

# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

January, + 1967

Number 1

### ASSOCIATION ACTIVITIES

#### SENATOR MURPHY ATTACKS CORRAL CANYON REACTOR SITE

Senator George Murphy, in a recent letter to Dr. Glenn Seaborg, Chairman of the AEC, has strongly criticized the governmental staff procedures in selecting Corral Canyon as a site for a nuclear power generator in Malibu. He noted that the Regulatory Staff has requested a reversal of the decision of the Atomic Safety and Licensing Board regarding the safety of the site, a decision reached after 41 days of hearings in Santa Monica.

Senator Murphy suggested that the staff, "... having made a hasty and possibly ill considered judgment in the first place, based on incomplete and erroneous information, now finds itself backed into a corner, its infallibility successfully challenged, its 'facts' controverted and its conclusions found wanting, and is trying to save face". He noted that the Los Angeles Department of Water and Power, after agreeing to attempt to redesign the proposed plant to meet the objections of the Licensing Board, now is objecting to the decision of the Licensing Board itself.

The Corral Canyon proposal has developed into a heated controversy in geological circles because of the appearance of distinguished geologists for both sides during the hearings.

During the hearings, according to Senator Murphy, it was proved that the Regulatory Staff had "caused the wording of a key conclusion of the USGS to be changed against the wishes of the authors of the report". This wording affected the USGS conclusion regarding the risk of ground displacement at the site. He also remarked on the many parallels between Corral Canyon and a proposal to build a reactor at Bodega Head near the San Andreas fault. The Bodega Head site has subsequently been rejected.

In his letter, Senator Murphy advised the AEC to review their site selection program to permit thorough assessment of geological factors involved prior to the initial application. He observed that "the Corral Canyon case raises serious questions concerning your - - procedures for licensing nuclear facilities as well as questions regarding the competency and objectivity of the Regulatory Staff in making judgments to the public health and safety".

He noted that some of the interested parties have recommended a congressional investigation into the whole field, but indicated his reluctance to support such a hearing "when such simple, corrective measures seem to be so available".

#### PACIFIC SECTION AAPG SPECIAL LUNCHEON MEETING

"Oil Exploration in North Alaska", a 16 mm color movie filmed and narrated by Dr. Sigmund Snelson, Shell Oil Company, Los Angeles, 12 Noon, February 2, 1967, Rodger Young Auditorium, 936 W. Washington Boulevard, Los Angeles.

For reservations, call Mrs. Dorothy Conley, Humble Oil & Refining Company, phone 879-2700, ext. 317, or write Glen Specht, Humble, 1800 Avenue of the Stars, Gateway East, Los Angeles 90067

#### NORTHWEST GEOLOGICAL SOCIETY

The monthly dinner meeting was held at the Country Broiler south of Seattle on Tuesday, December 6. AAPG Distinguished Lecturer E. L. Dillon presented a most interesting talk entitled "Modern Geology Requires Modern Technology". One of the largest groups of the year attended the meeting to hear about the latest tools of the geological profession.

#### CALENDAR

January 10 is set as the next meeting for the Northwest Geological Society at the Poodle Dog Restaurant in Fife. Dave Rahm of Washington State University will discuss "Aerial Views of Northwest Geology". Happy Hour at 6:00 P.M. - Dinner at 7:00 P.M.

In February AAPG Distinguished Lecturer Dr. A. W. Bally, Manager of Exploration for Shell Development in Houston, will deliver his talk on "Oil and Gas Exploration, Seismic Reflections and Mountain Building in the Canadian Rockies". Tentative plans call for the meeting to be held February 21 at the Poodle Dog.

\* \* \* \* \*  
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1967 - 1968

Ballots will be mailed in mid-February

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PACIFIC PETROLEUM GEOLOGIST

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Assistant Editors:	Deane Oberste-Lehn Bob Yeats
Selected Bibliography	Lucy Birdsall
Cartoonist	Jack Nisbet

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DEADLINE FOR NEXT ISSUE----January 20, 1967.

NOTE FROM THE EDITOR:

The PPG typewriter with the special large type has been ailing for some time. During the typing of this issue, it finally slipped into a coma so we hope that this small type will be legible.

## The Professional Corner

### JOBS FOR GEOLOGISTS - A NEW CYCLE BEGINS

(Editorial)

A number of petroleum geologists attended the National G.S.A. meeting in San Francisco in November. Many things were impressive - - two days of heavy rain (more like Houston than San Francisco), an array of outstanding papers on the San Andreas fault, geomagnetic reversals, sea floor spreading, and other matters. But perhaps the most startling observation was the number of jobs for geologists that are now available.

The national convention of the G.S.A. is sort of a geological Farmer's Market - - job opportunities are posted on a large bulletin board, prospective candidates sign up for interviews, and there is much dickering in the hallways over salaries, job opportunities, and so forth. It is clear that today the geologist is in demand. The blossoming of local campuses of state universities in California, New York, Illinois, and elsewhere requires a large number of PhD's to staff the local earth sciences departments. The U.S.G.S. is hiring new people. The junior colleges are expanding their earth sciences offerings. The mining companies are looking for people. And, yes, so are the oil companies.

The cycle was predicted by nearly everyone. A few years back, when geologists were pounding the sidewalks, undergraduate enrollments dropped drastically. Now, a small crop of graduates is ready for employment in an expanding, competitive job market.

To be sure, the employers are not hiring indiscriminately. The dissatisfied petroleum geologist who, upon accepting employment, gave up reading the current literature in favor of sliding E-logs and trying to keep the boss happy, will not find a job. But to the experienced geologist who has maintained himself professionally, horizons are indeed broad, even with only a master's degree.

There is a note to major oil company management in this. No longer do the major oil companies enjoy a large salary advantage over the universities, at least not the larger universities. No longer do the majors hold a thumb over their geologists because of limited opportunity elsewhere.

Clearly, if the oil companies wish to maintain imaginative, highly capable staffs, to search for expensive offshore oil professional upgrading is necessary, both in salary and in professional recognition. And, if the money placed on the table at the recent Federal drainage sale is an indication of things to come, such upgrading is an essential investment in the future of West Coast oil.

- Bob Yeats -

## AAPG DISTINGUISHED LECTURER SERIES

## "Modern Geology Requires Modern Technology"

by Ed. L. Dillon, Shell Oil Co.

The marked increase in the use of computers by geologists is having a pronounced effect both in the field of oil and gas exploration and in management reporting. The number of geologists who are effectively using new computer techniques is increasing, but unfortunately at a rate slower than is justified by the versatility of these techniques. A number of geologists risk falling behind professionally because they are not remaining abreast of the latest technology which can be applied to their chosen field.

One of the problems facing the oil and gas industry is the assimilation of the large quantity of information which is being made available for the very first time through various computer file and retrieval systems. During 1966 the various well data systems, which include most of the United States and parts of Canada, released to their subscribers some one billion characters of basic well information in machinable form. The continuation of the work of these systems during 1967 will increase this volume of machineable data to approximately two billion characters of information. This is not new information: it is information which has been buried in the files of the oil and gas companies and the individual geologists because it was previously in a form which could not be analyzed effectively. A natural partner to this generation of large machine files is the development of programming techniques that offer much more powerful methods for analyzing geological data. In most cases, the publication of these new programs has been limited to special releases by state surveys and universities. There has been too little publication of the results of applying these programs to the analyses of geologic data in oil and gas producing basins of economic importance. Through simple illustrations and a few direct examples, it is possible to show how these techniques may lead directly to the finding of oil and gas prospects.

One of the most active areas of progress in management reporting has been the development of statistical data gathering and compilation techniques, led by the AAPG's Committee on Statistics. This effort has come at an opportune time for it fits in perfectly with a greatly increased demand for information, as voiced by the United States Department of Interior, with the increasing awareness of company management and state surveys of the importance of well statistics, and the efforts of the American Petroleum Institute to establish certain basic standards for the handling of well data.

## UNIVERSITY OF SOUTHERN CALIFORNIA

For a number of years, this department has undertaken to provide advanced courses in the evening program not only for people interested in higher degrees, but also for those persons in industry who wish to expand their training in some particular field.

The department is offering the following courses in the evening program during the Spring Semester, 1967. Registration will be February 2 - 4

Ground Water	6-9 P.M.	Monday
Advanced Structural Geology	7-10 P.M.	Thursday
Engineering Geology	6-8 P.M.	Thursday
Lunar Geology	6-10 P.M.	Tuesday
Remote Sensing	6:30-8:30 P.M.	Wednesday

In addition, Oceanography will be offered at 4 P.M. Wednesday and Friday, and Petrography at 4 P.M. Tuesday, in case late-afternoon classes can be taken.

## COAST GEOLOGICAL SOCIETY

The monthly dinner meeting of the Coast Geologic Society was held in the Jet Room at Ventura on November 9. Our guest speaker was Mr. Louis F. Villanueva, geologist with Tidewater Oil Company. Mr. Villanueva's talk was titled, "Oil Exploration in the Spanish Sahara, Africa".

He presented a resume' on the logistics, operational procedures employed, and the geology of the Spanish Sahara and Canary Islands. The talk was supplemented with colored slides of exploratory activity, and the long "commute" from the Canary Islands.

Mr. Villanueva's assignments with Tidewater Oil have been in the Ventura Basin, Offshore Los Angeles, San Joaquin, and Sacramento Basins. His foreign work has included study of Bolivia, Paraguay, Peru, and Argentina, and the more recent assignment on the Spanish Sahara. The discussion of this "African Campaign" covered exploration activity from the initial reconnaissance to the drilling of a wildcat well.

Continental Oil at Ventura reports that JIM STEVENS is in the hospital for surgery and will be out of pocket for a couple of weeks. Jim recently returned from his vacation. Some vacation that must have been!

In addition, BOB BERINGER is nursing aches and pains from his first encounter with skis in the Sierra over Thanksgiving holiday.

DON DE MAY - new geophysicist from Billings is a scuba diving enthusiast. Wild bunch these Continental boys!

At the recent GSA meeting in San Francisco BRICK ROBINSON, DON LINDSEY, BOB SNEIDER, SIG SNELSON, NORM MC IVER, and JIM ELISON of Shell Oil were careful not to let the natural outcrop of the area go unattended. Of particular interest to the Shell delegation was the structure and outcrop distribution of the North Beach area.

## SAN JOAQUIN VALLEY

January 10, 1967

Tuesday Evening, 6:30 P.M.  
Social Hour 5:30, American Legion Hall, 17th & L Streets Bakersfield: San Joaquin Geological Society, "The Application of Passive Microwave Radiometry to Geological Mapping", by J.M. Kennedy, Advanced Microwave Systems Division of Space General Corp. (Mr. Kennedy was formerly an exploration geologist with Superior Oil Company.)

January 9, 1967

Monday Evening, 7:30 P.M.  
Bakersfield College, Science & Engineering Building, Room 56. Biostratigraphic Seminar, "The Distribution of Upper Cretaceous Planktonic Foraminifera in California", by Dr. Robert G. Douglas, University of California, Davis.

February 6, 1967

Monday Evening, 7:30 P.M.  
Bakersfield College, Science & Engineering Building, Room 56. Biostratigraphic Seminar, "Modern Foraminiferal Faunas from off the Oregon Coast", by Dr. Gerald A. Fowler, Oregon State University.

PERSONALS

Recent visitors to the U.S.C. campus were DR. KIYOSHI ASANO and DR. YOKICHI TAKAYANAGI of Tohoku University, Sendai, Japan. While there, they participated in a symposium on the Neogene of the Pacific Rim in which DR. ORVILLE BANDY of U.S.C., DR. JAMES KENNETT of New Zealand, and local geologists participated. DR. JAMES INGLE of U.S.C. is presently at Tohoku University on an exchange arrangement.

DICK STORY, Shell, Los Angeles, has been transferred to the Area Staff. Replacing him as Northwest Division Manager is QUEY HEBREW, Chief Geologist. The new Chief Geologist will be former West Coaster, WALT WINFREY, who is presently in Houston, Texas with Shell Development Company.

Recent additions to the Shell Development staff in Ventura are ART SYLVESTER, who recently received his PhD from U. C. L. A., and BOB SMITH, from the Los Angeles office, and JACK HOWARD, Shell Development, Houston.

January will see the return of DANA BRAISLIN from Olympia, Washington to Los Angeles. Dana has been District Geologist for Union at Olympia for 5 years and during that time has become a well known supporter of the Pacific Northwest. HAROLD BILLMAN will remain as Union's Exploration representative for Washington and Oregon.

DREW HAMAN is a new paleontologist in Standard's Seattle office. Drew is a native of Wales and recently obtained his Doctorate at the University College of Wales.

It has been reported that JOE SCHWEITZER of Standard in Seattle and his family are traveling to Southern California for a vacation in the "sun" over the Holidays.

MR. & MRS. DARRELL KIRKPATRICK, Consultant, Bakersfield, returned November 17th from a six week tour of Europe and the Near East. They visited the IVANHOES and CHRISTIANSONS in Rome and the ED WELLBAUM family in London. They just barely beat the Northern Italy floods when they left Venice.

DICK VAUGHN, Occidental, is back from Libya to spend the holidays in Bakersfield.

MRS. WES BRUER is wearing a plaster-of-paris stocking for the Holiday Season. WES insists that he didn't push his wife off the curb when she suffered a broken leg.

BILL PARK, AAPG AND AIPG member, has been appointed to Congressman-elect Bob Mathias' Staff as Administrative Assistant. Bill has been an Associate Oil and Gas Engineer with the California Oil and Gas Division for the past 14 years. He has been serving on the Bakersfield City Council also. Best of luck, Bill, on your new endeavor.

BOB CRITCHLOW, Occidental, has returned to Bakersfield after spending several months in Libya.

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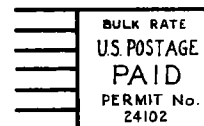
Volume 21

Number 1

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10000 Santa Monica Blvd.  
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# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

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Number 2

### ASSOCIATION ACTIVITIES

#### LIVING UP TO OUR NAME

Within the last couple of years, we have been reminded repeatedly that "Petroleum" is our middle name. I have especially tried to remember this when soliciting papers for the noon luncheons at the Rodger Young Auditorium. As a result, we have had papers with subject matter ranging from space photography to computer technology, all presented within the context of usefulness to petroleum geologists. The speakers are to be commended for excellent talks, and the attendance has been good. Yet, I wonder if our technical meetings really live up to that which our name implies.

If you will look at our speaker resources, you will see what I mean. Of our first eight speakers three have been consultants working on projects outside of the petroleum industry, two have been University personnel, one has been a government scientist, one has been a distinguished lecturer (Oil Company employee) and one has been a local Oil Company employee. We are indebted to people from outside the industry for contributing to our knowledge, and ask that this flow of information be continued. I believe, however, we can all see a distinct lack of papers coming from the petroleum industry itself.

In looking for means to correct this situation we may find inspiration in the list of "Research Needs" published in the August 1957 Bulletin. Of all the exotic research needs rated at that time, one listed among the most important was "Detailed Studies of Producing Fields." Here, I believe, is a challenge to the great majority of our membership, the operations personnel. Our colleagues in research can theorize sedimentary and structural geology, oil source, hydrodynamics, capillarity and so forth, but we in operations have the responsibility of testing these theories in every prospect we generate and every well that we drill. Reporting on the validity of these theories in field situations should be a professional obligation of each of us.

It is realized that much data obtained during drilling operations must be held confidential so long as it has competitive economic value. Note, however, that nearly 2,500 wells are drilled in California each year and, certainly, some of these wells must have stories which can and should be told. Also, isn't there some data which was confidential seven or eight years ago, but can now be released?

As I write this I am reminded of an unusual tilt of the water table in the "X" Pool. And what about those wet sands 100' above the "Main"? Why haven't hydrocarbons accumulated in them?

How about you? Remember, "Petroleum" is our middle name. Lets live up to it. If you have a paper on petroleum geology, please let me know.

Glen Specht  
Noon Luncheon - Program Chairman

#### ANNUAL HOLIDAY DINNER-DANCE DRAWS LARGE TURNOUT

More than one hundred couples, the largest attendance of the decade, enjoyed the Annual Holiday Dinner-Dance of the Pacific Section AAPG-SEG-SEPM, held December 16th in the Banquet Rooms aboard the S.S. Princess Louise at Terminal Island. The evening opened with cocktails and hors d'oeuvres provided thru the courtesy of our many friends among the service companies. Dinner - cruise ship cuisine - was served in the glass-enclosed dining room in the fantail, overlooking the harbor, and was followed by dancing to the music of Carrol Wax and his Orchestra.

Dance Committee Chairman Lou Heintz is to be commended for a noteworthy evening. The beautiful table decorations were provided by Barbara Heintz and her bridge club. Also assisting in the arrangements were Tom Wright and Glen Campbell.

The Pacific Section is especially appreciative of the fine support given by the following organizations:

Mercury Christensen Diamond Bit Co.  
United Directional Services  
Custom Control Co.  
Western Offshore Drilling and Exploration Co.  
Schlumberger  
Geologic Engineering Service  
Munger Oilogram  
Byran Jackson  
McCullough Tool Co.  
Borst & Giddens  
Exploration Logging  
United Geophysical  
Pacific Oil Well Logging  
Rapid Blueprint  
Western Geophysical  
Dyna Drill  
Geological Exploration  
General Oceanographics  
W. W. Murphy  
Core Lab

#### LOS ANGELES -- NOON LUNCHEON

March 2nd, Roger Young Auditorium. Dr. Roland von Huene, U.S.N.O.T.S. at China Lake will speak on "Marine Geophysical Observations at the Juncture of the Murray Fracture Zone and the Transverse Ranges".

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San Joaquin	Chester H. Rudel
Membership Secretary	Pat Metcalf

NEXT DEADLINE - FEBRUARY 15

FLASH! News correspondents needed for L. A. Basin representation - no previous experience required. Contact the P. P. G. Editor, John Terpening, at 772-4115

# *The Professional Corner*

DEPARTMENT OF GEOLOGY  
UNIVERSITY OF SOUTHERN CALIFORNIA  
ANNOUNCEMENT OF EVENING GEOLOGY COURSES FOR  
SPRING SEMESTER, 1967

A new course, Seminar of Geologic Interpretation of Remote Sensing Imagery (Geology 600) will be taught by Dr. Floyd Sabins of Chevron Research Corporation in University College (evening school) during the Spring Semester. This two unit course is especially designed for interested personnel in the petroleum and aerospace industries. It will meet on Wednesday evenings from 6:30 to 8:30. Registration for evening classes is from 1:00 to 4:30 P.M., Friday, February 3 and 8:30 until noon on Saturday, February 4.

The purpose of the seminar is to explore the earth science applications of remote sensor imagery, including the ultraviolet, infrared, and microwave bands of the electromagnetic spectrum. Three broad questions vital to remote sensing will be examined: (a) how do earth materials interact with various bands of the electromagnetic spectrum, (b) how are these energy changes detected and imaged, and (c) how is the remote sensor imagery interpreted? Throughout the seminar, emphasis will be on working with imagery, rather than theoretical and equipment design problems.

Major topics encompassed by the course are the earth's energy field covering the electromagnetic spectrum, and matter and energy relationships; detection and imaging in which types of sensor, photographic, microwave, and infrared imagery will be studied; and imagery interpretation. Field problems will include ground truth studies and sensor imagery studies of the Pishah Craters, Indio Hills, Imperial Valley, and the Carrizo Plains. One or two weekend field trips will be made to several of these localities. Other applications of remote sensing for pollution studies, oceanography, military terrain analysis, forestry, and engineering will be investigated.

OTHER UNIVERSITY COLLEGE (EVENING) COURSES  
AT USC:

Ground Water, Geology 525-L, 6:00-8:00 Monday, Dr. John F. Mann, Jr.

Seminar in Lunar Geology, Geology 565, 6:10-7:30, and 8:00-10:00 Tuesday, Dr. Jack Green.

Seminar in Advanced Structural Geology, Geology 532, 7:00-9:50, Thursday, Dr. Gregory A. Davis.

Seminar in Engineering Geology, Geology 536, 6:00-7:40 Thursday, Dr. Richard H. Merriam (Prerequisite, Geology 527, Engineering Geology).

Over the Hill and Down the Creek, by Walter Youngquist.  
The Caxton Press, Caldwell, Idaho, 1966, 322 p. \$5.00

Normally the Pacific Petroleum Geologist doesn't have book reviews, since other publications contain adequate sections for reviewing geological literature. But Youngquist's book is of such a nature that a review in the P.P.G. seems not only desirable but necessary.

Most of us are aware that the personal lives of many of our colleagues contain many adventures which, if collected in book form, would make mighty interesting reading. Whenever I sit in on a bull session with a group of field geologists, and the conversation runs from Alaskan bear stories to mapping in the Spanish Sahara, Tierra del Fuego, or other out-of-the-way places, I generally end up thinking somebody ought to be taking notes.

Well, somebody was, and the result is Over the Hill and Down the Creek. As Youngquist says in his foreword, "Some of the experiences which I and my fellow geologists have had seem to me to be too rich a lore to be lost; unfortunately, to date these stories have been largely unrecorded. I heard these tales around campfires in the Andes, in the lounge of the Biltmore Hotel during a lull in the annual meeting of the A. A. P. G., and on summer field trips with my graduate students."

Stories about geologists have appeared in book form before. But the average reader finds it difficult to identify with giants of the profession like Bailey Willis in A Yanqui in Patagonia or Hans Cloos in Conversation with the Earth. Youngquist's book is, rather, our story, including the trials and tribulations of graduate school, encounters with rattlesnakes in the Pacific States while doing field work, the economic tribulations of an under-paid geology professor ("too much month at the end of the money"), and field work and home life while working for an oil company in South America. In reading the book, you feel that you're reading about yourself, or somebody you know.

The ease of identification was such that my wife appreciated the book more than I did, which may be another way of saying that Youngquist told my story better than I could myself. At least, she became aware that the mode of dress, the conversation, the interests, and the problems of my circle of acquaintances were somewhat related to the profession as a whole rather than individual peculiarities, and, therefore, something she could mention in public. (Flushed with this success, I now plan to give the book to my mother-in-law.)

It is the ease with which Youngquist tells the geologist's story to laymen that has led to this book review. At a time when geology is seeking its own recognition commensurate with that given to chemistry, physics, and the life sciences, the personal side of a geologist's life needs to be told. Youngquist has done this with a light-hearted, humorous style that makes the book a real pleasure to read.

The book is perfect for the high school junior or senior who is casting about for his life's work and may, in his investigations, consider geology. There is excellent source material about the profession available to him through A. G. I. But the clincher may be this book, which makes me wish that a copy of it might be on the shelf of every high school library.

I'll let Youngquist say it. "The colorful old prospector... has a modern equivalent - the professional geologist. He uses a Jeep instead of a burro. And he may even have a Ph.D., but the rattlesnakes he meets aren't impressed, nor is the rain, the snow, the mud, nor the poison ivy..."

"The geologist must be equally at home in a dugout canoe in western Brazil, or in the research laboratories and classrooms of a university. And therein lies the theme of this book. To find new oil fields to supply your gasoline needs, or find the copper mine from which will come your latest model TV set five years hence, some geologist is at this moment paddling along an Amazon tributary; another is walking across the central Australian desert. A third one is probably in the hospital recovering from one or the other of the trips."

In what other profession is it possible to "visit the Grand Canyon and claim (sometimes even legitimately) that he is working?"

Bob Yeats

#### COAST GEOLOGICAL SOCIETY

On Friday December 9, 1966 one hundred and four members and guests of the Coast Geological Society thoroughly enjoyed their annual Champagne Dinner Dance. The dance was held at the Ventura Women's Center overlooking the city and dancing, dining and champagne toasts lasted until 1:00 A.M. Success of the affair was insured by generous contributions from the following listed companies:

Magcobar  
Geological Exploration Inc.  
W. W. Murphy  
Exploration Logging Inc.  
Western Offshore Drilling and Exploration Co.  
Borst and Giddens Logging Service  
Aden W. Hughes  
McCullough Tool Co.  
Schlumberger Well Surveying Corp.  
Baroid Well Logging Service  
Core Laboratories Inc.  
Dave Dimitt Directional Drilling  
Geologic Engineering Service  
Pacific Oil Well Logging Inc.  
Lane Wells Co.

#### SAN JOAQUIN SECTION

#### CALENDAR

March 6, 1967 Monday evening, 7:30 P.M., Bakersfield College, Science & Engineering Building, Room 56, Biostratigraphic Seminar "Proposed USGS Studies on San Andreas Fault", by Dr. Robert E. Wallace, USGS - Geologic Division

March 14, 1967 Tuesday evening, 6:45 P.M. Social Hour 5:45 P.M. American Legion Hall, 17th & L Streets, Bakersfield, California San Joaquin Geological Society "Railroad Gap Area - New Reserves in an Old Province" by J. S. Cunningham and M. Zeni. Standard Oil Co. of California, WOI.

April 7, 1967 Monday evening, 7:30 P.M., Bakersfield College, Science & Engineering Building, Room 56, Biostratigraphic Seminar "Ecology of Recent Radiolaria", by Dr. Richard Casey, University of Southern California.

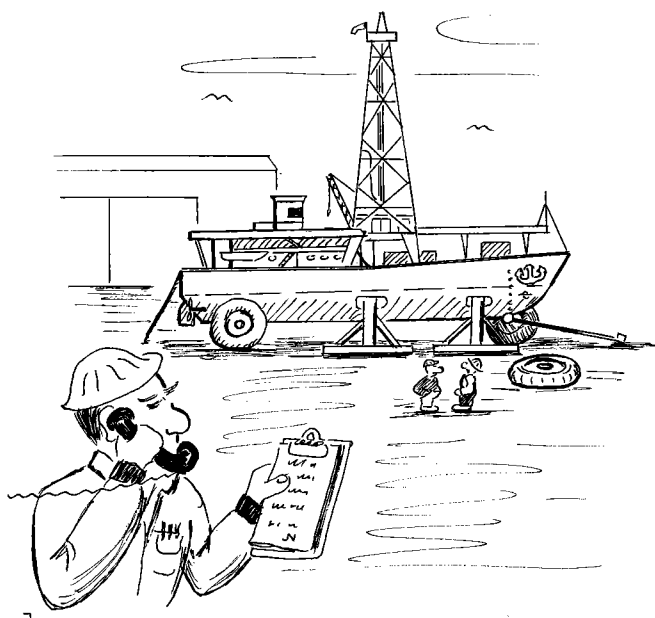
## AAPG - HEADQUARTERS - NEWS RELEASE

MICHEL T. HALBOUTY, addressing the Interstate Oil Compact Commission, December 13, stressed the looming shortage of domestic oil the U. S. is facing unless better conservation methods are practiced and new oil reserves are discovered.

He urged a "crash program in exploration, since any surplus of oil and gas production is temporary and before long the country will be facing a serious shortage in domestic supplies of oil and gas."

The antidote for this is to bring the wildcatter back into the picture, said MR. HALBOUTY. He explained that the wildcatter must be allowed to make a profit, and one way to do that would be for the Federal government to stop offering offshore leases for sale, but a more important way would be to require by law that all oil and gas prospects and fields be unitized.

Halting of the sale of offshore leases, where produced oil and gas belongs to the government, would be a tremendous incentive for domestic explorers to return to the onshore hunting grounds, he said.



*THAT'S RIGHT, BOSS — ONE MORE WHEEL  
AND A BIG ENOUGH TRACTOR, AND WE'RE  
BACK IN BUSINESS.*

Please address all comments directly to the  
National AAPG. - Editor PPG -

## ABSTRACT

HENRY H. NEEL

The Metropolitan Water District of Southern California supplies water to 26 different distribution agencies in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura Counties. In its future planning for additional supplies the District has been interested in determining the feasibility of desalting sea water. With this in mind, it entered into a contract in 1964 with the Office of Saline Water of the Department of Interior, and with the Atomic Energy Commission to jointly sponsor an engineering and economic feasibility study for a combination nuclear power and desalting plant.

Bechtel Corporation was awarded a contract to perform this study. The initial phase of the study consisted of a preliminary survey of possible sites for producing desalted water and introduction of this water into the MWD system. Seventeen sites in Ventura, Los Angeles, Orange and San Diego Counties were evaluated. Of these, only ten were strategically located for delivery of the 150 million gallons per day into the system. Three of these ten were selected as being superior. Detailed analyses were made for each of these three sites in the fields of engineering, soil engineering, meteorology, geology, oceanography, marine biology and seismology. These analyses indicated that an artificial island opposite the Bolsa Chica Gun Club was the most desirable site. This has been named the Bolsa site. The specific location for the Bolsa site was made only after geological study of the area between Sunset Beach and Huntington Beach determined the most optimum geologic setting.

The geological problems which were particularly considered in this study were:

1. Active faulting, through or adjacent to the proposed site which might be expected to produce permanent differential displacement.
2. Active faulting near the site which might be expected to produce significant temporary displacement as a result of earthquakes generated by fault movement.
3. Subsidence caused by the consolidation of young sediments underlying the alluvial deposits on the ocean floor.
4. Subsidence or consolidation caused by the reduction of formation pressure due to the withdrawal of oil or gas.
5. Subsidence caused by the withdrawal of ground water.

In addition to the information available from subsurface oil-well data, core-hole data, electric logs of oil wells and core holes and data on known faulting in the Huntington Beach offshore field, all of which was generously furnished by various oil companies, it was necessary to do considerable work specifically for this project. Seismic profiles made with a high resolution Boomer and Sparkarray provided basic data for interpretations of the geological conditions existing above the shallowest oil well information.

The seismic profiles revealed faulting, unconformities and pinch-outs, all of which could adversely affect the installation if it were improperly located. One fault appears to come to the surface and actually exhibits a submarine scarp. Other faults showed no movement since the Pleistocene.

The clarity with which these records showed faults and pinch-outs of even very minor significance, indicated that any geological hazards of sufficient magnitude to be serious could have escaped notice. Notwithstanding this, however, the next phase of the investigation will include geological work in much greater detail to safeguard against the possibility of having missed any particular geological factors which should be considered.

**Page 6**

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I 512: Geologic map of California. Compiled by U. S. Geological Survey and California Division of Mines & Geology (Scale 1:2,500,000) (Note: This is a correction. Incorrectly listed in December issue of this paper as I-521. Ed.) 25¢

**Open Filed Reports (Inspection only)**

Location of pingos and pingolike mounds observed from the ground, from aerial reconnaissance, and on aerial photographs in interior Alaska, by G. William Holmes. 13 pages.

Progress report on analog model construction, Orange County, California, by E. H. Wall, and J. A. Moreland. 49 pages 4 figs.

Methods for estimating ground-water withdrawals in Madera County, California, by William Ogilbee. 42 pages 1 fig.

Geologic maps of Bradley and Tierra Redonda Mountain quadrangles, Monterey and San Luis Obispo Counties, by David L. Durham. 2 maps, scale 1:24,000

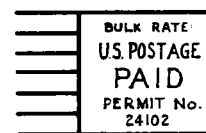
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**Number 2**

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## PERSONAL ITEMS

BOB FLAHERTY, formerly District Manager for Atlantic Richfield, Bakersfield, has been transferred to Lafayette, Louisiana in a similar position. BILL KEELER formerly in Dallas replaces Bob.

JOHN WEIDMANN visited the Bakersfield office of Atlantic Richfield recently. He is returning to the North Sea area for a minimum two year assignment.

REX YOUNG, Atlantic Richfield, Bakersfield, can be seen in the late evenings and early mornings, piercing his way through the fog on his new semi-motorized bicycle. He has to use a little manpower to help the motor over Bakersfield's small hillocks.

JUDY WRAY became the bride of TAD FYOCK, Geologist with Texaco, Bakersfield, on December 21, 1966 in Oregon.

MARK ROBINSON, formerly from New Orleans, replaces HOP CONGER as Division Exploration Manager for Shell in Bakersfield. HOP CONGER is transferred to the Houston Division as Senior Staff Geologist.

GUY L. BURGE, JR., Geophysicist, formerly with Superior in Casper, Wyoming is now employed by Union Oil Company in Bakersfield.

JOHN KELLEY, a recent graduate of San Jose State has joined the USGS staff at Elk Hills.

In August, 1966 D. KEITH MURRAY joined Sinclair Oil & Gas Company's Western Region office in Denver as Senior Geologist.

A. A. CARREY has returned from Manila to Long Beach and opened a consulting office at 2875 Cherry Avenue - Phone 427-8425.

William H. LeRoy has been named Manager of Exploration for Reserve Oil and Gas Company, effective January 1, 1967.

## BIBLIOGRAPHY OF RECENT PUBLICATIONS

GEOLOGICAL SOCIETY OF AMERICA BULLETIN  
vol. 77, no. 8, August 1966

Structural interpretation of sandstone dikes, northwest Sacramento Valley, California by Gary L. Peterson.

GEOLOGICAL SOCIETY OF AMERICA BULLETIN  
vol. 77, no. 10, October 1966

Kelso Dunes, Mojave Desert, California, by Robert P. Sharp

Evidence for an early Recent warm interval in northwestern Alaska, by David McCulloch and David Hopkins

Paleoecologic implications of Early Permian fossil communities in eastern Nevada and western Utah, by Calvin H. Stevens.

GEOLOGICAL SOCIETY OF AMERICA BULLETIN,  
vol. 77, no. 11, November 1966

Gravity in the eastern Klamath Mountains, California, by T.R. LaFehr

Diagenetic stability of temperature-sensitive skeletal properties in *Mytilus* from the Pleistocene of California, by J. Robert Dodd.

K/Ar chronology of the Tucson Mountains, Pima County, Arizona, by Michael Bikerman and Paul E. Damon

Facies changes in the Cambrian Muav Limestone, Arizona, by W.H. Wood.

Tieton volcano, a Miocene eruptive center in the southern Cascade Mountains, Washington, by Donald A. Swanson

### U. S. GEOLOGICAL SURVEY

Professional Paper 403-I: Smaller foraminifera from Guam, by Ruth Todd 75¢

Professional Paper 422-J: Resistance to flow in alluvial channels, by D.B. Simons and E.V. Richardson 50¢

Professional Paper 500-C: Probability concepts in geomorphology, by A.E. Scheidegger and W.B. Langbein 20¢

Professional Paper 524-F: A compositionally zoned ash-flow sheet in southern Nevada, by P.W. Lipman, R.L. Christiansen & J.T. O'Connor \$1.00

Professional Paper 543-B: Geomorphic effects of the earthquake of March 27, 1964 in the Martin-Bering Rivers area, Alaska, by S.J. Tuthill and W. M. Laird 30¢

Professional Paper 544-A: Effects of the March 1964 Alaska earthquake on the hydrology of south-central Alaska, by R.M. Waller 30¢

Professional Paper 544-B: Effects of the March 1964 Alaska earthquake on the hydrology of the Anchorage area, Alaska, by R.M. Miller 60¢

Professional Paper 560-B: Geology of the Arabian Peninsula, Yemen, by F. Gueken, Translated from the French by S.D. Bowers 30¢

Professional Paper 560-H: Geology of the Arabian Peninsula, Eastern Aden Protectorate and part of Dhufur, by Z.R. Beydoun. \$1.00

Bulletin 1240: Sources of fertilizer minerals in South America - a preliminary study, by J. F. Harrington, D.E. Ward, and V.E. McKelvey 60¢

Bulletin 1244-A: Changes in stratigraphic nomenclature, by the U.S. Geological Survey, 1965, by G.V. Cohee and W.S. West 25¢

Water Supply Paper 1592-C-D:  
C: Free-surface instability correlations.  
D: Roughness-concentration effects on flow over hydrodynamically rough surfaces, by H.J. Koloseus and Jacob Davidian 40¢

Water Supply Paper 1610-D: Waterpower resources and Reconnaissance geology of sites in the Alsea River basin, Oregon, by L.L. Young, D.W. Neal, and D.L. Gaskill 70¢

# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

March, + 1967

Number 3

### ASSOCIATION ACTIVITIES

#### AAPG UNDERWATER FIELD TRIP --

Persons wishing to take part in the first underwater field trip to be sponsored by a national convention should send their applications with the required \$15.00 deposit to:

John K. Cassell  
Exploration Department  
Standard Oil Company  
P. O. Box 606  
La Habra, California

A questionnaire will be sent to all applicants to determine their equipment needs (U.S. Navy Electronics Laboratory will furnish tanks, regulators, fins, and face plates ) and sizes.

As now planned, the first day will be spent 17 miles off San Diego at the Coronado Islands, Mexico studying the biogenous sediments, old beach levels, algal nodules, and erosion by organisms. The unique Miocene (?) sandstone and conglomerate beds exposed on the islands will also be available for sampling and study. These beds have many undescribed sedimentary features that will interest most geologists.

The second day will be spent in the heads of Scripps and La Jolla Submarine Canyons. Scripps Canyon is located just north of Scripps Institution of Oceanography and is cut in resistant Eocene shales, sandstones, and conglomerates. Submarine erosional features, organic-sediment mats, and evidence of mass movement of canyon fill are well demonstrated in this canyon. Gas is generated in the sedimentary fill and can be collected by interested participants.

One mile to the south, La Jolla Submarine Canyon presents an entirely different type of erosion than that seen in Scripps, in that it is cut through a thick section of Pleistocene alluvium and Holocene lagoonal sediments. The difference in erosional forms is due to the difference in competence of the two types of wall rock. Excellent comparisons can be made and related to features seen in ancient rocks. Pure carbonate beds 2 to 4 inches thick

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and of unknown origin are unique features of the lagoonal sediments. Submarine erosion has been measured to be as high as 2 feet per year in some of the channels cutting the head-wall of this canyon. Organic reworking is extensive. Submarine erosional features related to sand flows, slumping, bottom currents, along with burrows of different types are well developed.

The field party will be divided into two groups consisting of 3 five man teams. Each team will be escorted to key areas by two geologists from NEL familiar with the dive area. Underwater signs will be posted to explain the different stops along the underwater traverses. An illustrated field guide book will also be provided.

#### Classification Committee

The A. A. P. G. Classification Committee and the Conservation Committee have announced their new lists of "California Oil Field and Pool Names", and "California Gas Fields and Pools" effective January 1, 1967. Copies may be obtained by contacting M. C. Barnard, Jr., Atlantic Richfield Company, 5900 Cherry Avenue, Long Beach or by phoning 423-7921, Ext. 31.

Members of the Classification Committee are:

M. C. Barnard, Jr.	- Atlantic Richfield Company
Cliff Edmundson	- Shell Oil Company
R. R. Knapp	- Standard Oil Company
L. E. Chatfield	- Texaco, Inc.
Bernard Minch	- Union Oil Company
D. E. Ritzius	- Division of Oil and Gas
T. H. Sisk, Jr.	- Humble Oil & Refining Co.
J. D. Traxler	- Signal Oil and Gas Co.
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DEATH VALLEY FIELD TRIP

Bennie W. Troxel

The trip will commence at 1 P.M., Thursday, April 13 at the Grand Street entrance of the Biltmore Hotel. The route for the first day will be across San Fernando Valley, San Gabriel Mountains, San Andreas fault, Mojave Desert, Garlock fault, and through Owens Valley to Lone Pine.

Dinner at Lone Pine will be followed by a discussion of the Sierra Nevada and western Great Basin geology by Dr. Donald Ross, U.S. Geological Survey. On Friday, Dr. C. A. Nelson, Dept. of Geology, UCLA will guide the trip eastward over the White Mountains. The emphasis on this part of the trip will be upper Precambrian-lower Cambrian stratigraphy, a widespread thrust fault, and the effects of small plutons on Cambrian strata.

Eastward from the White Mountains we will see in the Last Chance Range middle Cambrian through Ordovician strata, more evidence of thrust faulting, and Tertiary volcanic rocks which cap and flank the range.

The latter part of the afternoon will be spent travelling southward in northern Death Valley, seeing numerous recent fault scarps, the Ubehebe crater (recent explosive?) and other features as time and interest permits.

The second evening will be spent at Furnace Creek Ranch where an outside bar and steak cookout will be the sole evening events.

The final day of the tour is a long one. Dr. James F. McAllister will discuss the Tertiary geology in Furnace Creek Wash. Thence we will travel south along the steep western front of the Black Mountains where numerous fresh fault scarplets are apparent. We will see good exposures of Precambrian rocks, some of which are separated from Tertiary rocks by "turtlebacks"; the Virgin Spring chaos; shoreline features of Pleistocene Lake Manly; the lowest point on land in the United States; and much more.

The trip will culminate in southernmost Death Valley where outcrops of upper Precambrian strata are well exposed. From there we commence a long evening trip back to Los Angeles where we hope to arrive back at the Biltmore Hotel around 10 P.M. Saturday. We plan to be at Baker in time to catch the 6:05 P.M. bus to Las Vegas if you prefer to debark there and fly home from Las Vegas.

The fee for the trip includes all meals and lodgings except for the final dinner on Saturday evening. Although a specific guidebook will not be available, a packet of information will be provided.

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The Thirteenth Annual Meeting and Field Trip of the Far Western Section, National Association of Geology Teachers will be held at San Bernardino Valley College, San Bernardino, California, on March 11-12, 1967. For details contact Joseph T. Allen, Jr., Secretary-Treasurer, FWS-NAGT, c/o Geology Department, San Bernardino Valley College, 701 South Mt. Vernon Avenue, San Bernardino, California 92403.

ABSTRACTA NEW CLASSIFICATION OF WATER LAID  
CLASTIC SEDIMENTS

M. L. Natland

Because of their economic importance as petroleum reservoirs, water laid clastic sediments may be usefully classified according to their mode of deposition, including transport, which determines to a great extent their lithologic composition. Although an infinite number of variables can affect deposition and composition, there are four principal processes of aqueous sedimentation which produce characteristic deposits herein designated as tractionites, gravities, turbidites and hemipelagites.

A tractionite is a bed of clean, winnowed sand or coarse clastics deposited by moving water which sorts the particles as it sweeps or drags them along the bottom. Tractionites are prevalent in river beds, beaches and offshore marine areas where bottom currents are strong enough to move coarse sediments. Ripple marks and other current-produced features are common. These beds contain little if any fine-particled matrix.

A gravite is a bed of poorly sorted clastics, varying in size from clay to boulders, deposited by a sedimentary flow in which the motivating force is gravity which causes the sediment as a unit to move down a slope with sufficient gradient at speeds ranging from very slow creep to considerable momentum. Bedding features are poor because the particles are not in suspension and, therefore, are not able to respond hydrodynamically. Fossils, if present, are randomly oriented and scattered through the heterogeneous mass. If the velocity of movement becomes great enough, the sediments may be stirred sufficiently with water to form a suspension mixture capable of generating a turbidity current.

A turbidite is a well graded sedimentary unit deposited rapidly from the suspended load of a turbidity current and includes all of the intervals, grading upward from coarse sand to silt and clay, resulting from a single flow. Since the prime motivating power of a turbidity current is the density differential between the turbid water with its suspended load and the clear water which it encounters, a turbidity current once generated can move along a flat bottom. Turbidites are well graded because particles in a suspension flow are able to respond hydrodynamically. When the suspended load includes a wide range of particle sizes, a "complete" turbidite is formed with at least three distinct divisions, the graded sand interval at the base followed by the current bedded interval and the pelitic interval. A turbidite is characterized by features indicating suspension flow, such as preferentially oriented megafossils, and hydrodynamically sorted microfossils, and an (10-30%) silt-clay matrix in the graded interval. Turbidites contain only reworked fossils are present.

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A hemipelagite is a layer of marine debris formed by the slow accumulation on the sea floor of organisms and fine terrigenous particles. While a hemipelagic deposit usually caps a turbidite, the hemipelagite is not part of the turbidite but actually marks an interval of quiet between turbidity current flows. Its thickness is related to the time during which this type of sedimentation occurs without interruption. This bed contains the only indigenous faunas in the turbidite sequence.

Examples of the preceding sedimentary processes and deposits will be discussed with the aid of slides and motion pictures.

Editor's note: This new classification of turbidites, to be presented by Dr. Natland of Atlantic-Richfield at the convention, will be illustrated in a field trip to the Hall Canyon, Wheeler Canyon, and Santa Paula Canyon sections of the Ventura basin Pliocene. These sections have been the "laboratory" in which the concepts of turbidity currents and of the use of benthonic forams as a key to water depths during deposition have been hammered out. The type Hallian and Wheelerian microfaunal stages of Natland will be visited on the field trip.

Some of the major contributors to this work will be present. These include, in addition to Natland, Dr. John Crowell of UCLA and Dr. Cortez Hoskins of Union Research.

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## BASEMENT MAP OF NORTH AMERICA

A "Basement Map of North America," published jointly by AAPG and the U.S. Geological Survey, went on the market January 3, it was announced nationally by the Department of the Interior.

The contoured surface of the basement is shown at 500-, 1,000-, 2,000-, and 4,000 - foot intervals; the deepest basins reach depths of more than 40,000 feet. The map also shows the nature of these rocks where exposed at the earth's surface in the Appalachian Mountains, over much of central and eastern Canada, in north central United States, in scattered mountain ranges of the Rocky Mountains, in the Sierra Nevada of California, and in the Coast Ranges of western United States and Canada.

This new map may be purchased by mail at \$1.00 per copy from AAPG headquarters, or from the U.S.G.S. distribution offices in Washington, D.C.; Denver, Colorado; and Fairbanks, Alaska. Copies may be purchased over-the-counter only at the following U.S.G.S. offices; Anchorage, Dallas, Denver, Los Angeles, Salt Lake City, San Francisco, and Spokane.

FIELD TRIP TO PLIOCENE SEAKNOLL IN THE  
VENTURA BASIN

The Balcom Canyon Pliocene section near South Mountain has been studied in detail by several groups with different backgrounds. R. F. Meade of California State College at Los Angeles, has studied the molluscs, J. J. Gouty and K. E. Green of Shell Oil Company have studied the benthonic forams, J. C. Ingle of U.S.C. has studied the pelagic forams and their relationship to the benthonic fauna, and R. S. Yeats of Shell Oil Co. has studied the physical stratigraphy and structure. A critically located ash bed has been dated radiometrically by W. A. McLaughlin and G. Edwards of Shell Development Co. Several of these people will be present as co-leaders on this field trip.

The result of an attempted integration of all these data is surprising. The coverage of this small but critical area from different perspectives may lead to a better understanding of Southern California biostratigraphy and paleogeography, and to a more accurate placement of the California section in the world-wide time scale.

The field trip will visit critical stratigraphic and paleontologic localities, with opportunities to collect faunas. The 8.5 m.y. ash bed in the Pico formation will also be visited. The field trip leaders may not all agree with one another, and the resulting discussion should be interesting.

The field trip area will figure in several convention papers. Yeats, McLaughlin and Edwards will discuss the ash bed; Meade will discuss the molluscs; and Bandy and Ingle will talk about the planktonic forams during the convention.

Suggested reading prior to the trip: Yeats, R.S., 1964, Pliocene Seaknoll at South Mountain, Ventura basin, California; Bull. AAPG, v. 49, p. 526-546, and abstracts of the convention papers cited above.

CHARTERED FLIGHT TO 23RD INTERNATIONAL  
GEOLOGICAL CONGRESS, 1968

AGI has made preliminary arrangements with Pan American Airlines for chartered air transportation to and from the 23rd International Geological Congress, which will be held in Prague, Czechoslovakia. A tentative schedule calls for departure from New York on August 6, 1968, and for the return flight, from Prague, on August 30. Geologists using this service thus will be able to participate in pre-Congress field trips.

The flight will accomodate about 165 people. In order to meet FAA requirements, they must have preregistered for the 23rd IGC, but wives and children of preregistrants also may be included. The round-trip fare between New York and Prague will be \$300 or less. This is a substantial reduction from the round-trip tourist rate or even group-travel rate.

Reservations for the chartered flight will be accepted by AGI as long as space is available. A deposit of \$15 (checks made payable to IGC-AGI Chartered Flight) is required with each reservation. The balance of the fare will be due in several installments before March 1968.

President Knapp called the meeting to order at 2:05 p.m. at the Standard Oil Company building in Los Angeles, California. Attending were: R.R. Knapp, J.F. Curran, W.F. Edmondson, T.L. Wright and J.N. Terpening. Invited guests present were T.A. Baldwin, J.O. Hazzard, L.O. Heintz, J.E. Kilkenny, W.R. Moran, J.M. Nisbet, and J.H. Wiese.

It was decided that President Knapp should ask Gordon Oakeshott to continue serving on the Distinguished Lecture Committee.

President Knapp reported that California had the highest number of new members joining the National AAPG during the past year.

Vice President Curran suggested that the Pacific Section publish a lexicon of geologic names. There was general agreement that this would be desirable. Members of this committee will check with Pacific Section members in this area to see how much support there might be for such a project.

Vice President Curran reported on the status of proposed legislation for the chartering of the geologic profession. At present the proposed bill has been approved by legislative council and with some minor changes is very nearly identical to the original bill drafted by AIPG. Some protests on this bill have been made to the Los Angeles City Council. When and if the bill is introduced it will probably be introduced by Assemblyman Lester McMillan from Santa Monica, in the Assembly Government Efficiency and Economy Committee which is the Assembly's corresponding committee to the Senate's Business and Professional Committee.

Treasurer Wright reported on financial trends in the Pacific Section. A very good response (about \$600.00 in sales) has been received from the list of available publications that was sent out with the dues notices.

It was noted that new members cost the Pacific Section as much and sometimes more than the income received from their dues payments. The primary variables are conventions, directories and technical publications. It was felt that the elimination of one or two issues of the Pacific Petroleum Geologist during the summer months would be a reasonable and satisfactory way of lowering expenses.

W. F. Edmondson  
Secretary

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Frank Carter, in charge of employment interviews at the convention, reports numerous responses from oil companies seeking to interview geologists - but very few geologists seeking interviews. If interested please contact Frank prior to or during the convention.

The Nominating Committee of the Northern California Geological Society has selected the following slate of nominees for NCGS officers for 1967:

President:	James W. Higgins Standard Oil of California
Vice President	Joe K. Morford Dow Chemical
Secretary - Treasurer	J.D. (Red) Cerkel Retired

Since we haven't detected any organized opposition, we fully expect that this will be the slate elected to serve us for 1967.

We all invite any of you who may be in town on Monday noon to join us for lunch at Montgomery House on Sacramento Street.

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JOURNAL OF SEDIMENTARY PETROLOGY,  
vol. 36, no. 3, September 1966

Deep submarine channel in Upper Miocene, Orange County, California, by J. Alan Bartow

Textural comparison of John Day volcanic siltstone with loess and volcanic ash, by Richard V. Fisher

AMERICAN JOURNAL OF SCIENCE,  
vol. 264, no. 9, November 1966

Comparison of interglacial marine stratigraphy in Virginia, Alaska, and Mediterranean areas, by Richard Foster Flint.

WASHINGTON DIVISION OF MINES AND GEOLOGY

Bulletin 52: Limestone resources of western Washington, by Wilbert R. Danner, with a section on the Lime Mountain Deposit, by Gerald W. Thorsen \$4.50

Reprint No. 10: Washington Mineral Deposits, by Marshall T. Huntting \$ .50

Bulletin 53: Stratigraphy and foraminifera of the Satsop River area, Southern Olympic Peninsula, Washington, by Weldon W. Rau \$1.50

OIL AND GAS JOURNAL, vol. 64, no. 45, November 7, 1966

Great Basin: giant sleeper of the west.

## U. S. C. NOON LECTURE SERIES

Meetings are held Tuesday noon (except where indicated otherwise), Room 102, east of the corner of 37th Street and Hoover Street (adjacent to Geology "A").

MARCH 28 - Middle Tertiary Paleobathymetry and Paleotectonics, San Joaquin Basin, California. Speaker: Dr. O. L. Bandy, Professor, Geology Department, USC. Chairman: D. Drake.

APRIL 7 - Geology of New England. Speaker: Dr. Rodman E. Snead, Associate Professor, Clark University. Chairman: B. Little.

APRIL 25 - Geometry, Age, and Mechanics of Thrusting, Clark Mountains Thrust Complex, Southeastern California. Speaker: Dr. G. A. Davis, Associate Professor, Geology Department, USC. Chairman: J. Brown.

MAY 9 - Tectonic Relationships of Serpentinities in the Cecilville Quadrangle, Siskiyou County, California. Speaker: Dennis T. Trexler, Graduate Student, Geology Department, USC. Chairman: L. Weismeyer.

MAY 16 - Contact Relationships Between the Franciscan Formation and Great Valley Sequence Northeast of Santa Maria, California. Speaker: James Brown, Graduate Student, Geology Department, USC. Chairman: P. Fleischer.

MAY 23 - Geological Exploration in Antarctica, an illustrated lecture. Speaker: Dr. James P. Kennett, Research Associate, USC. Chairman: F. Theyer.

## PERSONAL ITEMS

KLAAS VAN DER WEG of Mobil's Regional Office, after 15 years in Los Angeles, is being transferred to Mobil's Geophysical Services Center in Dallas, Texas.

Other transfers, locally, included QUIN HAYES from the Regional Staff to the California Exploration Area as Area Geophysicist. A.R. (MOE) MOGCK will move from the California Area to the Northwest Area (Alaska) in the same capacity, and A.M. FIELD from the Northwest Area to Regional Staff Geophysicist.

L.C. STEVENS, Vice President of Mobil's West Coast Regional Exploration and Producing activities since 1960, is being transferred to Houston, Texas, as Vice President of Mobil's Gulf Coast Region. His replacement will be G.R. LUCI-SMITH, former General Manager of Mobil's operation in Libya.

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Fullerton, California 92631

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203 Huntington  
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Louis C. Bortz  
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Arvada, Colorado 80002

D. Lande  
2841 Tigertail Drive  
Los Alamitos, California 90720

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Standard Oil Co. of California  
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2133 Grandeur Drive  
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M. E. Weidler  
27004 Grayslake Road  
Palos Verdes Peninsula, California  
90274

Lowell Redwine  
Union Research Center  
P.O. Box 76  
Brea, California 92621

NEW MEMBERS

Sigmund Snelson  
Shell Oil Company  
1008 West 6th Street  
Los Angeles, California 90017

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P.O. Box 811  
Ventura, California 93002

Paul H. Dudley, Jr.  
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Robert R. Dunfield  
11321 Yolanda Avenue  
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P.O. Box 7600  
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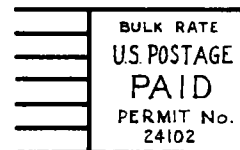
**PACIFIC PETROLEUM GEOLOGIST**  
**PACIFIC SECTION. A.A.P.G.**  
**P.O. BOX 17486. FOY STATION**  
**LOS ANGELES, CALIF. 90017**

Volume 21

Number 2

Return Requested

RICHARD L. HESTER DA  
PAULEY PETROLEUM INC.  
10000 SANTA MONICA BLVD.  
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# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

April, + 1967

Number 4

### ASSOCIATION ACTIVITIES

#### THE UNIVERSITY OF SOUTHERN CALIFORNIA

##### DEPARTMENT OF GEOLOGY

Presents a Series of Six Special Lectures  
by Professor Raimondo Selli, University of  
Bologna, Bologna, Italy.

Friday, April 14, 12 Noon  
Geology of Southern Italy (Stratigraphy and  
Tectonics).

Tuesday, April 18, 12 Noon  
Geology of the Southeastern Alps (particularly  
the Paleozoic and Mesozoic of the Carnic and  
Julian Alps).

Thursday, April 20, 7 PM  
Some Problems About Tectonics of Orogenic  
Belts.

Friday, April 21, 12 Noon  
Italian Marine Quaternary and the Plio-  
Pleistocene Boundary.

Thursday, April 27, 7 PM  
The Great Vaiont (Longarone, Eastern Alps)  
Landslide of 1963.

Friday, April 28, 12 Noon  
Stratigraphic Problems of the Neogene of  
Italy and Southern Europe.

All lectures will be held in Room 102, Stauffer  
Lecture Hall, East of the corner of 37th  
Street and Hoover Street, adjacent to  
Geology "A".

#### EVENING FORUM

Because of the A. A. P. G. Convention,  
there will be no Evening Geological  
Forum in April. Dr. W. H. Easton  
of U.S.C. will speak before the May 15  
Forum on "Hurricane Effects on  
Bahamian Reefs." This will be  
illustrated by underwater colored movies.

\*\*\*\*\*  
FLASH !!

Latest word is that it's going to be a buyers  
market at the April AAPG Convention in L. A.  
The companies are back in a hiring cycle and  
looking for talent. As of mid-March 14 organ-  
izations including the USGS and one state survey  
have indicated their intentions to conduct  
interviews during the Convention. So now's  
the time to get that key position. Contact  
Frank B. Carter of the Employment Interviews  
Committee (phone: 241-9922) who will be happy to  
set up interviews for you.

\*\*\*\*\*

#### LEVORSEN MEMORIAL FUND

The A. I. Levorsen Fund, established by  
the American Association of Petroleum  
Geologists, will provide a Best Paper  
Award for each annual regional convention.  
The Pacific Section has voted to participate,  
with a donation which will approximate 10¢  
per member. Individuals wishing to further  
this memorial to Lev may send their  
contributions thru the Pacific Section  
Treasurer, T. L. Wright, P. O. Box 606,  
La Habra, California 90633.

#### SAN JOAQUIN SECTION

The American Legion Hall at Bakersfield  
was the site of a very successful Ladies'  
Night for the San Joaquin Geological Society.  
Champagne and beer proved to be adequate  
liquid to enhance the taste of the steak dinner  
which, in turn, set the stage for a journey  
through Pakistan and India presented by  
slides and commented by Mr. & Mrs. Fred  
Porter.

We were again honored by the attendance  
of President Knapp and Treasurer Wright  
of the Pacific Section AAPG at the meeting.  
They are still trying to find ideas to  
increase attendance at some of their area  
meetings.

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PACIFIC PETROLEUM GEOLOGIST

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Calif. 90009  
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years' issues of the PPG should be addressed to:  
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Bakersfield, Calif.

EDITOR:	John N. Terpening
Assistant Editors:	
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Minutes of the Executive Committee Meeting  
March 14, 1967

Present were R.R. Knapp, J.F. Curran,  
T.L. Wright, J.M. Saunders, and R.R.  
Morrison. Guests present were Harry Nagle,  
Ken Stahle and Sam Brown.

The meeting was called to order by president  
Knapp who announced that the next meeting  
will be held at 3:00 p.m. on April 10 at  
President Knapp's room at the Biltmore.  
The newly elected officers of the Pacific  
Section will be invited to this meeting and will  
be introduced to the convention.

Herschel Driver has resigned from the  
Northern California Selective Service Advisory  
Committee on Scientific, Engineering, and  
Specialized Personnel. J.H. Kinser has  
agreed to serve in his place as the geological  
member.

John Curran, membership chairman, was  
asked to make and send lists of National  
AAPG non-members to district representatives  
and to chief geologists of each company to try  
and prod these people into membership. It  
was suggested that members of SEPM and  
SEG be automatically eligible for membership  
in the Pacific Section AAPG. This will require  
a constitutional amendment and will be  
suggested to the new officers. A system to  
automatically sort membership cards by  
categories will be investigated.

The price for the San Andreas cross-section  
and index sheet to be sold at the convention  
was set at \$2.00 and thereafter \$3.00 by mail.  
Previous full sets are 45% sold.

It was suggested that the field trip handouts  
be sold separately for \$1.00 each or \$5.00  
per set to those not attending. This will be  
discussed with J. Forman (field trip chairman).

The possibility of forming a permanent Pacific  
Section library is being investigated. An effort  
will be made to locate and store every possible  
publication, original maps, and plates. Sam  
Brown has made a start at this but has limited  
room for storage.

DEADLINE FOR NEXT ISSUE

April 15

How 'bout some exciting news from the Convention.

AAPG CONVENTION - L. A.

April 10-13

AAPG HONORARY MEMBER ---

Martin Van Couvering

Martin Van Couvering became a member of the Association in 1924. He served as president of the Pacific Section in 1947 and was founder of the Pacific Petroleum Geologist and the Geological Forum during his term as president. He is a fellow of the Geological Society of America and a member or honorary member of nine state and provincial geological societies. He is a charter member of the American Institute of Professional Geologists and served as its first president.

Never satisfied with any explanation without the fullest possible understanding of the underlying facts, he has never ceased to be an inquiring student. Twenty five years after his undergraduate training, he obtained the M. A. degree in Geology from the University of California at Los Angeles. He has served as special lecturer at universities, as adviser, and consultant to many government agencies as well as to private clients, and has written numerous articles on geological subjects. His constant search for geological knowledge and for broadened acquaintanceship with other geologists appears to have caused him to attain the distinction of having attended more organized geological field trips than any other individual.

SEPM FRANCIS P. SHEPARD AWARD ---

David G. Moore

SEPM has established the Francis P. Shepard Award for Excellence in Marine Geology. David G. Moore is the first recipient of the award. In this presentation, the committee is recognizing not only the quantity and quality of scientific contribution, but the high personal esteem and respect in which the recipient is held by all his colleagues.

From 1951 until 1955 Moore was employed by the Scripps Institution of Oceanography and devoted full time to participation in the American Petroleum Institute Project 51.

Beginning in 1949, Dave Moore was probably one of the first geologists to utilize SCUBA in the study of the shallow sea floor.

Dave is best known for his ideas and contributions on the origin and the structure of the continental shelf and slope. This work found culmination in 1966 when he was awarded his Ph. D. degree from the University of Groningen in the Netherlands.

SEPM HONORARY MEMBER---

Francis P. Shepard

Francis P. Shepard, Emeritus Professor of marine geology at the University of California at San Diego, has been aptly called the "Father of Marine Geology."

His work at the Scripps Institution of Oceanography began in 1927 and he joined the University of California's Division of War Research in 1942, and then continued at Scripps until his retirement in 1964. Subsequently he has been recalled to active duty at Scripps with special appointments.

Minutes of the Executive Committee Meeting  
Pacific Section A. A. P. G.  
February 14, 1967

President Knapp called the meeting to order at 1:35 P.M. at the Sky House conference room in Bakersfield, California. Attending were: R.R. Knapp, J.F. Curran, W.F. Edmondson, T.L. Wright, R.R. Morrison and J.M. Saunders. Invited guest was D.C. Callaway.

It was voted that Gordon Oakeshott be reappointed to serve on the Distinguished Lecturer Committee representing the Pacific Section.

David Callaway reported on the progress of the cross section committee. Two Sacramento Valley cross sections should be ready for sale at the convention in Los Angeles in April. It was voted to sell these for \$1.00 each at the convention and for \$2.00 after the convention. The San Joaquin Valley section is about one third complete and should be ready sometime this year but probably after the April convention.

The composite San Andreas index section will also be ready for sale in April. It was decided to set the price on this section at next month's meeting when a copy should be available to be seen by the executive committee.

President Knapp stated that Ed Gribi reports plans are going ahead for a fall field trip in the Salinas Valley area; this trip will be a northerly continuation of the 1963 Salinas field trip. It was decided that the editor for the field trip guide book should come from the Northern California (Bay Area) group. Dave Durham and Dick Pierce were suggested as possible editors. It was felt that the field trip should be held in late September or early October.

## PERSONAL ITEMS

JIM RASKE, formerly with Dow Chemical is now employed at Union in Bakersfield as a geologist.

LEON ERNEST, new geologist in exploitation for Tidewater, has travelled West from Mississippi.

D. G. (DOUG) HOWELL, formerly at Midland has been transferred to Bakersfield as a geophysicist for Standard, Northern Division.

R. H. (DICK) ANGERER, Geophysicist with Standard is transferring from Bakersfield to Anchorage.

DON LASWELL, has been transferred from Anchorage back to Bakersfield as a geophysicist for Standard.

## CHANGE OF ADDRESS

William D. Poynor  
Atlantic Richfield Company  
P. O. Box 2819  
Dallas, Texas 75221

L. F. Ivanhoe  
Piazza Adriana 11  
Rome, Italy

Paul J. Bostick, Jr.  
Cities Service Oil Co.  
3810 Wilshire Blvd.  
Los Angeles, Calif. 90005

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7242 Gobernador Canyon Road  
Carpinteria, Calif. 93013

E. W. Hudson  
P. O. Box 2168  
Bakersfield, Calif. 93303

Neil B. Crow  
815 Crane Avenue  
Livermore, Calif. 94550

## NEW MEMBERS

Leslie B. Magoon  
900 Sea Lane #78  
Corona del Mar, Calif. 92625

Robert K. Steer  
Humble Oil & Refining Co.  
1800 Avenue of the Stars  
Los Angeles, Calif. 90067

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555 South Flower Street  
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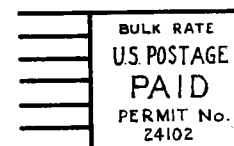
Apologies to LOWELL REDWINE who has been loyally paying dues to AAPG for 29 years or so - he was erroneously listed under "new members" rather than "change of address". No, Lowell, you can't have your dues back. Would you believe, 29 years.

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# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

May +

Number 5

### ASSOCIATION ACTIVITIES

#### AAPG-SEPM NATIONAL CONVENTION AN OUTSTANDING SUCCESS

Most petroleum geologists in Southern California are back to the business of finding oil after one of the most successful national conventions of the AAPG and SEPM held at the Biltmore Hotel. There were 2,649 registrations, plus a large number of students who dropped by briefly to see what the oil business was all about.

The committee work necessary to put on a national convention is prodigious. National officers of both AAPG and SEPM paid tribute to the many months of effort put in by members of the Pacific Section local committees. The PPG had hoped to recognize by name each of the workers but there were so many individuals involved that it would have taken an entire issue to recognize individual contributions. Pacific Section presidents Bob Knapp (AAPG), Mort Polugar (SEPM) and Doug Barman (SEG) all joined in expressing their thanks to the local committees.

Among the highlights were the first SCUBA field trip ever to be held as part of a national convention. Special thanks go to the Naval Electronics Laboratory, San Diego for making this trip a success. The national SEPM held a dinner meeting for the first time, at which a new classification of water laid clastic sediments was proposed. Over 600 people attended field trips, meaning that nearly 25 percent of the registrants got a chance to see some local geology.

Newly elected Los Angeles District representatives, serving from 1967 to 1969 are:

Eugene Borax, Bob Hacker, Jack Nair, Bob Orwig, and George Roth.

#### SEPM STUDENT AWARDS ANNOUNCED

Each year the SEPM awards a one-year subscription to the Journal of Sedimentary Petrology or the Journal of Paleontology to a number of outstanding undergraduate students. The winners this year include Roger M. Slatt (Alaska), Robert J. Griffis (Washington State), Judith S. Terry (Stanford), Donald S. McDougall (USC), James C. Moore (UC Santa Barbara), Donald A. Hartman (Oregon State), R. A. Rahmani (British Columbia), William K. Mensing (Whittier), Willis L. Savage (Puget Sound), Carole J. Hickman (Oregon), A. Moscoso (San Diego State), O. Frank Huffman (UC Berkeley), Ronald R. Schmidt (UCLA), Eugene F. Pearson, Edward Johnson, and James Ridenour.

#### EMPLOYMENT INTERVIEWS AAPG CONVENTION

A total of 66 applicants were interviewed in the course of the four days, April 10-13 inclusive. In addition to these, 7 geologists who were unable to attend the Convention submitted resumes of their experience for the inspection of the interviewing companies. Interviews were conducted by 17 organizations including 15 oil companies, one state geological survey and the U.S.G.S. Most of the applicants were interviewed by several organizations, resulting in a total of 195 interviews.

#### LOS ANGELES - A. A. P. G. NOON LUNCHEON

#### JUNE 1ST - RODGER YOUNG AUDITORIUM

Mr. Arthur F. Brunton, Executive Director of the American Institute of Professional Geologists, will speak on the topic "Is Geology a Profession?"

Several geologists in industry have suggested recently that USC clarify the so-called University College or evening program with which they are acquainted. For many years we have served the professions of geology and engineering by offering a number of courses in early evening (6 P. M. or later). Graduate courses have been offered on specialized subjects such as Volcanology, Engineering Geology, and Ground Water, which extended training normally received in graduate school. A few years ago, the program was expanded by adding Lunar Geology, Planology, and Meteoritics in response to an increase local and national interest in "astrogeology".

Concurrently, some graduate courses were shifted into the late afternoon hours (4 P. M.) to meet the needs of our own students as well as those of qualified professional geologists in the area who are able to obtain release from professional duties in order to enroll in advanced courses in Marine Geology, Oceanography, Sedimentation, Petrography, Techniques, Petrography, Sedimentary Petrography, Desert Geology, and Intrusive or Extrusive Igneous Rocks. Graduate courses in Geotectonics and Advanced Structural Geology customarily are scheduled at night. Prerequisites for these courses and others offered in the evening program must, of course, be met. Also, permission of the instructor is required before enrollment is approved in some courses.

Two new developments are being accommodated. First, the nation-wide up-grading program suggested by AAPG has led us to offer special seminars on specific topics under the tutelage of local specialists in the fields. Thus, Floyd Sabins (of Chevron Research) is currently presenting a course on Remote Sensing. This program will be continued so that Larry Frakes (of UCLA, we are pleased to report) will present a seminar on Continental Drift next fall. Second, we are in the process of hiring several new faculty members under a major NSF Science Development Grant. At present, for instance, we are launching a graduate program in quantitative methods in stratigraphy and paleontology under Dr. Robert Osborne. In this way, a reservoir of qualified professional persons may be joined to our group of graduate students, to their mutual advantage.

Professional geologists in industry can enroll at USC as special graduate students without intending to apply for candidacy for a degree. If candidacy subsequently is contemplated, however, the application and departmental action on it must be completed before three courses are finished. A Master's degree requires a thesis and minimum of six courses, of which probably one to three courses may meet in afternoons.

Several persons have attained graduate degrees largely through night courses. Although most courses meet only one night a week for two or three hours, the afternoon classes may meet two or three times a week and commonly

## COAST GEOLOGIC SOCIETY

William H. Easton, Chairman  
Dept. of Geology, USC

Thus, in order to obtain a graduate degree, the applicant must arrange for some released time from his job. Hundreds of graduate students in engineering obtain released time from their employers, and some or all of the tuition costs have been paid by their employers.

Instructors at USC have great freedom in scheduling their courses, so a group might prevail on an instructor to adjust his schedule to their needs. Moreover, if a special course were requested by a group of geologists in industry, we would be able to arrange for the instruction through the Dean of University College. Inquiries regarding any phase of the night school program would be welcome at the office of the Department of Geology (Tel: 746-2717).

The February dinner meeting of the Coast Geologic Society was held in the Jet Room at Ventura on the 14th. Our guest speaker was Dr. Perry Ehlig, Professor of Geology, California State College at Los Angeles. Dr. Ehlig's talk was titled, "The Distribution of Terrain within Eastern Ventura Basin". The major rock types discussed by Dr. Ehlig were the Mendocino gneiss, the oldest rocks in the area, the Anorthosite-gabbro complex, the Lowe granodiorite, and various meta sediments including the Pelona schist. He pointed out the possibilities of movement along the San Gabriel fault based on the distribution of these rock types.

Our March dinner meeting was highlighted by an interesting talk on the geology of the "Pismo and Huala synclines of Western San Luis Obispo County".

Dr. Robert C. Spivey, Senior Staff Geologist for Shell Oil Company, Los Angeles, is retiring at the end of April after 27 years of service. Bob has bought a camper and trailer and plans to travel extensively for a number of months before settling down. He has also bought a lot on a peninsula of Beaver Lake in the Ozarks of Arkansas; in the future he may build a house on this lot and settle down. Beaver Lake is close to the library facilities of the University of Arkansas at Fayetteville and also close to the thick Pennsylvanian section of the Ouachitas. One of Bob's early research interests. He is considering a continuation of studies of the Pennsylvanian stratigraphy of the Midcontinent.

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Foy Station, Los Angeles, California 90017  
Material for publication and requests for missed  
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EDITOR:  
John N. Terpening

Assistant Editors:  
Deane Oberste-Lehn  
Bob Yeats  
Lucy Birdsall  
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CORRESPONDENTS:  
Selected Bibliography  
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Alaska  
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DEADLINE FOR NEXT ISSUE  
--- May 20 ---

"The initiation of the ethics procedure requires testimony by an active member, precluding the consideration of serious charges on the basis of rumor as a protection 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."

"Members will be interested to know that, contrary to reports in some quarters, the association stands on a number of occasions taken a firm stand in unethical incidents. Procedures have been instigated at the request of members in at least 6 recent occasions and in each case, the accused tendered his resignation before the hearings were completed, thus terminating the procedures, as provided by the Bylaws. In other incidents, reprimand and/or probation have been imposed.

"The following excerpt from an AAPG headquarters memorandum, dated March 7, 1967 should prove to be of interest in regard to certification and professionalism.

1. Qualifications for membership would be liberalized to include work in a scientific field applicable to petroleum geology.
  2. Past members, juniors, or associates could be reinstated by the payment of one year's dues in arrears plus other indebtedness to the association when he ceased to be a member, junior or associate.
  3. To allow for representation of small, remote groups, one district representative could be authorized for units of up to 25 members. (This is particularly important now that the AAPG is a growing national organization with small groups in outlying areas.)
  4. The Committee on Statistics for Exploratory Drilling would be charged with annual development papers in the Bulletin in addition to statistics. The development papers are currently the responsibility of the Committee for Publication.
- The following excerpt from an AAPG headquarters memorandum, dated March 7, 1967 should prove to be of interest in regard to certification and professionalism.

CONSTITUTIONAL AMENDMENTS PROPOSED  
AT ANNUAL AAPG BUSINESS COMMITTEE  
MEETING

ABSTRACTS INVITED FOR THE 1968  
AAPG-SEPM-SEG PACIFIC SECTION  
CONVENTION

The Pacific Section AAPG-SEPM-SEG convention for next year will be held in Bakersfield on March 28-29, 1968. The theme chosen for this convention is "Exploration Frontiers." If you can present a paper pertinent to this theme or on a subject that would be of interest to the membership please send a brief abstract or outline of the material you would plan to present in this paper to the pertinent program chairman listed below.

AAPG Ernie Rennie  
1716 Oak St. Room #3  
Bakersfield, Calif. 93301

SEPM Mort Polugar  
Standard Oil Co. of California  
P. O. Box 5278  
Oildale, Calif. 93308

SEG Jack Kruppenbach  
GSI  
3118 18th Street  
Bakersfield, Calif. 93301

Department of Geology and Geophysics  
University of California, Berkeley

DEPARTMENTAL SEMINARS FOR SPRING  
QUARTER, 1967

May 17 Dougald Carmichael, Graduate Student,  
Department of Geology and Geophysics,  
University of California, Berkeley

TOPIC "Structure and Metamorphism of  
Precambrian Rocks in Southeastern  
Ontario"

TIME, PLACE 4:00 p. m. in room 141 Earth Sciences  
Building, Berkeley.

May 24 William Chinn, Graduate Student,  
Department of Geology and Geophysics,  
University of California, Berkeley

TOPIC "Structural and Mineralogical Evolution  
of the Homestake Orebody"

May 31 Ronald Merrill, Graduate Student,  
Department of Geology and Geophysics  
University of California, Berkeley

TOPIC "Magnetic Reversals in the Bucks Pluton,  
Sierra Nevada"

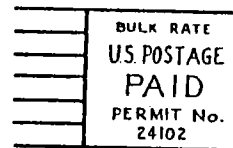
PACIFIC PETROLEUM GEOLOGIST  
PACIFIC SECTION, A.A.P.G.  
P.O. BOX 17486, FOY STATION  
LOS ANGELES, CALIF. 90017

Volume 21

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LOS ANGELES, CALIF. 90067



# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

June, + 1967

Number 6

### ASSOCIATION ACTIVITIES

#### CALIFORNIA REGISTRATION

The American Institute of Professional Geologists has an obligation to keep both the AAPG and the San Joaquin Geological Society informed on matters relating to regulation of the geological profession. The story here fulfills that obligation at the moment to AAPG and, it is believed, to a great majority of SJGS members.

Senator Albert S. Rodda of Sacramento introduced Senate Bill 1493 on April 11, to register the State's geologists. This bill was sponsored by the City of Los Angeles, which recognized that Statewide uniformity of geologic standards would resolve the problems which have grown out of local certification. The City earlier had considered the route of incorporation, or chartering, but was persuaded from that course by members of its engineering and geologic staff.

The first hearing by the Senate Business and Professions Committee is scheduled for May 22.

Senate Bill 1493 in its initial form is identical to the model registration law which was submitted to the City at the City's request, jointly by AIPG and AEG after the City Council voted to sponsor registration. Some key provisions of the bill are found in these paragraphs.

7823. This provides for mandatory certification of engineering geologists by the Board of Geologists, and of other speciality certification at the option of its practitioners, "...including but not limited to petroleum, mining, and ground water...."

7872. The bill is a practice as well as a title act. That is, "Every person is guilty of a misdemeanor ... (a) Who, unless he is exempt from registration under this chapter, practices or offers to practice geology for others in this state according to the provisions of this chapter without legal authorization." Those who are not required to register are (1) Federal employees, (2) teachers of geology while engaged in teaching (by inference), (3) more than one member of a "...partnership or corporation whose primary activity consists of geological services," and (4) the geological employees of "...an individual,

continued--

firm, company, association or corporation whose principal business is other than the practice of geology," so long as their work is "...geology incidental to the conduct of the business."

This is a compromise bill modified by the needs and wants of many individuals and groups. It can't please everyone but, hopefully, will be acceptable to most California geologists. We feel that it is the best available solution to the problem of providing statewide standards for engineering geologists without unnecessarily restricting the practice of geology in other fields.

If anyone feels strongly that the bill needs amendment from its present form, please discuss the matter with one or more members of the legislative committee, listed below\*, before taking individual action.

The bill is a long one--twelve pages--and only the most critical paragraphs are cited above. If you do not have a copy and want one, I suggest that you either write your State Senator or contact the local AIPG District Representative and ask for one.

Several bills have also been introduced in this session which threaten the professional freedom of disciplines already registered. It is evident that these bills would also impinge on the freedom of the Board of Geologists, should SB 1493 be enacted into law. AIPG is monitoring these bills as well, and will express its concern over their implications.

Robert H. Paschall  
President, California Section  
AIPG

#### \*Legislative Committee:

Los Angeles Area:	Art Spaulding, Hank Neel, Rod Colvin
Bakersfield:	Bob Ortalda, Wes Bruer
Sacramento:	Roland Bain
San Francisco:	Elmo Adams

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Gordon B. Oakeshott	Northern California Delegate
James M. Saunders	Coastal Delegate

ASSOCIATED SOCIETY DELEGATES

Glen C. Ware, Jr.	Sacramento
Edward G. Dobrick, Jr.	Northwest
Dean L. Morgridge	Alaska

PACIFIC PETROLEUM GEOLOGIST

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P.O. Box 90905, Airport Station, Los Angeles,  
Calif. 90009  
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Pacific Section Publications, 3132 18th Street,  
Bakersfield, Calif.

EDITOR:	John N. Terpening
Assistant Editors:	Deane Oberste-Lehn
	Bob Yeats
Selected Bibliography	Lucy Birdsall
Cartoonist	Jack Nisbet

CORRESPONDENTS:

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Coast	Bruce E. Macomber
Los Angeles	Mike Duggan
Northwest	Jim Salveson
Sacramento	Lowell Garrison
San Francisco	Gordon Oakeshott
San Joaquin	Chester H. Rudel
Membership Secretary	Pat Metcalf

DEADLINE NEXT ISSUE  
---June 20---

NEWS FROM UCLA DEPT. OF GEOLOGY

The Department has undergone several staff changes in the past year. New Additions include:

Professor Ronald J. Gibbs (UC San Diego),  
Professor Lincoln S. Hollister (Cal Tech), and  
Professor Wayne A. Dollase (MIT).

As most are now aware, the department continues its role as one of the source beds for staffing of other geology departments at other campuses of the University. Beginning in September, 1967, Dan Axelrod will join the staff at UC Davis and John Crowell will tend bar at UC Santa Barbara.

Professor Gerhard Oertel is currently on Sabbatical Leave at the University of Edinburgh, Scotland, and will return this September. Professor Bill Rubey, who retired last June was recalled to service in the department for 1966-67 and will continue in the same capacity for the 1967-68 academic year.

The department, and the whole University for that matter, has been for the past several months going through the double-trauma of the transfer from the semester system to the quarter system and the post-January 1 period.

Enrollments continue to rise slowly in the undergraduate area (currently 40) and to decline slightly in the graduate student area (presently 60). Graduate student enrollment prospects for the coming year are somewhat more encouraging.

Professor Helen Loeblich is engaged in the preparation of a departmental newsletter which will be far more informative than these brief comments. Hopefully, it will be an annual affair and will serve as a mechanism to receive comments from alumni for inclusion in subsequent editions.

\* \* \*

GEOLOGIST HONORED

O. L. BANDY, Professor of Geology at the University of Southern California, has been awarded a \$1,000 prize by the USC Associates for his research in micropaleontology and paleoecology. His award recognizes original research on the application of paleoecology to exploration for oil fields in the Tertiary basins of California. Dr. Bandy has been a Distinguished Lecturer of the A.A.P.G. and an officer or committeeman in several professional associations.

SAN ANDREAS FAULT COMPOSITE CROSS SECTION:  
(\$3.00) 58" x 42".

This is a composite of all the previously published San Andreas Fault cross sections and includes two longitudinal sections along the fault and 9 sections across the fault. Also included are some excellent aerial photographs. All on a single section suitable for wall mounting.

SACRAMENTO VALLEY - SUISUN BAY to LODI:  
(\$2.00) 16" x 44".

This east-west section utilizes new deep wells in these areas and shows the stratigraphic changes encountered in crossing the Midland Fault and the Kirby Hills Fault Zone.

SACRAMENTO VALLEY - WINTERS to MODESTO:  
(\$2.00) 14" x 57".

This section runs west of the Midland Fault and relates the stratigraphy of the Southern Sacramento Valley to that of the Northern San Joaquin Valley.

These can be ordered from: Pacific Section, AAPG  
3132 18th Street  
Bakersfield, Calif.  
93301

#### 1963 SALINAS VALLEY GUIDEBOOK

Richard Anderson, Treasurer of the Pacific Coast Section, S.E.P.M. advises that fewer than twenty (20) copies of the 1963 Salinas Valley Guidebook are available out of the total printing of 525 copies. These will not be reprinted, so if anyone is interested in obtaining a copy for their library, they should act now."

#### PERSONALS

Tidewater is opening a new uranium exploration office in Salt Lake City, Utah, according to Siegfried Muessig, Mineral Exploration Manager. Paul A. Riddell will be district uranium exploration manager. Tidewater's mineral exploration staff is based in Los Angeles and includes Robert P. Blanc, commodities geologist; J. Morrow Elias, staff geologist; and E. C. Spalding, project geologist.

M. J. CASTRO has moved his consulting offices to Suite 201, 1508 Wilshire Boulevard, Los Angeles, 90017; telephone 483-2902.

HARRY HIXSEN, Mobil, has moved from Santa Fe Springs exploration to the Anchorage production geology group.

JOHN VITCENDO, has transferred to Mobil's Alaska exploration group in Los Angeles from Casper, Wyoming.

DAVE BEAU has been transferred from Mobil's Dallas office to the Alaska exploration group in Los Angeles.

JOHN HELLER, Mobil landman, has been transferred from Anchorage to Los Angeles.

BOB TANION, formerly Mobil Sr. Geologist in Anchorage, has been transferred to Los Angeles in the same capacity.

MR. JACK DURRIE has been elected district representative to the National AAPG from the Santa Barbara District. Congratulations, Jack.

There has been quite a surplus of houses for sale in the Ventura area since the reported transfer of Standard Oil Exploration was announced. Standard is consolidating its Ventura District into the La Habra offices in Los Angeles as of August 1, 1967. We hate to see the S.O.B.'s go (Standard Oil Bunch) but, of course, we know they would much rather live in smoggy Los Angeles than here in cool Ventura.

We understand that Texaco has lost RALPH CAHILL. Ralph is working now for Home-Stake Petroleum in Santa Maria. Good luck, Ralph.

We understand that Continental has a new man, MEL OXEN, in Ventura from Durango, Colorado. Welcome aboard, Mel.

HAROLD SUGDEN of Ventura Tidewater called Shell Oil last week. No, he wasn't looking for a job - he was just ribbing BRUCE BLACK of Shell who caught an 8 lb. sheepshead on the AAPG underwater scuba field trip to the Los Coronados Islands and La Jolla and Scripps Canyons. Seems Bruce threw the beautiful fish back before Harold told him they did have a Mexican fishing license. That's all right, Harold - at least he did catch one.

#### BIBLIOGRAPHY OF RECENT PUBLICATIONS

GEOLOGICAL SOCIETY OF AMERICA BULLETIN,  
vol. 78, no. 3, March 1967.

Fused tuff and peperites in south-central Washington, by Hans-Ulrich Schmincke.

Formation of red beds in modern and ancient desert, by Theodore R. Walker.

A new Ordovician formation in Nevada dated by conodonts, by Chester R. Longwell and Michael C. Mound.

San Andreas fault north of Point Arena, California, by Joseph R. Curray and Robert D. Nason.

Interpreting local geology from radar imagery, by Hubert O. Rydstrom.

GEOLOGICAL SOCIETY OF AMERICA BULLETIN,  
vol. 78, no. 2, February 1967.

Possible large right-lateral displacement along  
fault and shear zones in the Death Valley--Las  
Vegas area, California and Nevada, by John  
H. Stewart.

Belt of sigmoidal bending and right-lateral  
faulting in the western Great Basin, by John  
P. Albers.

Geochemical and structural studies in batho-  
lithic rocks of Southern California: Part II,  
Sampling of the Rattlesnake Mountain pluton  
for chemical composition, variability, and  
trend analysis, by A. K. Baird, D. B. Mc  
Intyre, and E. E. Welday.

Geological interpretation of seismic profiles  
in Prince William Sound, Alaska, by Roland  
Von Huene, George G. Shor, Jr., and Erk  
Reimnitz.

Composition of analcime from sedimentary and  
burial metamorphic rocks, by D. S. Coombs  
and John T. Whetten.

Late Jurassic age of the Santiago Peak  
Volcanics, California, by Donald L. Fife,  
John A. Minch, Perry J. Crampton.

WORLD OIL, vol. 164, no. 2, February 1967.

Geologic studies can project stratigraphic trap  
trends, by Robert Klinger and Richard Ash.

PETROLEUM TODAY, vol. 8, no. 1, Winter 1967.

Oceanography: A world of promise, by Lee  
Edson.

**PACIFIC PETROLEUM GEOLOGIST**  
**PACIFIC SECTION. A.A.P.G.**  
**P.O. BOX 17486. FOY STATION**  
**LOS ANGELES, CALIF. 90017**

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## U. S. GEOLOGICAL SURVEY

Professional Paper 542-C: Effects of the earth-  
quake of March 27, 1964 at Valdez, Alaska,  
by H. W. Coulter (U.S.G.S.) and R. R.  
Migliaccio, (Alaska Department of Highways).  
\$1.25

Professional Paper 545-A: Effect of the earth-  
quake of March 27, 1964, on the Eklutna  
Hydroelectric Project, Anchorage, Alaska,  
by M. H. Logan, (U.S. Bureau of Reclamation)  
with a section on: Television examination of  
earthquake damage to underground communi-  
cation and electrical systems in Anchorage,  
by L. R. Burton. 35¢

Professional Paper 547: Cretaceous ammonites from  
the lower part of the Matanuska Formation,  
southern Alaska, by D. L. Jones, with a  
Stratigraphic summary, by Arthur Grantz.  
\$1.25

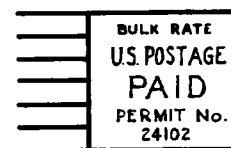
Professional Paper 559-A: Stratigraphy of the  
Cambrian and Ordovician rocks of east-  
central Alaska, by E. E. Brabb. 30¢

Bulletin 1222-H: Uranium deposits of the Moab,  
Monticello, White Canyon, and Monument  
Valley district, Utah and Arizona, by H. S.  
Johnson, Jr., and William Thordarson.  
\$1.00

Bulletin 1230-G: Mineral resources of the Devil  
Canyon--Bear Canyon primitive area,  
California, by D. F. Crowder. 55¢

Map I-477: Geologic map of the Ludlow quadrangle,  
San Bernardino County, Calif., by T. W.  
Dibblee, Jr. \$1.00

Map I-490: Geologic map of the Emerson Lake  
quadrangle, San Bernardino County, Calif.,  
by T. W. Dibblee, Jr. \$1.00



# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

July, + 1967

Number 7

### ASSOCIATION ACTIVITIES

#### NEWLY ELECTED OFFICERS FOR PACIFIC SECTION AAPG AND ASSOCIATED SOCIETIES

Executive Committee		PACIFIC SECTION AAPG		July 1967 thru June 1968	
Pres.	Ted L. Bear	Bear & Kistler	816 W. 5th St.	L. A.	90017
V.P.	Richard L. Hester	Pauley Pet.	10000 S.M. Blvd.	L. A.	90067
Sec.	Hal Fothergill	Union Oil Co.	P. O. Box 7600	L. A.	90054
Trea.	Robert S. Yeats	Shell Oil Co.	1008 W. 6th St.	L. A.	90054
PP	Robert R. Knapp	Standard Oil Co.	P. O. Box 606	La Habra	90623

COAST GEOLOGICAL SOCIETY		January thru December 1967	
Pres.	Harry E. Nagle	Standard Oil Co.	P. O. Box 3317 Ventura 93003
V. P.	Carl Stehle, Jr.	Vaca Oil Co.	P. O. Box 367 Oxnard 93030
Sec.	Andrew C. Jurasin	Continental Oil	P. O. Box 848 Ventura 93002
Trea.	John H. Durrie, Jr.	Tidewater Oil	P. O. Box 811 Ventura 93003

NORTHERN CALIFORNIA GEOLOGICAL SOCIETY		January 1967 thru December 1967	
Pres.	James W. Higgins	Standard Oil Co.	225 Bush St., Rm 608 San Fran. 94120
V.P.	Joseph K. Morford	Dow Chemical Co.	350 Sansome St San Francisco
S. T.	J. David Cerkel	Consultant	810 Gonzalez Dr. San Francisco 94132

SAN JOAQUIN GEOLOGICAL SOCIETY		May 1967 thru June 1968	
Pres.	James L. O'Neill	Consultant	3120 18th St. Bakersfield 93301
V.P.	Vincent F. Scurry	Texaco, Inc.	1921 19th St. Bakersfield 93301
Sec.	Ernie Espenschied	Standard Oil Co.	P. O. Box 5278 Oildale 93308
Trea.	Orrin J. Wangsness	Consultant	1660 Oak St. Bakersfield 93301
Deleg.	Jack Kappeler	Tidewater Oil	Route 1, Box 197-X Bakersfield 93308

General Chairman		1968 AAPG-SEPM-SEG Convention	
David Martin		Occidental	5000 Stockdale Hwy. Bakersfield 93309
Publication Sales			
Sam Brown		Buttes Gas & Oil	3132 18th St. Bakersfield 93301

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James M. Saunders	Coastal Delegate

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	Bob Yeats
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Los Angeles	Mike Duggan
Northwest	Jim Salvesson
Sacramento	Lowell Garrison
San Francisco	Gordon Oakeshott
San Joaquin	Chester H. Rudel
Membership Secretary	Pat Metcalf

CONFERENCE ON GEOLOGIC PROBLEMS OF THE  
SAN ANDREAS FAULT SYSTEM

A conference on current research on geologic and related geophysical and geodetic problems of the San Andreas fault system is being planned under the joint sponsorship of the School of Earth Sciences, Stanford University, and the National Center for Earthquake Research of the U.S. Geological Survey. The conference will consist of three days of meetings on Thursday through Saturday, September 14-16.

The sponsors intend the meetings to have the following characteristics: (1) all papers will be based on new data or original ideas that are not accessible in published form, (2) the proceedings will be informal enough to encourage presentation of progress reports, candid airing of tentative hypotheses, and full participation by students, and (3) the schedule will be flexible enough to allow for full discussion of information presented.

1. Stratigraphic, petrologic, geomorphic, and both onshore and offshore geophysical data related to fault displacements and their histories.
2. Geometry and evolution of fold and fault systems related to the San Andreas system.
3. Geophysical data related to subsurface conditions.
4. Geodetic data related to recent strain.
5. Attempts at tectonic synthesis to explain the setting history of the San Andreas system.

Conference coordinators are William R. Dickinson, Stanford University, and Arthur Grantz, U. S. Geological Survey.

PACIFIC SECTIONS OF A. A. P. G. & S. E. P. M.  
ANNOUNCE ANNUAL FIELD TRIP

October 20-21 is the date for the annual joint A. A. P. G. - S. E. P. M. field trip. Headquarters will be in hospitable King City, which provided such splendid facilities for the 1963 field trip. The ground to be examined adjoins the 1963 area on the north, extending parallel with the San Andreas fault from Bitterwater to Hollister in San Benito County. In addition to the usual geologic disciplines, the highly advanced techniques and instruments used in measuring active movement along the San Andreas fault will be presented. General Chairman for the trip is Jay G. Marks, Humble Oil & Refining Company, 1800 Avenue of the Stars, Los Angeles, California, 90067. Dick Pierce and Dave Durham will be editors of the guidebook on "The Geology of the Gabilan Uplift and Environs".

DEADLINE NEXT ISSUE

---August 20---

There will be no August issue

## COAST GEOLOGICAL SOCIETY

The annual, joint Coast Geological Society, S. P. E., A. P. I., and Ladies Night dinner meeting was held June 13 in the Womens Center in Ventura. The speaker was Dr. Ray Smith of the U. S. Naval Civil Engineers Lab in Port Hueneme (Y-NE-ME) whose talk "Monster in the Deep" concerned the recovery of the "H" bomb off the coast of Spain. Dr. Smith explained the role of geology and soils engineering in predicting where the bomb might be found.

Dr. Smith worked on extending land geology to sea, ocean bottom sediment strength, a new bathymetric chart and advised on cable strength limits at the winch as the bomb was being raised.

The success of finding the bomb was the result of a marriage of many technologies and sciences.

## PICO CANYON BARBEQUE

The Pico Canyon barbeque hosted some 230 geologists and their associates in the oil industry on June 2, 1967.

R. L. Triplett, Core Drill Contractor, made the salad for the twenty-fifth year.

Jack Wood and his BBQ staff from Ventura did a great job on the meal. The following contributors made the picnic possible:

Cook Testers  
 Newton Drilling Co.  
 Price Blueprint & Supply Co.  
 Geological Exploration, Inc.  
 Western Geophysical  
 Core Lab  
 Sun Marine Drilling Co.  
 Offshore Navigation, Inc.  
 Grover Collins  
 Reese Sales Co.  
 Baroid Well Logging Service  
 Borst & Giddens Oil Well Logging Service  
 ABC Directional Drilling Control  
 Schlumberger  
 Mercury Christensen  
 Exploration Logging, Inc.  
 General Oceanographics, Inc.  
 Lane Wells  
 Byron Jackson, Inc.  
 Global Marine, Inc.  
 Pacific Oil Well Logging, Inc.  
 Pan Geo Atlas Corp.  
 McCullough Tool Co.  
 Cal Pan Am Well Logging Co.

A special thanks to Bob Lindblom and John Jacobson, Standard Oil of Calif., for taking over the golf tourney at the last minute.

The chairman extends thanks to all who helped on the picnic and also the Field Trip, conducted by Ed Hall, Union Oil Co., and Luncheon arrangements by Jim Saunders, John Bullington, and Jack Durrie, too.

## NORTHWEST GEOLOGICAL SOCIETY

New officers were elected at the May 24th meeting of the Northwest Geological Society. Elected were: President - Richard Rector (Northern Pacific Railroad); Treasurer - Ray Johnson (Standard Oil Company of California). No further meetings will be held until fall when regular monthly meetings will be resumed.

Guest speaker at the May 24th meeting was Dr. R. C. Bostrom, Associate Professor of Geophysics at the University of Washington. Dr. Bostrom's topic was "The World Rift System in the Pacific Northwest."

A brief abstract is as follows:

Geophysical data suggest that the axis of the East Pacific Rise, a branch of the world rift system, traverses the Puget Sound area. Projects conducted jointly by the Department of Civil Engineering and the Department of Geology are intended to investigate this possibility and its implications in respect to crustal deformation and local earthquakes.

AIPG DIRECTOR DESCRIBES NEED FOR UNITY  
AMONG GEOLOGISTS

At the regular Pacific Section noon luncheon of June 1st, Arthur F. Brunton, Executive Director of the American Institute of Professional Geologists, pointed out that geologists have difficulty in achieving true professional status because they fail to unite their efforts. He also stated that he hoped all California geologists would register under the proposed geologists' registration law (SB1493) if it is passed. Recent attempts in this and other states to register geologists under licensing bills of other professions threaten to damage the individual geologist's earning ability. Unity under legislative acts that recognize geology as an entity and membership in the geologists' own professional organization, AIPG, are the best means of strengthening the profession and protecting our livelihoods.

PERSONALS

DAVE ENGSTROM (Standard in Seattle) has been transferred to Oildale, effective July 15.  
 REG HARRA

REG HARRIS, formerly with Standard in Seattle, has accepted a position with Humble in Libya.

WALT W. WORNARDT, JR. has joined the research staff of the Union Oil Co. in Brea. He is a specialist on diatoms and silicoflagellates and other siliceous microfossils. Walt was formerly employed by Esso Production Research Co., Houston, Texas.

CHANGE OF ADDRESS

W. M. Felts  
6520 Voss Village Mall  
Houston, Texas 77027

R. A. Gees, Assoc. Professor  
Dept. of Geology  
Dalhousie University  
Halifax, N.S.  
Canada

Edward G. Heath  
c/o Shell Dev. Co.  
13618 Pebblebrook  
Houston, Texas

Craig A. Lyon  
P.O. Box 7-839  
Anchorage, Alaska

F. T. Barr  
Oasis Oil Co. of Libya  
P.O. Box 395  
Tripoli, Libya

William A. Adent  
Room 600 - 115 Pine Avenue  
Long Beach, California 90802

Robert P. Blanc  
4201 Wilshire Blvd.  
Los Angeles, California 90005

Kenneth S. Fox  
9645 South Santa Fe Springs Road  
Santa Fe Springs, California

Hubert Y. Crouse  
23720 Lund  
Woodland Hills, California 91364

J. E. Holzman  
c/o SaniCo. Inc.  
10306 Roselle St.  
San Diego, California 92121

Mike Acosta  
12718 East La Cuarta Street  
Whittier, California

F. D. Didier, Jr.  
4276 DePaul Street  
Ventura, California 93003

J. Q. Anderson  
320 T. I. Building  
1705 Chester Avenue  
Bakersfield, California 93301

Otto Hackel  
c/o Buttes Gas & Oil Company  
2150 Franklin Street  
Oakland, California

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8752 Dunaway Drive  
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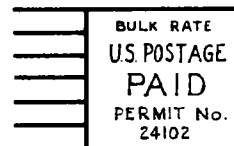
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Volume 21

Number 7

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# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

August, September 1967

Number 8, 9

### ASSOCIATION ACTIVITIES

#### PACIFIC SECTION BAR-B-QUE

The executive committee of the Pacific Section AAPG has decided to attempt to improve the attendance at local meetings by staging a bar-b-que and professional talk such as the San Joaquin Geological Society has been enjoying for the past year or two. Tentative plans are to have the first meeting of this type the third Tuesday evening in October.

The present location selected for the meeting is at the Standard Oil Company of California Recreation Building at the Northam Station located in La Mirada. This tentative site has been selected because of its more or less center of population for the present membership of geologists. Easy access can be made to the site via the Santa Ana Freeway. The simplest route is as follows: Exit the Santa Ana Freeway at Valley View Turnoff, proceed north on Valley View to Alondra Boulevard (one long block), east on Alondra for three-quarters of a mile, and park. Large signs will be installed so that you cannot miss the entrance. Additional instructions will be incorporated on the announcement cards which will be sent to all members at a later date.

In the event that this facility does not prove adequate the executive committee is still looking for an American Legion or V.F.W. hall such as has been used successfully in Bakersfield.

A menu very similar to that enjoyed by the San Joaquin Society has been planned. It will include hors-d'oeuvres, steak, salad, garlic bread, and free beer. The price is as yet unestablished but will be indicated on the announcement card.

It is believed that this will allow most of the members in the eastern and southern portions of the basin to attend a meeting without excess driving. The evening meeting will be in lieu of both the Evening Forum and the Noon Luncheon at the Roger Young Auditorium which have been poorly attended. We hope to make this new effort a successful one, so spread the news and turn out for a unique evening.

Rod Colvin, Mobil, Santa Fe Springs, is Chairman of the committee that is working on this new program. Any inquiries and/or suggestions for speakers should be directed to him. Phone: (213) 723-8631.

#### AAPG-SEPM PACIFIC SECTION FALL FIELD TRIP

The Gabilan Range and adjacent San Andreas Fault, plus the northern part of the Salinas Valley are the features to be traversed by the joint AAPG-SEPM Pacific Sections Field Trip next month.

Registration and technical sessions will be in King City Friday afternoon, October 20. The route will be traversed by bus on Saturday, October 21. Pre-registration is requested, so mail your checks for \$20.00 to Owen W. Fauntleroy, Jr., Finance Chairman, 8321 Beverly Boulevard, Los Angeles, 90048 (area code (213) 653-1751).

Information about the trip may be obtained from Jay G. Marks, Los Angeles (area code (213) 879-2700); Edward A. Gribi, King City (area code (408) 385-3239); Thomas H. Rogers, San Francisco (area code (415) 421-8800); and from Morton Polugar, Bakersfield (area code (805) 399-1741).

#### A.A.P.G. HEADQUARTERS NEWS

Newly installed AAPG President J. Ben Carsey, Houston, painted a bright future for petroleum geology recently as he met with newsmen at the Tulsa Petroleum Club for breakfast and a press conference.

Mr. Carsey told reporters that AAPG would increase the atmosphere of better cooperation between geologists and geophysicists, as well as other members of exploration teams. He said AAPG will continue its effort to attract more college students to geology careers and to work in the petroleum industry.

He emphasized that development of better domestic reserves will require better education in geology and geophysics, and better cooperation between all disciplines. He praised the increased use of electronic computers in exploration work, saying more explorationists' time and knowledge will be required for data interpretation. He stressed AAPG's acceleration of continuing education programs for its members and lauded AAPG member response to the Association's programs designed to help keep petroleum geologists up-to-date.

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inquiries should be addressed to: Membership  
Secretary, Pacific Section AAPG, P.O. Box 17486,  
Foy Station, Los Angeles, California 90017  
Material for publication and requests for missed  
copies should be addressed to: Dan E. Duggan,  
Humble Oil and Refining Co., 1800 Avenue of the  
Stars, Los Angeles, Calif. 90067  
Orders for Pacific Section publications and prior  
years' issues of the PPG should be addressed to:  
Pacific Section Publications, 3132 18th Street,  
Bakersfield, Calif.

EDITOR:	Dan E. Duggan
Assistant Editors:	Bill T. Bradford Frederik E. Dekker

Selected Bibliography	Lucy Birdsall
Cartoonist	

CORRESPONDENTS:

Alaska	Ernie Lian
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NEW COMMITTEE

Should we establish a Los Angeles Basin Geological Society? Tom Baldwin, Humble, and Doug Traxler, Signal, have agreed to make a study of this subject for the Executive Committee. Both of these men have been leaders in California for the geologists' cause. We are indeed fortunate to have their experience and judgement on this committee.

DEADLINE NEXT ISSUE  
--September 20--

A SECOND DEFENSE OF RATIONAL STRATIGRAPHIC NOMENCLATURE

(A Critique of Sacramento Valley Correlation Sections 15 and 16)

By Harold H. Sullwold, Jr.

Wm. F. Edmondson and his committee (Almgren, Callaway, Collins, Morrison, Nahama, and Reber) have done a fine job of unravelling and presenting the physical correlations of an area of considerable economic importance, stratigraphic complications, and rapidly accumulating evidence. Their efforts are greatly appreciated and should be rewarded by widespread purchase and use of these very helpful sections.

The authors have obviously intended to clarify the stratigraphic nomenclature, but unfortunately have not followed the Code of Stratigraphic Nomenclature to the degree necessary to establish formal names. Whether or not the intent was to establish formal nomenclature, the failure to follow the common-sense principles set forth by the Code somewhat discredits the otherwise excellent presentation of correlations.

Some examples follow:

In paragraph 3 of note 3 on section 15 the 2nd Massive Sand is assumed to be Upper Cretaceous because it lies unconformably below the Paleocene McCormick Sand and conformably above Upper Cretaceous strata. This is not a valid basis for age determination; the authors are aware of this because the section shows D-zone (Paleocene) at different places both below and above an unconformity and Eocene-Paleocene contact near, but not at, an unconformity.

Mokelumne Formation (long in need of definition) and the 2nd and 3rd Massive Sands are clearly depicted on both sections as belonging to C and D-1 zones. This is not true for they do not contain foraminifera by which these zones are identified. A biostratigraphic zone is defined solely by the fossils it contains. As the intent appears to be to establish a time equivalency for these rocks to the C and D-1 zones it would be correct to use the time-stratigraphic terminology Lower Ciervan and Upper Ingramian Stages rather than C and D-1 zones. Furthermore the Mokelumne Formation is defined in section 15 as being distinct lithologically and geographically from the 2nd and 3rd Massive Sands yet the sections are labelled with both names at several places.

The redefinition (in section 16) of the Lathrop Sands of Teitsworth to Lower Lathrop Sand and the new definition of some 1000 feet of overlying strata as Upper Lathrop Sand gives rise to the problem of interpreting any future communication on the subject. Ample warning on the problem is given in Article 14 of the Code. A new unoccupied name would have been much preferred.

In note 5 on section 16 the H & T Sand and the Peterson Sand are defined as certain intervals in Amerada "Union W Unit", although they are clearly named after other wells. The type should be in the well after which they are named, either first found or first productive, i.e. an H & T well and a Peterson well. These sands are clearly members or tongues of the Starkey Sands and should be so named.

Careless use of nomenclature with regard to rock-, bio-, and time-stratigraphic units and time units is shown, for example: "...which is assumed to be Upper Cretaceous in age." is obviously talking about time so should read Late Cretaceous in age, and the mixture "...marine sands of late Upper Cretaceous age."

It would have been most helpful to indicate on the sections the intervals in wells in which diagnostic fossils were found so as to better evaluate the validity of the bio-stratigraphic terminology.

The problem of rock-stratigraphic nomenclature could be resolved in part by the use of members, such as H & T member of the Starkey Sands, when subdivisions of well-known formations are involved, and by arbitrary committee decisions on geographic boundaries of shale units when their lateral extent becomes obscure owing to the disappearance of an overlying or underlying sand body. For example, the Winters shale is well defined where it lies between the Starkey Sands and the Sacramento Shale, but problems arise where Starkey Sands begin to disappear. Subdivisions of the Winters shale would best be designated members, as the Sawtooth shale member of the Winters Formation. I see no need for the term Delta Shale unless it is required in a different geographical area from the Winters Formation and such requirement has not been invoked in favor of its use.

I recoil from criticizing those who have worked long, diligently, and charitably for a worthy cause, yet I am compelled to point out that, though well-intended, some of the recommended nomenclature can only lead to additional confusion. Nevertheless the sections are very useful and should be close at hand for anyone interested in the Sacramento Valley.

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Editor's note: Bill Edmondson has drafted a response to this critique. It currently is being reviewed by his committee and will appear in the next issue.

#### CONTINUING EDUCATION

Tom Wright, Standard Oil of Calif., is the Chairman of the Committee on Continuing Education. Please direct any request to him concerning all subjects and/or speakers.

His address: P. O. Box 606  
La Habra, California 90623  
Phone: (213) 691-2251

## *The Professional Corner*

For the benefit of those members who could not be present at the regular Pacific Section noon luncheon of June 1st, the following abstract of a talk by Arthur F. Brunton, Executive Director of the American Institute of Professional Geologists is presented.

#### IS GEOLOGY A PROFESSION ?

##### Abstract

The advantages of status as a true profession have caused geologists to affect an occupational status that may not be rightfully theirs. The true professional status enjoyed by law, medicine, accounting and others has been achieved through an attainment of the following four basic goals:

PUBLIC RECOGNITION  
SELF-REGULATION  
STABILITY  
UNITY

Geology has been in the public eye more and more in recent years, but more often for disasters as a result of geologic conditions than for Geology's contribution to the public welfare. The public appears to identify Geology with geologic hazards more as a cause than a solution. Geologic scientific societies have had some limited success in public relations, but only with respect to scientific and educational matters.

Geologists on opposite sides in a public controversy have been prone to be over cautious and have issued statements that have been too indefinite and highly qualified. In matters of public welfare, the public demands, and is entitled to receive, definite, well-considered statements. The public must be convinced that the practice of Geology has developed in each practitioner an attitude of mind and a professional approach that places the greatest emphasis on excellence of service in meeting the needs and requirements of the client and the public.

Geologists have attempted to gain initial public recognition through certification programs, but more than one certification program only serves to confuse the public. A certification program without additional professional action will prove detrimental to the participants.

Self-regulation is the hardest of the four basic goals to achieve. Most attempts to date to regulate geologists have been through inclusion of Geology in registration bills for engineers. Geology should stand alone as a legal entity with recognition of its individuality and uniqueness.

Petroleum geologists are most acutely aware of the lack of stability in employment in Geology. We must recognize and admit that there are incompetent and nonprofessional persons practicing Geology who must be weeded out by industry to make room for more qualified people. It is hoped that professional action can establish a set of standards that will weed out the incompetents. Until the unethical, incompetent and nonprofessional are out of Geology, no degree of stability will be possible.

Attempts that have been made to achieve the first three basic goals of a profession have met with little success because Geology lacks the unity necessary for professional status. Though the specialty organizations within Geology are able to coordinate for purposes of scientific and educational efforts, professional action requires the unification of all geologists into a single entity. Geologists are in danger of losing their cherished individualism by being forced, through a lack of unified action, into legal regimentation under the licensing bills of other professions.

In recognition of the professional necessity to achieve the four basic goals and the fact that the scientific societies were unable to split their activities without detriment to their scientific accomplishments, the American Institute of Professional Geologists was founded in 1963. The purposes of the Institute are:

1. To take action necessary to strengthen the profession of Geology;
2. To establish and continuously evaluate the professional qualifications of geologists;
3. To enhance and to preserve the standing of the geological profession in the public community;
4. To establish standards to insure the protection of the public welfare and of the profession from non-professional practices of Geology.

To date, the Institute has received over 1800 applications for membership, of which 1576 have been approved and 55 have been withdrawn or not approved.

Arthur F. Brunton  
June 14, 1967

#### ALASKA GEOLOGICAL SOCIETY

Listed below are the newly elected officers of the Alaska Geological Society for the period from June, 1967 through May, 1968:

President: Gerald W. Thomas  
Atlantic Richfield Company  
711 West 8th St.  
(P.O. Box 360)  
Anchorage, Alaska 99501

Vice-President: Vern L. Vigoren  
Phillips Petroleum Company  
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Anchorage, Alaska 99501

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Treasurer: Charles F. Johnson  
Union Oil Company of California  
2805 Denali Street  
Anchorage, Alaska 99503

#### WASHINGTON DIVISION OF MINES AND GEOLOGY

The Washington State Division of Mines and Geology transferred from the Department of Conservation to the Department of Natural Resources on July 1, as provided by Senate Bill 143, Bert L. Cole, State Land Commissioner, announced recently.

"The addition of this division to the Department of Natural Resources will expand the scope and efficiency of our Department," Cole said. "It has been engaged for more than 65 years in fundamental and applied research in the mineral deposits of the state. Under Marshall T. Huntting's capable supervision it has developed better knowledge and understanding of the geology and more capable utilization of the mineral resources of the state." Commissioner Cole said that Huntting will continue as Supervisor of the Division of Mines and Geology as it becomes a division of the Department of Natural Resources, bringing with him a staff of highly trained people.

The background of the Division has been varied and colorful, originating with the 1890 Legislature as a function of State Government, with office in Tacoma. After two years, work was discontinued for lack of appropriations. It was resumed in 1901 as the Washington State Geological Survey, and for the following 20 years the office was maintained at the University of Washington. The agency was redesignated the Division of Geology and made a part of the newly-created Department of Conservation and Development in 1921. In 1945 the agency was renamed the Division of Mines and Geology and the office was moved to Olympia.

Among the many duties assigned to the Division as set forth by legislative action are: examination of metallic and non-metallic mineral deposits of the state; preparation and distribution at cost of printing geologic and mineral resource reports and maps; publication of statistics and information about mining, milling and metallurgy; determinative examinations of ores, minerals and rocks for the public; assembly and maintenance of a library on all mining, milling, metallurgy and geology; administration of the Oil and Gas Conservation Act regulating drilling and production of oil and gas, and cooperation with the U.S. Geological Survey in making topographical maps and geologic maps and cooperations with the U.S. Bureau of Mines and all departments of state government.

#### MISCELLANEOUS RAMBLINGS

The annual Christmas dance will be held at the La Canada Country Club. Details soon!

Total registration at the 1967 AAPG-SEPM National Convention held in Los Angeles, April 10-13 was 2,649. Although the attendance was below that (3,152) of the last Los Angeles meeting in 1958, it was nevertheless somewhat greater than anticipated.

## PACIFIC SECTION DIRECTORY REVISION

Peter Gardett has generously undertaken the task of revising the Pacific Section Membership Directory. All those members who desire to submit an up-to-date photograph will be encouraged to do so.

We hope everyone will cooperate and furnish a current address, phone number, and photo facilitating this monumental job. Pete states that he will announce his detailed plan of attack next month.

In the interim any inquiries should be directed to his consulting office, 816 West 5th Street, Los Angeles. Phone: (213) MA. 6-3796.

## PERSONAL ITEMS

TOM ROTHWELL, Atlantic Richfield Co., has transferred to the Production Research Center, 3000 Dallas North Parkway, Plano, Texas, as a paleontologist in the Geological Science Group. Catherine, Tom and John (age 11) are locating in a new home in Richardson, Texas. Tom says: "Come and see us!"

JAMES M. PARKS, formerly Supervisor of Geology-Geochemistry Research at the Union Oil Company of California Research Center in Brea, has resigned that position to accept the appointment of Director of the Marine Science Center and Associate Professor of Geology at Lehigh University, Bethlehem, Pennsylvania.

ROBERT S. YEATS, Shell, our newly-elected Treasurer has been transferred to Houston. GLEN W. SPECHT, Humble, has graciously accepted this position on the Executive Committee.

RICHARD E. ANDERSON AND NICK NICHOLERIS, formerly of Atlantic Richfield Company, Long Beach, have opened a consulting paleontology lab at 1336 Callens Road, Suite J, Ventura, California 93003.

MEL HILL, Gulf Oil in Pittsburgh, was in town this month visiting old friends.

PHILLIP KISTLER, and family are touring Spain and visiting the VIC KING family in the French Riviera. Vic is with Mobil in Paris.

BILL MERRILL, formerly of Standard Oil of Calif., was a recent visitor in Los Angeles. Bill is now a consultant in Singapore.

BIBLIOGRAPHY  
OF RECENT PUBLICATIONS

## U. S. GEOLOGICAL SURVEY

Professional Paper 395: Areal geology in the vicinity of the Chariot site, Lisburne Peninsula, northwestern Alaska, by R. H. Campbell

Professional Paper 497-C: Petrology of sediments underlying areas of land subsidence in central California, by R. H. Meade

Professional Paper 573-A: Recent Foraminifera from the Gulf of Alaska, and southeastern Alaska, by Ruth Todd and Doris Low.

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OM 126: Geology of the Arctic slope of Alaska, by T. G. Payne and others 1951 (reprinted 1967)

THE ORE BIN, Vol. 29, No. 6, June 1967

Regional gravity of Oregon, by Joseph W. Berg, Jr. and John V. Thiruvathukal

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Upper Cretaceous stratigraphic discontinuity, Northern California and Oregon, by Gary L. Peterson

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Geology and exploration of Three Bass Strait Basins, Australia, by Lewis G. Weeks and Brian M. Hopkins

THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS BULLETIN, Vol. 51, No. 6, Part I of II, June 1967

Source rocks and criteria for their recognition, by R. C. Fuloria

Lower Cretaceous stratigraphic discontinuity in northern California and Oregon, by Gary L. Peterson

Upper Paleocene buried channel in Sacramento Valley, California, by A. B. Dickas and J. L. Payne

CHANGE OF ADDRESS

NEW MEMBERS

Don H. Blount  
Union Oil Company  
P. O. Box 76  
Brea, California 92621

Donald G. Scanlin  
P. O. Box 935  
Santa Paula, California 93060

E. W. Scott  
Union Oil Company  
P. O. Box 76  
Brea, California 92621

G. W. Thomas  
Atlantic Richfield Company  
P. O. Box 360  
Anchorage, Alaska 99501

Jerry Hodgden  
5141 Comercio  
Woodland Hills, Calif. 91364

Robert O. Beringer  
c/o Conoco  
4247 Telegraph Road  
Ventura, Calif. 93003

Harry Ptasynski  
P. O. Box 43  
Casper, Wyoming 82601

Gerald W. "Jake" Thomas  
P. O. Box 360  
Anchorage, Alaska

Donald M. Davis  
519 Dartmouth Place  
Pasadena, Calif. 91103

William H. Smith  
Standard Oil Company of Calif.  
P. O. Box 606  
La Habra, Calif. 90631

David C. Bushnell  
Standard Oil Company  
P. O. Box 606  
La Habra, Calif. 90631

Phillip L. Work  
GTS Corp.  
811 West 7th Street, Suite 200  
Los Angeles, Calif. 90017

Arthur C. Brookly, Jr.  
P. O. Box 629  
Ventura, California 93002

Charles V. Lee, Jr.  
P. O. Box 3357  
Ventura, Calif. 93003

S. F. Hamilton  
925 Harbor Plaza Drive  
Long Beach, Calif. 90802

The address of the Washington State Division of Mines and Geology has been changed to:  
Department of Natural Resources  
Bert L. Cole, Commissioner of Public Lands  
Division of Mines and Geology  
P. O. Box 168  
Olympia, Washington 98501

James M. Parks, Director  
Marine Science Center  
Lehigh University  
Bethlehem, Pennsylvania 18015

Lon D. Cartwright  
111 Marquez Place  
Pacific Palisades, Calif. 90272

Quentin R. Query  
127 Pasatiempo Drive  
Bakersfield, Calif. 93305

Ward Abbott  
P. O. Box 2241  
Houston, Texas 77001

James G. Herblin  
c/o Tidewater Oil Company  
225 Baronet Street  
New Orleans, Louisiana 70112

Milton Zeni  
c/o Chevron Oil Co.  
670 First National Bank Bldg.  
Oklahoma City, Oklahoma

Jim Harton  
10418 El Rancho Drive  
Whittier, Calif.

John C. Crowell  
Department of Geology  
University of California  
Santa Barbara, Calif. 93106

Eugene A. Templeton  
2222 Camilar Drive  
Camarillo, California 93010

James W. Higgins  
3304 Shasta Drive  
San Mateo, California 94403

Vernon E. Rutherford  
3128 Astoria Blvd.  
Oklahoma City, Oklahoma 73122

Forrest B. Childs  
Gulf Eastern Company  
2, Portman Street  
London, W. 1  
England

Charles E. Kirschner  
2473 Capt. Cook Drive  
Anchorage, Alaska 94503

John M. Nisbet, Jr.  
3947 W. Barrett Lane  
Seattle, Washington, 98199

H. E. Harrington  
307 Greenhills  
9th Street, Killarney  
Johannesburg  
South Africa

Atlantic Richfield Co.  
Production Research Ctr.  
P.O. Box 2819  
Dallas, Texas 75221

Dale Wallington  
Pouch "M"  
Juneau, Alaska

Richard F. Walters  
University of California  
School of Medicine  
Davis, California 95616

Edgar W. Wellbaum  
BP (North American) Ltd.  
620 Fifth Avenue  
New York, New York 10020

Arthur B. Ramsey  
P. O. Box 790  
Evergreen, Colorado 80439

Jack S. Leach  
8062 Crosnoe  
Van Nuys, Calif. 91405

Eugene R. Bottoms  
6452 Rutgers  
Huntington Beach, Calif. 92647

Thomas Clements  
Suite 230  
2323 West 3rd Street  
Los Angeles, Calif. 90057

Stanley D. Conrad  
Atlantic Richfield Co.  
555 South Flower Street  
Los Angeles, Calif. 90017

Joseph H. Fantozzi  
2846 Serong Pl.  
Costa Mesa, Calif. 92626

E. F. Sabatka  
Humble Oil & Refg.  
P. O. Box 7033  
Long Beach, Calif. 90807

Thomas H. Sisk  
Humble Oil & Refg.  
P. O. Box 7033  
Long Beach, Calif. 90807

J. W. Vernon  
17911 Bascom  
Newport Beach, Calif. 92664

John W. Ruth  
501 Rosemarie Drive  
Arcadia, Calif. 91006

James C. Wise  
Atlantic Richfield Company  
5900 Cherry Avenue  
Long Beach, Calif. 90805

M. E. Weidler  
28327 Lomo Drive  
Palos Verdes Peninsula, Calif. 90274

Shirley M. Valencia  
3830 North Bartlett Avenue  
Rosemead, Calif. 91770

R. F. Dondanville  
759 Via Manana  
Santa Barbara, Calif. 93103

Mike Acosta  
#47, 58th Place  
Long Beach 3, Calif.

Stanley E. Cebull  
Dept. of Geosciences  
Texas Technological College  
Lubbock, Texas 79409

Donald R. Lindsay  
Shell Oil Company  
1008 W. 6th Street  
Los Angeles, Calif. 90054

Jack R. Sheehan  
Standard Oil Co. of Calif.  
P. O. Box 606  
La Habra, Calif. 90631

W. W. Wornardt  
Union Oil Research Center  
P. O. Box 76  
Brea, Calif. 92621

George K. Robertson  
31162 Brooks St.  
South Laguna, Calif. 92677

F. E. Vandenberg  
Terminal Oil Co.  
2975 Wilshire Blvd.  
Los Angeles, Calif. 90005

John N. Thomson  
401 South "H" Street  
Apt. 11  
Bakersfield, Calif. 93304

Donald Bruce  
Skelly Oil Co.  
1860 Lincoln Street  
Denver, Colorado 80203

Bruce A. Black  
Shell Oil Co.  
1008 W. 6th Street  
Los Angeles, Calif. 90017

Charles E. Lilly  
2065 Montrose Street  
Thousand Oaks, Calif. 91360

W. E. Kennett  
1306 Santa Barbara Street  
Santa Barbara, Calif. 93104

James R. Cox  
5690 South Union Avenue  
Bakersfield, Calif. 93307

George W. Beecroft  
Division of Oil and Gas  
520 Kentucky Street  
Bakersfield, Calif. 93305

Roland J. Bain  
2844 Latham Drive  
Sacramento, Calif. 95825

Gerald Fawcett  
1540 Fifth Street  
Wasco, Calif. 93280

John E. Szatai  
Signal Exploration and Development Co.  
Marienstrasse 18  
4 Dusseldorf 1  
Germany

Harry C. Hixson  
P. O. Box 1734  
Anchorage, Alaska 99501

Richard W. Vivion  
Humble Oil & Refining Co.  
P. O. Box 1600  
Midland, Texas 79701

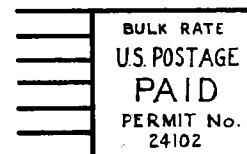
Joe A. Williams, Jr.  
4290 Long Beach Boulevard  
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Volume

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# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

October, 1967

Number 10

### ASSOCIATION ACTIVITIES

#### A.A.P.G. LUNCHEON MEETING

Ted L. Bear, Pacific Section President, was the guest speaker at the luncheon meeting held Sept. 21 in Los Angeles. His topic was "Geology and Politics of South Africa" and was enthusiastically received by approximately 70 members and their guests. Mr. Bear presented pertinent geographical and political data as well as a necessarily generalized and authoritative description of the geology.

Prior to the speaker's presentation, the subject of the up-coming monthly evening meeting was discussed. This meeting, and those to follow, will be in lieu of both the noon luncheon meeting and the evening forum. They will consist primarily of free beer and a barbecue, a raffle, and a geological presentation by a guest speaker.

Time: October 19, 1967

Place: Standard Oil Company's Northam Station in La Mirada.

Route: Santa Ana freeway to Valley View turnoff, proceed north on Valley View to Alondra Blvd. (one long block), east on Alondra for three-quarters of a mile, and park. Look for signs.

#### HEADQUARTERS ANNOUNCES PILOT PROGRAM

Over sixty Oklahoma oil company executives have been invited by Governor Dewey F. Bartlett to represent their companies in planning a joint program of selling oil industry careers to outstanding geology majors of the nation's colleges and universities. The top officers or exploration managers of petroleum firms with headquarters or division offices in Oklahoma have been invited to meet with the Governor and officers of the A.A.P.G. at a meeting to be held at the Governor's Mansion on Thursday, Sept. 21.

The program, a cooperative effort of the Governor's office, the AAPG and the petroleum industry, consists of 1968 summer employment with Oklahoma oil companies for the outstanding geology students. The AAPG will contact the school and aid in setting up standards for the selection of young geologists to work in Oklahoma. It will also work with the oil companies to establish quotas of students for employment next summer.

A.A.P.G. President, J. Ben Carsey, pointed out that the project will be a pilot program for AAPG and that, based on the experience with the Oklahoma program, it may be offered in cooperation with other states. Under the AAPG's coordination, the geology departments of Oklahoma University, Oklahoma State University, and the University of Tulsa will be invited to participate in the program.

Supervising the program for AAPG will be the association's Special Committee on Student Summer Employment, Frank O. Bennett of Helmerich & Payne, Inc., Tulsa, Chairman. Other Oklahoma geologists on the recently formed committee are Richard M. Berry, Mobil Oil Corp., Oklahoma City, and James L. Martin, Jr., Sinclair Oil and Gas Co., Tulsa.

#### 1967-68 AAPG DISTINGUISHED LECTURE TOUR

Three out of the four lecturers on the AAPG Distinguished Lecture Tour for 1967-68 are well-known California geologists, much to the honor and glory of themselves, their organizations, and the Pacific Section AAPG.

Dr. Donn S. Gorsline, Los Angeles, Professor of marine geology at the University of Southern California, will speak on "Sedimentary processes and their role in the formation of future source and reservoir rocks".

Dr. James R. McNitt, San Francisco, Geologist, State Division of Mines and Geology, will lecture on the "Status of geothermal resources development". Jim has just returned to the Division after two years on loan to the United Nations as technical advisor in geothermal resources.

Harold Masursky, U. S. Geological Survey, Menlo Park, has the subject of the "Geology of the Moon". He will include the latest photos and information from Lunar Orbiter 5.

Gordon Oakeshott, San Francisco, State Division of Mines and Geology, is currently representing the Pacific Section for a second three-year term on the AAPG Distinguished Lecture Committee under the Chairmanship of J. R. Jackson, Jr., Humble Oil, Houston. Gordon had no California bias in recommending these three distinguished lecturers; they were simply and obviously the best men in their respective fields!

## A SECOND DEFENSE OF RATIONAL STRATIGRAPHIC NOMENCLATURE: A RESPONSE

### EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

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Sacramento Petroleum Association  
Northwest Geological Society  
Alaska Geological Society

### PACIFIC PETROLEUM GEOLOGIST

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#### EDITOR:

Assistant Editors: Dan E. Duggan  
Bill T. Bradford  
Frederik E. Dekker

Selected Bibliography Lucy Birdsall

#### CORRESPONDENTS:

Alaska	Ernie Lian
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San Joaquin	Chester H. Rudel
Membership Secretary	Pat Metcalf

Last month's issue (Vol. 21, Nos. 8&9) contained a critique submitted by H. W. Sullwold, Jr. in which he discussed Sacramento Valley Correlation Sections 15 and 16. The following is a response prepared by the authors of said cross sections.

Harold H. Sullwold, Jr. makes several points in his critique that we feel should be answered by the committee that prepared these sections.

1. Mr. Sullwold objects to our reasons for placing the 2nd Massive Sand in the Upper Cretaceous.

Comparison of the unconformity beneath the 1st Massive Sand to that beneath the Meganos Shale and within the Paleocene is a poor comparison because the unconformity beneath the Meganos Shale truncates considerably less section - except in the area of the Meganos Gorge - and is of less regional significance.

We were aware of, but not in total agreement with, reported occurrences of fossil evidence from the 2nd Massive Sand and the underlying Hall Shale, which indicate late Cretaceous age. Some of this fossil evidence has been previously reported by Callaway (1) and Edmondson (2).

Even though most of us were convinced that the age of the 2nd Massive Sand is late Cretaceous, this age designation was listed as "assumed" in the notes on these sections because the evidence cannot be considered conclusive. Had we not used the word "assumed", then Sullwold's criticism on this point would have been more valid.

2. The contention that the Mokelumne Formation does not contain definitive C and D-1 fauna is correct.

Geologists working the Sacramento Valley have used Goudkoff's zonation for many years and use of the terminology suggested by Sullwold, Lower Ciervan and Upper Ingramian, would have been less satisfactory, and according to Goudkoff (3), would similarly imply presence of C and D-1 zone fauna.

A designation of Upper Cretaceous undifferentiated might have been more desirable.

3. Use of a new unoccupied name for that unit which we designated the Upper Lathrop Sand was rejected because we felt that new names should not be introduced unless absolutely necessary. Such a new name would have been confusing because that unit has commonly been called Lathrop Sand in areas where it has good sand development. Our decision and the relationship to Teitsworth's (4) originally defined Lathrop Sand are clearly stated in note 8 on Correlation Section 16.

4. The Union "W Unit 1" was used for interval designation of the individual members of the Starkey Sands because it was on both Correlation Sections 15 and 16. These names, H & T, Petersen, and K-1, have come into usage through informal evolution rather than by formal definition of given type sections.

Sullwold states that "These sands are clearly members or tongues of the Starkey Sands and should be named." This we did. On both sections the vertical extent of the Starkey Sands is shown and the individual units designated. Apparently, our only crime was failure to use the specific word "member."

DEADLINE NEXT ISSUE

OCTOBER 20

5. We did err in not specifically stating that the Midland Fault was arbitrarily chosen as the dividing line between use of the name Mokelumne Sands east of the fault and 2nd and 3rd Massive Sands west of the fault. Transition from one general facies to another naturally covers a broad general area. We felt that all common names by which units are called should be included - preferred names first, others in parenthesis - so that the sections could be used to translate from one set of terms to another. Many people have complimented us on this and we recommend its continued usage.

The name "Delta Shale" is not acceptable to many, but it has been used frequently since it was defined by Silcox (5) in 1962. We think that not using it would have been the greater error.

6. Objection was made to "...arbitrary committee decisions on the geographic boundaries of shale units..." Most of the accepted subsurface terminology for the Sacramento Valley has come from previous "...arbitrary committee decisions..." After publication of Correlation Section 13 (6) in 1960, many voiced strong objection to the introduction of certain names: such as Starkey Sands, Winter Sands and Shales, Sacramento Shale and Dobbins Shale. However, now these names have become quite well accepted. We felt that prior efforts in naming units had been commendable and the only new name introduced was the Mokelumne Formation.
7. These sections were a joint effort of seven people and, therefore, a number of compromises on terminology were necessary. It is unfortunate that we cannot use names that strictly adhere to the stratigraphic code of nomenclature. To do so would void most of the accepted names and force usage of names that would probably be unsatisfactory to all.

Sullwold's critique contains much that is of merit and that should be considered by future correlation section committees. We welcomed his critique, in fact, the possibility that it would be forthcoming was a subject of frequent comment at our committee meetings.

Alvin A. Algren  
David C. Callaway  
Donald F. Collins  
William F. Edmondson  
Robert R. Morrison  
Rodney Nahama  
Spencer J. Reber

#### References cited:

1. Callaway, D. C., 1964, Distribution of Uppermost Cretaceous Sands in the Sacramento-Northern San Joaquin Basin of California: Selected Papers presented to San Joaquin Geological Society, v. 2, p. 5-6.
2. Edmondson, W. F., 1965, The Meganos Gorge of the Southern Sacramento Valley: Selected Papers presented to San Joaquin Geological Society: v. 3, p. 47.
3. Goudkoff, P. P., 1945, Stratigraphic Relations of Upper Cretaceous in Great Valley, California: Am. Assoc. Petroleum Geologists Bull., v. 29, p. 984-985.

4. Teitsworth, R. A., 1964, Geology and Development of the Lathrop Gas Field, San Joaquin County, California: Selected Papers presented to San Joaquin Geological Society, v. 2, p. 19-20.
5. Silcox, J. H., 1962, West Thornton and Walnut Grove Gas Fields, California: Calif. Div. of Mines and Geol., Bull. 181, p. 140-148.
6. Harding, T. P. et al, 1960, Correlation Section 13, Sacramento Valley, Red Bluff to Rio Vista, California: Pacific Section, A.A.P.G.

Editor's Note: Academic discussion such as this is welcomed and indeed solicited by the editors. We believe this type of exchange is of some benefit to all concerned.

Sam Brown, who is in charge of Pacific Section Publications (address on page 2), informs us that there is a good supply of these cross-sections still available. Order now while they last!

1966 - 1967

#### TREASURER'S SUMMARY REPORT

Significant factors which affected the duties of the Pacific Section Treasurer during the past term included the change from calendar to fiscal year, emphasis on publications sales, and the need to adhere carefully to requirements imposed on tax-exempt, nonprofit organizations. These factors will carry over into the new term, and the following points should be considered:

- 1) As a consequence of conversion to a fiscal year, dues have been collected through June, 1968. The present balance in the Section's checking account is amply adequate to carry normal Section activities until dues monies are received next February and March.
- 2) Publications sales during the past term reached a gross volume of approximately \$4,500. The Publications Committee has been functioning effectively. Also, the Publications Committee should not handle orders for other societies' publications, unless the society is willing to provide the Committee with an adequate stock and pay the normal 15% commission, plus postage, for mail order sales.
- 3) Our status as a tax-exempt nonprofit organization enjoins that all activities which are limited to members (or subscribers) be self-supporting, so that none of the net income from publications or conventions is used for the benefit of members only. With a minimum of care, we have avoided any such problems. The Spring Picnic and Christmas Dance have been held very close to the break-even point. Convention surpluses traditionally finance the initial cost of the publications whose primary sale is at the conventions.

The current dues level (\$3.50 per year) almost exactly covers the incremental cost of serving a new member, which is: Newsletter - \$1.14; general mailings (dues, ballots) - \$0.40; support of local society programs - \$2.00. Some adjustment in optional mailing charges and policy seems in order.

# SOONER STATE IN '68

- a) Los Angeles Notices to Residents Outside the Los Angeles Basin, currently \$1.00/year extra, costs the Section \$2.30/year/person extra. It should be raised to at least \$2.00/year.
- b) Alaska (and Hawaii) members have almost never used the \$2.00/member local-support subsidy. Airmail service to these members averages \$1.40/member/year. I recommend that, with the next dues notice, free airmail service be provided these members, in lieu of a subsidy to the Alaska Geological Society.
- c) Overseas airmail service, for which our current charge is \$1.00/year extra, has been provided to 23 members at an average cost of \$5.75/year/person. Although the \$2.00/person local society subsidy rightfully applies here, also, the Overseas airmail charge should be raised to at least \$3.00/year.

T. L. Wright  
Pacific Section Treasurer,  
1966 - 67

## 43RD ANNUAL MEETING PACIFIC SECTION AAPG-SEPM-SEG

Theme and tentative program for the 43rd Annual Meeting of Pacific Section AAPG-SEG-SEPM to be held in Bakersfield, California, on March 28, 29, and 30, 1968 at the Civic Auditorium has been released by the steering committee under the guidance of the General Chairman, David R. Martin, 5000 Stockdale Highway, Bakersfield, California, 93309.

Theme of the meeting will be: EXPLORATION FRONTIERS

Tentative schedule of meetings is as follows:

March 28	Morning	Joint AAPG-SEPM-SEG session.
	Noon	Joint Luncheon; distinguished speaker.
	Afternoon	Individual AAPG, SEPM, SEG sessions.
	Evening	Joint social hour.
March 29	Morning	Symposium on Geothermal Resources
	Noon	Alumni luncheons.
	Afternoon	Individual AAPG, SEPM, SEG sessions. Joint preview of field trips at close of papers.
	Evening	Joint dinner dance.
March 30	Two field trips.	
	1. All day field trip, "West-side San Joaquin Valley Geology and Oil Fields".	
	2. Morning field trip, "Recent Tectonic Features Near Bakersfield."	

More than 4,000 petroleum geologists and other earth scientists will gather in Oklahoma City April 22-25 for the 53rd annual meeting of the American Association of Petroleum Geologists, according to Edwin P. Kerr, Jr., Mobil Oil Co., Oklahoma City, convention general chairman. Mr. Kerr said that the theme of the meetings which will be held in conjunction with the 42nd annual meeting of the Society of Economic Paleontologists and Mineralogists, will be "Geology of the Giants." He said much of the technical program will concentrate on study of the giant oil and gas fields of the world and their relationship to the modern exploration programs conducted by major oil companies and independents alike.

General vice-chairman for the convention is H. G. Davis, consulting geologist, Oklahoma City. W. E. Ham Oklahoma Geological Survey, Norman, Okla., is vice-chairman for SEPM. Convention host is the Oklahoma City Geological Society.

## SAN ANDREAS FAULT CONFERENCE SEPTEMBER 14, 15, 16, 1967

Art Grantz of the U.S. Geological Survey and William Dickinson of Stanford conceived the idea of a conference where speakers would present new data bearing on the San Andreas fault problem. Jointly sponsored by Stanford University and the U.S. Geological Survey, the resulting Conference on Geologic Problems of the San Andreas Fault System proved to be a great success.

The wide range of the problem was illustrated by some thirty odd papers which covered the spectrum from geophysics to speculations regarding continental drift; from recent fault displacement of a fraction of an inch to the inference that Upper Cretaceous sediments have been offset by 300 miles horizontally on the San Andreas fault.

John Crowell's mega-thoughts on the North American continent's westward drift over eastward moving oceanic crust caught the attention of the local Press. The San Francisco Chronicle was suitably horrified at the prospect he envisions of the fragmentation of the west edge of the continent during this process.

The University expects to publish the proceedings of this conference early in 1968.

## NATIONAL ASSOCIATION OF GEOLOGY TEACHERS

The Fourteenth Annual Meeting of the Far Western Section of the National Association of Geology Teachers will be held on March 30-31, 1968, at California State College at Chico, Chico, California. For further details write:

Mr. Paul Dawson, Secretary-Treasurer  
Far Western Section, N.A.G.T.  
Department of Geology  
College of the Siskiyous  
Weed, California

## COAST GEOLOGICAL SOCIETY

The annual barbecue and fun-time was held recently on the Lagomarsino Ranch with 50 stalwart geologists and friends in attendance. Jack Wood led the food-making brigade (Vidos, Fawcett, and Wilkes) to greater heights of culinary effort than ever before.

Tennaco, Inc., has moved into Ventura to look at the offshore. We wish them good hunting and a welcome to the garden spot of the oil industry. Phillips Petroleum Co. has located in Santa Barbara and is enjoying cultural life in the city of light by the sea.

The Coast Society is sorry to see the Standard Oil crowd leave garden spot Ventura for the discomfort and fun of upper Orange County. Have a good time at the "think factory" and we'll all chip in and buy Larry Kuenzies' boat. He says they won't let him sail it in the pond at Disneyland.

A.I.P.G. CALIFORNIA SECTION HOLDS  
THIRD ANNUAL MEETING

"The Stature of Geology" was the theme of the annual meeting of the California Section of the American Institute of Professional Geologists held at Santa Barbara on September 22. Some revealing insights into the future as well as the present status of geologists were brought to light. The assembled members determined a course of action in the face of impending state legislation about geologists. The following slate of officers will head the Section for the coming year: President, Edward A. Danehy; Vice-Presidents, Edward A. Gribi, Jr. and William H. Crutchfield; Secretary-Treasurer, William C. Gussow.

## S.E.G. ACTIVITIES

On September 21st the Society of Exploration Geophysicists, Los Angeles and Bakersfield sections, heard Mr. Mel Carter, Geophysical Service Inc., Dallas, Texas, speak on "Velocity Determination Utilizing Advanced Marine Processing System".

S.E.G. Program Chairman, Jim Groom (Union Oil), announces the following schedule of forthcoming meetings:

October 19th -- Mr. Miller Quarles, Petty Geophysical, San Antonio, Texas.  
"A Universal Diffraction Chart for Practical Fault Interpretation".

November 16th -- Dr. Milton Dobrin, United Geophysical Corporation, Pasadena.  
"Use of Frequency Windows in Data Enhancement".

The above programs will be held at Union Oil Center Auditorium at 12:45 PM, and will also be presented in Bakersfield on October 19th and November 15th respectively.

S.E.G. President, Sam Patterson (Tetratich), announces that a survey will shortly be undertaken to determine industry interest in S.E.G. Continuing Education Seminars planned for January and February, 1968. Lucius Geer (Signal Oil) is the Pacific S.E.G. representative to the National S.E.G. Committee on Continuing Education.

DEPARTMENT OF GEOLOGY  
SAN JOSE STATE COLLEGEFACULTY NEWS:

Bob Arnol (Ph.D. - U.S.C. - 1957) has returned after a 1½ years leave studying advances of oceanography at La Jolla, Seattle, and Bordeaux, France.

John Brooke (Ph.D. - Utah - 1964) is working on the engineering aspects of landsliding and earthquake in the Santa Clara Valley, and is supervising a study of micrometeorites for N.A.S.A.

Norman Dolloff (Ph.D. - Stanford - 1950) is the Chairman of the Department and has recently completed an audio-visual program for Alum Rock Park.

Wayne Kartchner (Ph.D. - Arizona - 1944) recently returned from a sabbatical which he spent in Hawaii studying volcanism.

Marshall Maddock (Ph.D. - Calif. - 1955) is participating in the N.A.S.A. project on micrometeorites and recently has published a map of the Boardman Quadrangle and a guide to the San Andreas Fault from San Francisco to Hollister.

Bob Rose (Ph.D. - Calif. - 1957) is studying the geology of the Virginia Range near Reno and the structure of the east side of the Santa Clara Valley.

Stan Skapinsky (Ph.D. - Boston - 1961) is currently working on an experimental science course at S.J.S.C.

Cal Stevens (Ph.D. - U.S.C. - 1963) is presently working on the Permian history of the Great Basin, and the structure and stratigraphy of the Inyo Range, California.

GRADUATE NEWS:

Last spring there were 26 graduate students and 20 of these were working toward an M.S. in Geology. A few of the students and their projects are:

Jim Berkland - Geology of the Novato Quad.,  
Marin Co.

Max Blanchard - Micrometeorites

Chris Buckley - Structure of the Kingsley Mtns.  
Nevada.

Charles Carter - Geology of the Morgan Hill  
Quad.

George Dunne - Petrology of the Pat Keyes Pluton,  
Inyo Co.

Gary Greene - Sediment Transport along beaches  
of Nome, Alaska.

Ed Johnson - Faulting in the Inyo Range, Calif.

Jim Pinkerton - Geology of the South Vallecitos  
area.

Paula Quintero - Foraminiferal distribution in  
San Francisco Bay.

Loren Raymond - Geologic mapping near Tracy,  
Calif.

Gene Smith - Geochemical Survey near Lampoc,  
Calif.

Steve Wolf - Current pattern in Monterey Bay.

The graduating class of 1967 included 19 students  
receiving bachelor's degrees in Geology.

#### NEW FACILITIES:

During 1966 several State Colleges including  
San Jose State purchased the laboratories of the  
Beaudette Foundation at Moss Landing on Monterey  
Bay. The Dept. of Geology expects to expand its  
work on Marine Geology considerably.

#### FRUSTRATIONS OF AN OILMAN

There was once a channel, Santa Barbara by name,  
Whose subsurface rocks were thought to contain  
Much of that stuff that is commonly called  
Petroleum, Oil, or simply black gold.

And the time came to pass when the Fed. thought it  
meet  
That a sale should be held for all to compete  
And provide Uncle Sam with a bonus in cash  
But it turned out those hopes had been awfully rash.

For there are in these parts many gremlins and such  
That do not like oilmen at all very much.  
The hue and the cry could be heard miles away  
And the sale was postponed to a much later day.

First came the city with a vehement nay  
"We don't want that mess," they reputedly say.  
Next was the county to put its bid in  
"The equipment onshore must be suitably hidden."

The club of Sierra let out with some squeals  
"Who will take care of all those poor seals?"  
At last came the Coastguard with a six-mile-wide lane.  
So ships could pass freely in this public domain.

The results coming out of this hullabaloo  
Were many and varied but essentially two:  
The land left for leasing was awfully small  
And the sale was postponed until "late in the Fall"

The seals go on swimming, the ships do their shipping  
But all is not quiet, for nobody's quitting  
The gremlins maintain that on victory they're bent  
While the oilman laments for the money he's spent.

F.E.D.

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FOR 1967 - 1968

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Phone: 213 - DU 5 - 0515

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811 West 7th Street  
Los Angeles, California 90017  
Phone: 213 - 626 - 1167

#### CHRISTMAS DANCE:

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P. O. Box 7600  
Los Angeles, California 90054  
Phone: 213 - 482 - 7600

#### CONTINUING EDUCATION:

Tom Wright - Standard Oil Co. of California  
P. O. Box 606  
La Habra, California 90623  
Phone: 213 - 691 - 2251

#### EARTH SCIENCE & EDUCATION:

Dr. Robert Osborne - University of So. California  
University Park  
Los Angeles, California  
Phone: 213 - 746 - 2719

#### MONTHLY EVENING MEETING:

Rod Colvin - Mobil Oil Corporation  
10737 South Shoemaker Road  
Santa Fe Springs, California 90770  
Phone: 213 - 723 - 8631

#### DIRECTORY:

Peter H. Gardett - Consultant  
816 West 5th Street  
Los Angeles, California 90017  
Phone: 626 - 3796

#### EDITOR - PACIFIC PETROLEUM GEOLOGIST

Dan E. Duggan - Humble Oil & Refining Company  
1800 Avenue of the Stars  
Los Angeles, California 90067  
Phone: 213 - 879 - 2700

MEMBERSHIP:

John F. Curran - Consultant  
1114 State Street  
Santa Barbara, California 93104  
Phone: 805 - 965 - 8055

NOMINATING:

Robert Knapp - Standard Oil Co. of California  
P. O. Box 606  
La Habra, California 90623  
Phone: 213 - 691 - 2251

PACIFIC COAST CROSS SECTION:

David C. Callaway - Atlantic Richfield Company  
P. O. Box 147  
Bakersfield, California 93302  
Phone: 805 - 831 - 1600

PUBLICATION SALES:

Willis R. (Sam) Brown - Buttes Gas & Oil Co.  
3132 - 18th Street  
Bakersfield, California 93301  
Phone: 805 - 327 - 2509

SAN ANDREAS FAULT CROSS SECTIONS:

Max B. Payne - Texfel Petroleum Company  
10889 Wilshire Boulevard  
Los Angeles, California 90024  
Phone: 213 - 879 - 1880

.....

PROGRAM CHAIRMAN:

Michael D. Duggan - Mobil Oil Company  
10737 South Shoemaker Road  
Santa Fe Springs, California 90670  
Phone: 213 - 723 - 8631

SPRING PICNIC:

Glen Ware - Texaco, Inc.  
P. O. Box 7221  
Long Beach, California  
Phone: 213 - GA 3 - 7994

SPRING GOLF:

Jim Harms - Union Oil Company  
9645 South Santa Fe Springs Road  
Santa Fe Springs, California 90670  
Phone: 213 - 945 - 1221

FALL FIELD TRIP:

Jay Marks - Humble Oil & Refining Company  
1800 Avenue of the Stars  
Los Angeles, California 90067  
Phone: 213 - 879 - 2700

L. A. BASIN GEOLOGICAL SOCIETY:

Tom Baldwin - Humble Oil & Refining Company  
1800 Avenue of the Stars  
Los Angeles, California 90067  
Phone: 213 - 879 - 2700

Doug Traxler - Signal Oil & Gas Company  
1010 Wilshire Boulevard  
Los Angeles, California 90017  
Phone: 213 - 482 - 0722

CALIFORNIA LEGISLATIVE COMMITTEE:

Henry H. Neel - Consulting Geologist  
727 West 7th Street  
Los Angeles, California 90017  
Phone: 213 - 622 - 6968

1969 PACIFIC SECTION CONVENTION:

John Loofbourow - Atlantic Richfield Company  
555 South Floow Street  
Los Angeles, California 90017  
Phone: 213 - MA 9 - 4111

PROJECTIONIST

U. C. L. A. Graduate School

## PERSONAL ITEMS

Standard Oil of Calif.'s softball team won the summer La Habra Company league. Captained by the "old magician" Greg Calkins the team ended up with a 16 win - 4 losses record. A trophy luncheon was held recently to honor the players.

The golf tournament held in conjunction with the Central California Oil Scouts Barbecue on Sept. 8th at the Kern River Golf Course in Bakersfield was won by Bob Lindblom, Standard, La Habra, with a low gross score of 71. The score was notable with a front 9 total of 32.

L. J. "Pat" Herrera has resigned as Vice President of Cabeen Exploration Corporation and President of Peruvian Pacific Petroleum Company to open consulting offices at 4949 San Feliciano Drive, Woodland Hills, California, telephone 213-348-4693. Pat, who lived in Peru for seven years and travelled worldwide with Cabeen, will continue to work the international as well as domestic scene.

The American Association of Petroleum Geologists' representative to the National Academy of Sciences, Dr. John T. Rouse, Houston, has been appointed as a member of the Executive Committee of the Academy's Division of Earth Sciences. Dr. Rouse, a petroleum geologist with Mobil Oil Company, will serve on the scientific organization's executive committee until June 30, 1970.

Joseph P. D. Hull, 78, prominent petroleum geologist, retired editor and business manager of the American Association of Petroleum Geologist, died in Tulsa on August 30 at his home after a prolonged illness.

Joseph Poyer Deyo Hull received a unique tribute in the full-page dedication "A History of The American Association of Petroleum Geologists: First Fifty Year," published in the Semicentennial issue of the Association's official BULLETIN in the Spring of 1966. So highly was he regarded by his colleagues that in 1957 he became the tenth man to win one of the most coveted honors in the geology profession and certainly the highest accolade the Association can bestow, the Sidney Powers Medal.

## BIBLIOGRAPHY OF RECENT PUBLICATIONS

### U. S. GEOLOGICAL SURVEY

Professional Paper 528-A: Mass properties of sedimentary rocks and gravimetric effects of petroleum and natural-gas reservoirs, by T. H. McCulloh.

**PACIFIC PETROLEUM GEOLOGIST  
PACIFIC SECTION, A.A.P.G.  
P.O. BOX 17486, FOY STATION  
LOS ANGELES, CALIF. 90017**

Volume

Number

**Return Requested**

Professional Paper 554-D: Cenozoic volcanic rocks of the Devils Postpile quadrangle, eastern Sierra Nevada, Calif., by N. K. Huber and C. D. Rinehart.

Professional Paper 567: Dictionary of Alaska Place Names, by D. J. Orth.

Professional Paper 575-C" Geological Survey Research 1967, Chapter C.

Bulletin 1241-C: Stratigraphy of the Kiky Islets and neighboring parts of Kuiu and Kupreanof Islands, southeastern Alaska, by L.J.P. Muffler.

Abstracts of North American Geology, July 1967

Circular 419: The definition of known geologic structure of producing oil and gas fields, by E. A. Finley. 1959

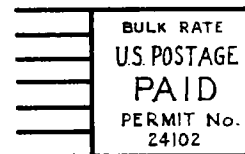
Map I-487: Reconnaissance geologic map of the Central San Rafael Mountains and vicinity, Santa Barbara County, Calif., by J. G. Vedder, H. D. Gower, H. E. Clifton, and D. L. Durham.

### CALIFORNIA DIVISION OF MINES AND GEOLOGY

County Report 5: Mines and mineral resources of Monterey County, California, by Earl Hart.

### NEVADA BUREAU OF MINES

Bulletin 64: Geology and mineral resources of Eureka County, Nevada by Ralph J. Robert, Kathleen M. Montgomery and Robert E. Lehner,



**RICHARD L. HESTER DA  
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10000 SANTA MONICA BLVD.  
LOS ANGELES, CAL 90067**

# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

November 1967

Number 11

### ASSOCIATION ACTIVITIES

#### KING CITY FIELD TRIP DRAWS 150 GEOLOGISTS

The 1967 joint field trip of the Pacific Sections of AAPG and SEPM, held October 20-21, was a geological, meteorological and culinary triumph. Ideal fall weather over the intriguing geological phenomena of the Gabilan Range and adjacent San Andreas fault, supplemented by the justly famous hospitality of the citizens of King City, provided the background for excellent professional papers and sophisticated geological dialogue. Registrants included representatives of many geological disciplines and about a dozen students.

The Technical Session on Friday afternoon featured the following talks:

"Ancestral Monterey Canyon and Its bearing on deformation of the Monterey Bay Lowland" by Arthur D. Howard.

"Relationship of Miocene stratigraphy to basement tectonics of the Santa Cruz Mountains and Gabilan Range, California" by Joseph C. Clark.

"Morphologic clues to geologic history - The Northern Salinas Valley and San Andreas Fault" by Thomas A. Baldwin.

"Ancient shorelines of the Gabilan Uplift" by Edward A. Gribi, Jr.

The route of the field trip, traversed in four buses, crossed the granitic rocks of the Gabilan uplift, followed the trace of the San Andreas Fault for about 65 miles, then re-crossed the Gabilan Range at its northern end through the complex Tertiary section exposed on the San Juan grade. Highlights of the trip were the visible manifestations of creep along the San Andreas fault, the remarkably complex structure on which the Bitterwater oil field is located, and the aspect of the Tertiary formations exposed along the San Andreas rift. Exposition of these features was greatly enhanced by the meticulous preparation of the road log (by Thomas H. Rogers and committee), the knowledgeable, articulate speakers on the buses (Edward A. Gribi, Jr., Thomas H. Rogers, Thomas A. Baldwin, Oliver E. Bowen, Robert D. Nason, Henry Walrond and Richard R. Thorup), and the unique radio communication system that connected all four buses.

The magnificent Friday evening barbecue was prepared by a group of King City bankers, businessmen and ranchers. Their accomplishments were enthusiastically applauded. Refreshments for the Friday social hour and the entire field trip route were donated by sympathetic service companies and oil compa-

nies. The Saturday field luncheon (barbecued steak, etc.) was supplemented by vintage Cabernet Sauvignon donated by the Almaden winery. If the local geology did not overwhelm the visiting geologist, the local hospitality did!

The field trip route and the geology of the surrounding area are summed up in the beautifully prepared guidebook, "Gabilan Range and Adjacent San Andreas Fault", of which copies are now available for \$10 per copy, pre-paid, from the following sources:

Mr. Richard E. Anderson (SEPM)  
Anderson & Nicholeris  
1336 Callens Road  
Ventura, California 93003

Mr. Willis R. Brown (AAPG)  
Buttes Gas & Oil Co.  
3132 - 18th Street  
Bakersfield, California 93301

#### 1968-69 A.A.P.G. ELECTION

Two Texas petroleum geology consultants have been nominated for the 1968-69 presidency, of the A.A.P.G. This was announced by Texan J. Ben Carsey, of Houston, incumbent AAPG president.

The AAPG membership will vote by mail on Frank B. Conselman, of Abilene, the organization's 1960-61 vice president, and William J. Hilseweck, of Dallas, 1957-58 AAPG secretary-treasurer. Both men have been extremely active in a wide spectrum of services to the Association for many years.

Other AAPG officer nominees are as follows: Vice president, Clarence E. Brehm, independent oilman and geologist, Mt. Vernon, Ill., and John E. Kilkenny, geological coordinator, Union Oil Company of California, Los Angeles.

Secretary-treasurer, James M. Forgotson, Jr., research group supervisor, geological research division, Pan American Petroleum Corp., Tulsa, and M. Gordon Frey, chief geologist, The California Company, division of The Chevron Oil Company, New Orleans, La.

John D. Haun, AAPG Editor, has been nominated for a second term. He is professor of geology at the Colorado School of Mines, Golden, Colo.

**EXECUTIVE COMMITTEE, PACIFIC SECTION  
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS**

Ted L. Bear	President
Richard L. Hester	Vice President
Hal Fothergill	Secretary
Glen W. Specht	Treasurer
Robert R. Knapp	Past President
Dan E. Duggan	Editor
Jack Kappeler	San Joaquin Delegate
Gordon B. Oakeshott	Northern Calif. Delegate
James M. Saunders	Coastal Delegate

**ASSOCIATED SOCIETIES**

Sacramento Petroleum Association  
Northwest Geological Society  
Alaska Geological Society

**PACIFIC PETROLEUM GEOLOGIST**

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Changes of Address, subscription and membership inquiries should be addressed to: Membership Secretary, Pacific Section AAPG, P.O. Box 17486, Foy Station, Los Angeles, California 90017

Material for publication and requests for missed copies should be addressed to: Dan E. Duggan, Humble Oil and Refining Co., 1800 Avenue of the Stars, Los Angeles, Calif. 90067

Orders for Pacific Section publications and prior years' issues of the PPG should be addressed to: Pacific Section Publications, 3132 18th Street, Bakersfield, Calif.

<b>EDITOR:</b>	Dan E. Duggan
<b>Assistant Editors:</b>	Bill T. Bradford Frederik E. Dekker

<b>Selected Bibliography</b>	Lucy Birdsall
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**CORRESPONDENTS:**

Alaska	Dick Atchison
Coast	Harold Sugden
Los Angeles	Carroll L. Hoyt
Northwest	Jim Salvesson
Sacramento	Lowell Garrison
San Francisco	Gordon Oakeshott
San Joaquin	Chester H. Rudel
Membership Secretary	Pat Metcalf

**NEW P.P.G. CORRESPONDENTS**

We welcome three new "volunteers" to the list of P.P.G. correspondents. Included are:

Alaska	-	Dick Atchison, Marathon 731 "I" St., Anchorage
Coast	-	Harold Sugden Box 811, Ventura
Los Angeles	-	Carroll L. Hoyt, Walston & Co. 731 Wilshire Blvd., Los Angeles

**AAPG PRESIDENT URGES CAUTION**

J. Ben Carsey, AAPG President, has urged the U. S. to be cautious in considering a new proposal to the effect that the United Nations be delegated control of the mineral resources of the seas of the world. Speaking to 800 petroleum geologists at the 17th annual convention of AAPG's Rocky Mountain Section, President Carsey announced that he has assigned John D. Moody, vice president of Mobil Oil Co., New York, and a member of the AAPG Executive Committee, to represent the AAPG at a U. S. State Department meeting on the subject in Washington on October 12.

The World Peace Through Law Center, at a conference in Geneva, proposed that the UN take over the mineral resources of the world's oceans by proclamation.

The State Department is to be complimented on its prudence in scheduling a briefing session to develop technical background before making recommendations to our ambassador to the United Nations. At the same time, this association, with its collective and exhaustive background in mineral exploration, must take the position that it is essential that our government take advantage of expert advice from the competent geologists of the U. S. Geological Survey, who serve as advisers to the Department of the Interior. Mr. Carsey added that "The AAPG of course stands ready to provide whatever additional technical information Secretary of the Interior Stewart Udall may request."

Regarding AAPG future policies and programs, Mr. Carsey assured his listeners that "AAPG recognizes its responsibilities to society and to the industry we serve. So we have taken steps to communicate better about our Association. Particularly have we taken note of our international scientific responsibilities and we will continue to fulfill them by extending our influence more effectively beyond our nation's borders."

**NEW STANDARD STRATIGRAPHIC CODE**

The AAPG has adopted a new Standard Stratigraphic Code to fill an increasingly urgent need for a universal computer "language" to insure fast and accurate communication among the various segments of the Petroleum industry. The new eight-digit basic computer code is the result of an intensive six-month project conducted by a distinguished committee of stratigraphers and geologic data processing specialists.

Arthur A. Baker, Acting Director of the U. S. Geological Survey, has stated, "The procedure recommended for standard stratigraphic coding by the AAPG committee will be incorporated in many of our... computer programs for our geologic data. The AAPG is to be complimented on taking the big step forward in trying to standardize a stratigraphic coding system."

The AAPG's 17-member Committee on Standard Stratigraphic Coding is headed by Dr. George V. Cohee, of Washington, D. C., chairman of the Geologic Names Committee and Chief of the Geologic Names Review Staff of the U. S. Geological Survey. Dr. Cohee, reporting on the committee's recommendations for a standard means of abbreviating stratigraphic termi-

nology, said, "The code includes basic information only. Each organization which elects to use the code may add more detailed information, adapting it to their particular requirements.

#### WHAT MAKES A FIELD TRIP GO?

The recent joint annual field trip in the King City-Hollister area was an outstanding event. Some credit for its success goes to the fine fall weather some to the intriguing geology, and some to the cultural attributes of the region. But the real reason for the affair's success lies in the individual effort put forth by committee chairmen and members. Who recorded all those outcrops for the road log? Who supplied the lists of fossils? Who paid the bus company? Who persuaded the King City businessmen to put on a barbecue for 150 geologists? Who, indeed, but the committeemen! Twenty-seven of them pitched in to make the field trip go! Of these, at least 22 put in more than a full day of work, and many like Ed Gribi and Tom Rogers, spent weeks or months of labor and planning on the project. Not all of them can be properly credited here, they will get their satisfaction in looking back at a job well done. The following list does not specify 16 authors who contributed papers to the Guidebook or four speakers at the Technical Session. The following list of committeemen is not complete, but it records, with the sincere gratitude and thanks of the officers of the Pacific Sections of AAPG and SEPM and of the General Chairman, those persons without which there would have been much less or nothing.

Edward A. Gribi, Jr.	Field Trip Leader & Local Arrangements
Thomas H. Rogers	Road Log and Speaker
David L. Durham and Richard L. Pierce	Guidebook, Editors
Lesh Forrest and Morton Polugar	Guidebook, Assistant Editors
Owen W. Fauntleroy, Jr.	Finances
M.C. (Barney) Barnard	Refreshments
King W. Nash	Registration
Richard E. Anderson	Treasurer (SEPM)
John H. Beach	Transportation
Charles M. Cross	San Francisco Group
Frederick A.F. Berry	Technical Session (Planning)
Donald W. Weaver	Technical Session (Chairman)
Henry Walrond	Geologic Map and Speaker
Robert D. Nason	Sunday Field Trip & Speaker
Richard R. Thorup	Planning and Speaker
Thomas A. Baldwin )	
Oliver E. Bowen )	Speakers
Gerald L. Fletcher )	

Jay G. Marks  
Chairman  
Field Trip Committee

#### FIELD TRIP SUPPORT

The October 20-21 AAPG-SEPM Field Trip in King City was enjoyed by 150 geologists.

Contributing greatly toward their enjoyment was the ample supply of liquid refreshments rounded up and served by M. C. (Barney) Barnard, and made possible through donations by the following companies, to whom the Pacific Sections of AAPG and SEPM are profoundly grateful:

Almaden Vineyards  
Avis Rent-A-Car (a VW truck, no less!)  
Carr & Wrath  
Dyna-Drill Co.  
Exploration Logging Inc.  
Graphic Reproduction Center, Inc.  
Grover Collins  
McCulloch Oil Corporation  
Occidental Petroleum Corp.  
Ross M. Phillips  
Schlumberger

#### COAST GEOLOGICAL SOCIETY

Mr. Jack Severns of Schlumberger spoke to the Coast Geological Society in Ventura on the Latest Machine Computed Logging Techniques and Logs-by-Telephone. After a review of hand calculation methods, Jack described how taped log data is processed and the manual checks that are made of the results to insure that incorrect fixed parameters such as formation water, salinity, matrix density, etc. have not been introduced. He explained that of all calculations the most complex is the digitally recorded dipmeter. In this instance, logic and data are introduced into the computer and the machine makes some decisions as well as checking its results while computations are being made.

#### ALASKA GEOLOGICAL SOCIETY

Gerald "Jake" Thomas, Atlantic-Richfield and newly-elected president of the Alaska Geological Society, was recently transferred from Anchorage to Denver. His transfer promotes elected vice-president Vern Vigoren, Phillips, to the presidency.

Three new geologists have been transferred to Marathon's Anchorage office. This includes Bill Noonan from Corpus Christi, Cal Smith, formerly of Midland, and Bob Hiles from Regina, Saskatchewan. It is hoped that all three are equipped with the "Deep Mental Reflection Powers" which are needed to find new reserves in Alaska.

A number of Anchorage-based geologists had eventful vacations this past summer. Don Magee, Standard of Calif., spent his vacation sightseeing and watching the geisha girls in Japan. Bill Penttila, Atlantic-Richfield, travelled to Finland to visit the country and check in with relatives. He had a great time and his report sounds like a paid member of the Finnish Chamber of Commerce. Ed East, Union, spent his vacation building a fence around his exposed house on a bluff overlooking Knik Arm. One reason for building the fence is to help keep out the snow drifts which actually covered his car after one particular storm last winter.

Bill Fackler, Phillips, spent one week of his vacation in Seward in a futile attempt to catch a winner in the Seward Salmon Derby. Bill has a boat which he docks at Seward and he and his wife Janet spent almost every week fishing, sightseeing, etc. in the Resurrection Bay area.

#### SUMMARY OF AIPG CALIFORNIA SECTION THIRD ANNUAL MEETING

The theme of the meeting, "The Stature of Geology", was thoroughly discussed at the annual meeting of the California Section of the American Institute of Professional Geologists, held on September 22, 1967 at the Miramar Hotel in Santa Barbara.

Dr. S. E. Szasz of the State Lands Division in Long Beach pointed out the modern geologist is a member of a team, expert in his own specialty and well versed in all the affiliated disciplines that contribute to economic success. Dr. John W. Harbaugh of Stanford University stated that the computer will become the desk-side assistant of the geologist, acting as an extension of his thought processes, simulating the interplay of geologic processes too complicated for the geologist to carry in his head.

The theme of the meeting was further developed in excellent talks by Charles E. Melbye of the Union Pacific Railroad, William M. Ketchum, Assemblyman of the 29th District, Wilfred W. Peak of the Department of Water Resources, J. D. Hughes of GeoSearch Corporation, and M. E. Wright of the City of Long Beach. One impression derived from the talks is that the geologist must maintain his professional identity while acquiring a basic knowledge of a wide spectrum of associated disciplines.

The business meeting dealt principally with state legislation affecting geologists. Now that Senate Bill 1493 has been killed after an unfortunate amendment would have put it under jurisdiction of the Engineers' Act, what shall we geologists do? Steps were proposed, all aimed at supporting a bill that would recognize geologists as an entity, governed by a board under a Geologists' Act. Legislation is imminent, and AIPG is determined to achieve the best possible.

Some comment was heard about the apparent apathy of most California geologists toward AIPG when AIPG is working so hard to protect and advance the profession. The need was pointed out for broader support in order to represent the profession with more authority.

This excellent meeting was put together by John F. Curran, Chairman, and William A. Adent, Program Chairman. New officers of the California Section for the coming year are Edward A. Danehy (President), Edward A. Gribi, Jr. and William H. Crutchfield (Vice-Presidents) and William C. Gussow (Secretary-Treasurer.)

#### S.E.G. ACTIVITIES

On October 19th the Society of Exploration Geophysicists, Los Angeles and Bakersfield sections, heard Mr. Miller Quarles, Chief Geophysicist, Petty Geophysical, San Antonio, Texas, speak on "A Universal Diffraction Chart for Practical Fault Interpretation".

Forthcoming meetings include:

- November 15th - Bakersfield
- November 16th - Union Oil Auditorium, Los Angeles, 12:45 PM Dr. Milton Dobrin, United Geophysical Corporation, Pasadena.  
"Use of Frequency Windows in Data Enhancement".
- December 7th - Union Oil Auditorium, Los Angeles, 12:45 PM.
- December 7th - Bakersfield, Dinner Meeting.  
Mr. Carl Savit, Western Geophysical Company, Houston, Texas.  
"Nonexplosive Marine Seismic Sources."

#### UNIVERSITY OF SOUTHERN CALIFORNIA FACULTY NEWS

Robert H. Osborne, Assistant Professor of Geology

During the fall semester he will be teaching Historical Geology and Introductory Paleontology. During spring semester he will initiate a graduate level course concerning Statistical Applications in Stratigraphy and Paleontology as well as teaching an undergraduate course in Stratigraphy. His research interests include statistical applications in sedimentary petrology and stratigraphy. He is presently completing work on the type Cincinnati series in the Ohio River Valley, but will soon be starting research in southern Nevada.

T. L. Teng, Assistant Professor of Geophysics

Course offerings during Fall, 1967 will be General Geophysics, an introductory course on geophysical prospecting. This spring he will offer Applied Mathematics for Geologist, a survey of the mathematical methods used in formulating and solving problems in earth sciences. Also will be offered in the spring is Physics of the Earth's Interior, a critical discussion of current knowledge concerning the interior of the earth.

His research interests include Seismic Wave Propagation; Physics of the Earth's Interior: Attenuation, Density and Velocity Structures, Heat Flow, Magnetic Field; and Earthquake Source Mechanisms.

Richard O. Stone, Professor of Geology

In the Fall Semester he will be teaching Physical Geology and a special senior-level course for non-science majors. Geomorphology, a required course for seniors in geology, and Physical Geology will be the course presentations for the Spring semester.

His major research interest is a project with Herbert J. Summers for the Office of Naval Research involving a time lapse photographic study of sub-aerial and subaqueous ripple marks. Stone is also involved in the interpretation of Gemini space photography of the earth for NASA and with two studies of wind erosion in the Mojave Desert.

D. S. Gorsline, Professor of Geology

Course offerings during Fall, 1967 will be Marine Geology and Sedimentary Techniques. In the Spring he will offer Elements of Oceanography and Introductory Oceanography. His research interests at the moment center in the sedimentation history of Tanner Basin in the outer California Continental Borderland while his students are engaged in studies of nearshore sediments, sedimentary processes and structures in Santa Cruz Basin, structure of parts of the Atlantic Ridge, relationships between circulation and sediment character in Drake's Passage, water circulation in San Pedro Channel, suspended sediment studies and the morphology of submarine fans. This semester Dr. Gorsline will be making a 3 week tour as an A.A.P.G. Distinguished Lecturer. Research work is currently being sponsored by the Office of Naval Research, National Science Foundation and the U.S. Geological Survey.

NOON LECTURE SERIES

- Nov. 7 The Pelona Schist Problem of Southern Calif.  
Dr. Perry Ehlig, Chairman, Geology Dept.,  
California State College at Los Angeles.
- Nov. 21 Black Shells of the SE Atlantic Ocean--  
Larry Doyle, Geology Graduate Student.
- Dec. 5 Nature, Distribution and Origin at Tektites--  
Dr. Frank J. Centolanz, Ames Research Cr.,  
NASA, Moffet Field, Sunnyvale, Calif.
- Dec. 12 Two-sided Nature of the Cordilleran Orogen  
and its Tectonic Implications--Dr. Gregory  
Davis, Geology Dept., U.S.C.
- Jan. 9 Application of Marine Sediment Dispersal  
Patterns to Interpreting the Origin of An-  
cient Sedimentary Sequences--Dr. George  
De Vries Klein, Geology Dept., University  
of Pennsylvania.

Meetings are held Tuesday, noon, Room 102, East of the corner of 37th St. and Hoover St. (Adjacent to Geology "A").

UNIVERSITY OF ALASKA  
GEOLOGY DEPARTMENT

The faculty of the Geology Department at the University of Alaska is composed of six full-time teacher-researchers and currently enjoys the participation of five part-time associates who have their main affiliation with research institutes. For the Fall semester of 1967-68, the Geology Department has 17 undergraduate majors and 15 graduate students. Geology Department faculty members include:

Robert B. Forbes, Head of the Department, who teaches advanced igneous and metamorphic petrology, has research interests in the petrology and geochemistry of Alaskan volcanic rocks, eclogites, and the geochemistry of gold in the Fairbanks District.

Dan Hawkins, who teaches mineralogy and geochemistry is interested in the hydrothermal synthesis of clay minerals and zeolites.

H. Dean Pilkington, with teaching interests in petrology, structural geology and ore deposits, is working on the Ester - Cleary Dome gold deposits with Bob Forbes as one of the U.S.G.S. projects in the Heavy Metal Program.

Charles Rowett, who teaches invertebrate paleontology and biostratigraphy, just returned from an NSF Science Faculty Fellowship at Hokkaido University in Japan. Chuck's research interests are the corals in upper Paleozoic rocks of Rainbow Mountain, east-central Alaska Range and the Paleozoic Tethys coral fauna of Japan.

Tom Hamilton, who teaches geomorphology and glacial and Pleistocene geology, has current research in the glacial geology of the central Brooks Range and geomorphic studies on archaeological sites, including Onion Portage, Old Crow Basin and the Yukon-Tanana Region.

Charles Hoskin, who teaches sedimentation and marine geology, has interests in the sediments of valley glacier- fjord systems and Recent carbonate beach deposits of southeastern Alaska.

Recently completed student dissertations and theses include:

Dipak Rai (the Geology Department's first Ph.D.) Geochemistry and petrology of the Mt. Trident andesites, Alaska Peninsula.

John Matthews (MS) Fossil beetles in Pleistocene loess deposits of the Fairbanks District.

Roger Slatt (MS) Sediments of the Norris Glacier outwash area, Upper Taku Inlet, SE Alaska.

Student research projects now in progress are:

Ron Petocz (Ph.D. candidate) Fusulinid biostratigraphy of Permian rocks in the Upper Delta River area, Alaska Range.

Christopher Cameron (MS candidate) Paleomagnetism and petrology of selected volcanic rocks from the Aleutian Chain.

Jean Furst (MS candidate) Petrology of Mt. Wrangell caldera.

George Furst (MS candidate) Geology and petrology of the Fairbanks basalts.

Walter Phillips (MS candidate) Petrology and mineral deposits of the Ahtell Creek stock, Alaska.

#### SAN DIEGO ACTIVITIES

Student and faculty investigations at San Diego College are being expanded to include considerations of offshore areas adjacent to Baja California and beyond. Edwin C. Allison and an assistant were aboard the U. S. Coast and Geodetic Survey ship DAVIDSON during early October obtaining samples from the outer edge of the continental shelf. This is an initial part of a project to extend seaward the nearly completed geologic map of the northern Peninsular Ranges. A specific objective of the cruise was the study of deep, hopefully fossiliferous, terraces in structurally undisturbed areas.

A Scripps Institution of Oceanography expedition into the southwestern Pacific, the Expedition NOVA, is contributing excellent island and sea floor fossil samples for study at San Diego State College. Edwin C. Allison spent six weeks aboard the HORIZON during the summer and a SDSC student, Warren Smith, is continuing work aboard the ARGO this fall.

#### MISCELLANEOUS RAMBLINGS

An interesting bit of geophysical information from Caltech:

During the course of some earthquake-simulating tests on the new nine story Millikan library Dr. Paul C. Jennings and graduate student Julio Kuroiwa, by exciting the building with two  $\frac{1}{2}$ -horsepower vibration generators, managed to create earth tremors that were recorded more than seven miles away at Mt. Wilson. According to Dr. Jennings, "The results show that shaking a multi-story building is a particularly good way to transfer energy into the ground."

We can already see the reaction of management to requests by oil company geophysicists to allow them to shake their high-rise offices in Los Angeles in order to obtain better seismic records in the basin.

#### PERSONAL ITEMS

Standard Oil's Exploration Group at La Habra has welcomed three new hands. Harry J. King, formerly with Standard of Texas in Houston, will work on L.A. basin subsurface studies. Jim Robinson will work in Standard's Development section. Jim was recently with Cal-Oil West in Denver. Ed Hoffman adds strength to Standard's Paleontology section. Ed comes here from So-Tex Inc., Gainesville, Texas.

Harry Stommel, geophysicist, Standard Oil Company of California, has been transferred to Oildale for the Company. He was particularly active in the Bay Area Geophysical Society and they are sorry to lose him. We all wish Harry the best in his new position as Division Exploration Superintendent at Oildale.

Welcome to Dick Goss who comes to San Francisco in Harry Stommel's spot.

Spence Fine and his wife Virginia are currently enjoying their assignment in Australia with Atlantic - Richfield. They have a waterfront apartment overlooking Sydney Harbour about 20 minutes from the office. Spence reports it has been challenging and interesting to look for basins, rather than individual prospects. Travel around the Far East has been one of the highlights.

Friends of John Elliott, past Secretary, Pacific Section (1964) and most eligible bachelor, will be interested to hear he abandoned the latter status October 7, 1967 when he and Miss Jennifer Clough, a lovely Australian girl, were married in Sydney. John has been in Australia two years and has been closely involved with Esso's successes in the Gippsland Basin. Miss Clough formerly was employed in the Sydney office of the American Information Service. The newlyweds will honeymoon through parts of the Far East and Europe, planning to spend most of December in California before returning to Australia.

The British Petroleum Company of Canada Limited announced the appointment of E. W. Wellbaum as Manager, Heavy Oil for the BP Group in North America. He has also been elected President of the newly formed BP Petroleum Development North America Inc., a U.S. company engaged in Canadian heavy oil development. He is currently a Vice President of BP (North America) Ltd. located in New York City at 620 Fifth Avenue. He will continue in that post in addition to assuming his new duties which give him overall responsibility for the development of BP's interests in heavy oil in North America.

Bob Yeats, Shell, newly-elected treasurer of the Pacific Section, found himself transferred to Shell Development in Houston this summer. It must have been exceptionally hot and muggy when he arrived, because effective September 1, he accepted a position as associate professor of structural geology at Ohio University, Athens, Ohio. Bob reports that the geology department at Ohio University is young and growing, and hopes to offer the Ph.D. degree in about five years. Bob will continue to do research on the West Coast, and plans to spend next summer in western Washington.

Terry "North Slope" Donovan, Mobil, was finally forced to shave a summer's growth of beard to convince agents of the CIA that he really wasn't planning to lead a rebel band to join forces with Castro. We suspect his wife is grateful anyway.

Eugene Wollard (Texaco) has recently been transferred from Billings, Montana to Texaco's L. A. Division where he will serve as Asst. Div. Geologist.

R. A. Howe, West Coast Exploration Mgr. for Mobil Oil Corp. will shortly be transferred to Midland, Texas as General Mgr. Joseph Neely, now Exploration Mgr. of Mobil's Alaska and Northwest areas, succeeds Mr. Howe as West Coast Mgr.

Les Brockett, presently Staff Geologist for Union's International Division, will soon be transferred to Bakersfield as District Geologist to relieve Jerry Fletcher who will move to Denver as manager of Union's Minerals Exploration Branch.

Dave Hoeft, Signal, was recently welcomed to L.A. upon transfer from Houston. Dave will serve as Assistant to Signal's V.P. for Domestic Exploration.

New faces at the Mobil Country Club in Santa Fe Springs include Gene Hill and Gordon Adams, both from Oklahoma City. We understand Gene is getting his "sea-legs" in the offshore, while Gordon has reportedly been doing field work in the San Joaquin Valley. Field work?

We hear also that John Forman and Pete Hall have been doing a little week-end "moonlighting" in the waters around Santa Rosa Island. John claims they were just using Pete's boat for a pleasure trip, but we wonder?

Tom "All American" Reddin, Union, won't be doing much field work until he gets the cast off his leg. They say he was hit by a fast volley ball.

Union's International Division has recently welcomed Harold Billman, who for the past 4 years was District Geologist in Olympia, Washington. No doubt Harold is relieved now that he doesn't have to fight that Olympia traffic anymore.

The "transfer Agent" has been active at Texaco too. Joe Ernst who was Texaco's L. A. Basin geologist, is now special projects Geologist in New Orleans. Don Six, formerly Asst. Division Geologist here in L.A., is now on an assignment in New York.

Gene O'Brien has arrived from Casper, Wyoming, to take a post as geologist in Texaco's Anchorage District located in Long Beach.

Lee Weismeyer joined Texaco's L.A. Basin group at Long Beach. Lee is a recent graduate of U.S.C.

Chuck Cary (Union) was swinging hard and straight last month at Union's Annual Triton Cup Golf Tournament. Chuck walked away with top honors in a field of 119 players.

E. Robert Orwig, past-president Pacific Section AAPG, has been hospitalized at the South Coast Community Hospital, South Laguna. He looks well and is expected home in a few days.

P. A. Mundt, Area Exploration Supervisor, Mobil Oil Libya Ltd., was transferred effective July 15, 1967 to the West Coast Exploration and Producing Region as Geological Supervisor, Northwest Area.

Dr. Peter J. Smith was a visiting scientist at San Fernando Valley State College on October 23, 1967 through the Visiting Scientist Program of the American Geophysical Union. Dr. Smith is currently a NATO Fellow with the U. S. Geological Survey in Menlo Park, California. He lectured on The Intensity of the Earth's Magnetic Field in the Past.

## BIBLIOGRAPHY OF RECENT PUBLICATIONS

### ALASKA DIVISION OF MINES & MINERALS

Report 23: The geology and geochemistry of the Inmachuk River map area, Seward Peninsula, Alaska, by Gordon Herreid. 25 pages, plus map \$1.00

Geologic Report 32: Geology of an area on the upper Talkeetna River, Talkeetna Mountains quadrangle, Alaska, by A. W. Rose. 7 pages, plus 1 map \$1.00

Geochemical Report 8: Geochemical and geological investigations of Admiralty Island, Alaska, by W. H. Race & A. W. Rose. 43 pages plus 5 figures. \$1.00

### NEW ADDRESSES

#### PACIFIC SECTION, A.A.P.G.

Frank B. Carter  
24716 Cordova Drive  
Dana Point, Calif. 92629

K. C. DeLise  
625 E. St.  
Chula Vista, Calif. 92010

Robert C. Gardner  
9000 Sunset Blvd.  
Los Angeles, Calif. 90069

Orville D. Hart  
26552 Cortina  
Mission Viejo, Calif. 92675

Jack W. Oney  
6939 Camrose Drive  
Los Angeles, Calif. 90028

Kathleen Strohm  
2036 Amherst  
South Pasadena, Calif. 91030

Clyde W. Stephenson  
1192 Oceanaire  
San Luis Obispo, Calif. 93401

Robert R. Smith  
5126 Elkmont Drive  
Palos Verdes Peninsula, Calif.

John L. Harper  
300 Iris Street  
Broomfield, Colorado 80020

Charles W. Prewett  
600 Smith Drive  
Metairie, Louisiana 70005

Richard E. Rowland  
1200 Hossly St., Apt. 204  
Vicksburg, Miss. 39180

James C. Stevens  
80 South 36th B  
Boulder, Colorado 80302

Charles D. Edwards  
Camerina Petroleum Company  
905 Americana Bldg.  
Houston, Texas 77002

Harry E. Nagle  
1881 East Hillhaven  
West Brea, Calif. 92621

Robert R. Smith  
5126 Elkmont Drive  
Palos Verdes Peninsula, Calif.

Leo J. Herrera  
P. O. Box 821  
Woodland Hills, Calif.

Harold G. Billman  
Union Oil Co.  
Rm. 821  
P.O. Box 7600  
Los Angeles, Calif. 90054

Hugh H. Clark  
Baroid Div. National Lead Co.  
P.O. Box 1793  
Ventura, Calif.

Larry Brundall  
1312 Camino Manadero  
Santa Barbara, Calif. 93105

Cal J. Thompson  
5751 Carpinteria Ave.  
Carpinteria, Calif. 93013

Henry F. Dawson  
Humble Oil & Refg.  
Rt. 5, Box 474  
Bakersfield, Calif.

James L. Eymann  
2954 - 26th Street  
Sacramento, Calif. 95818

Joseph K. Morford II  
2555 Greenwich St.  
San Francisco, Calif. 94123

Jack Lee Gregory  
6399 Clemens  
Ventura, Calif. 93003

Keith Green  
Shell Oil Company  
P. O. Box 481  
Houston, Texas 77001

Glenn L. Shepherd  
Dept. of Oceanography  
University of Hawaii  
2525 Correa Road  
Honolulu, Hawaii 96822

Mahlon V. Kirk  
9472 West 65th Ave.  
Arvada, Colorado 80002

Cyril V. Bird  
c/o Humble Oil  
P. O. Box 7033  
Long Beach, Calif. 90807

Richard D. Wissing  
9129 Halifax  
Ventura, Calif. 93303

John P. Gates  
3325 Christmas Tree Lane  
Bakersfield, Calif. 93306

James E. Condreay  
c/o Humble Oil and Refining Co.  
P.O. Box 61812  
New Orleans, La. 70160

James Clifford Dawson  
Department of Geology  
University of Wisconsin  
Madison, Wis. 53706

J. Ernst  
Texaco, Inc.  
Box 60252  
New Orleans, Louisiana 70160

Donald Levandowski  
Department of Geosciences  
Purdue University  
Lafayette, Indiana 47907

Raymond Suhm  
3288 Mathis Street  
Lincoln, Nebraska 68524

Robert S. Yeats  
Dept. of Geography and Geology  
Ohio University  
Athens, Ohio 45701

Millis H. Oakes  
5314 Shasta Lane  
Corpus Christi, Texas 78415

Phillip L. Work  
744 St. Charles Avenue  
New Orleans, Louisiana 70130

Paul J. Bostick, Jr.  
200 Havenstrite Oil Bldg.  
811 West 7th Street  
Los Angeles, Calif. 90017

Ed Kiessling  
California Div. of Mines & Geol.  
107 South Broadway (Rm. 1065)  
Los Angeles, Calif. 90012

Walter A. English  
209 South Norton Avenue  
Los Angeles, California

Guy L. Hanegan  
20401 Soledad Canyon Road  
Saugus, California 91350

James O. Salveson  
Standard Oil Company  
P. O. Box 5278  
Oildale, California

Earl E. Brabb  
U. S. Geological Survey  
345 Middlefield Road  
Menlo Park, Calif. 94025

NEW MEMBERS

A. C. Austin  
U.S.G.S.  
Box 2610  
Bakersfield, Calif. 93303

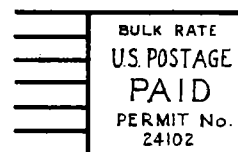
James E. Schroeder  
416 C. Fashion Park Ave.  
Orange, Calif. 92666

**PACIFIC PETROLEUM GEOLOGIST**  
**PACIFIC SECTION. A.A.P.G.**  
**P.O. BOX 17486. FOY STATION**  
**LOS ANGELES, CALIF. 90017**

Volume

Number

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LOS ANGELES, CAL 90067

# PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 21

December 1967

Number 12

### ASSOCIATION ACTIVITIES

#### LOS ANGELES BASIN BAR-B-QUE MEETINGS

The recently instituted plan to combine the monthly evening meeting with a Bar-B-Que dinner appears to be a resounding success. In the past, meetings held in downtown Los Angeles, often suffered an embarrassing lack of attendance. Whether this was due to problems of transportation, program, or inadequate facilities for the preceding social hour is difficult to say.

Whatever the reasons, attendance has improved markedly. Members who were at the last two meetings, hosted by Standard Oil Co. at their Northern Recreation Hall in La Mirada, expressed considerable enthusiasm for the opportunity to fraternize and partake of good steak (and free beer) prior to taking up the evening's business. If you haven't yet been to this new evening program, plan to attend next month.

We think you'll enjoy it.

#### November 21 Meeting

Relaxing after satisfying the "inner man", L. A. Basin Geologists, Geophysicists and Paleontologists sat back and enjoyed a very fine presentation by Jack R. Severns, Schlumberger Well Services.

Jack discussed several new types of computed logs which, through the use of digital recording and computer programs now available, show graphically the results of porosity and oil/water saturation calculations for any given well interval. Formerly, these computations had to be performed by experienced log interpreters.

In addition, Jack described Schlumberger's new DART II system (Digital Automatic Recording Transmission). This system permits logs recorded at a well to be transmitted hundreds or even thousands of miles, via wire or microwave, to corporate or regional headquarters where executive decisions regarding further well site activities may be made. An integral part of the DART system is located in Houston, Texas where tapes may be reproduced and data utilized by computer to print out graphic presentations of porosity, water and hydrocarbon factors.

#### PACIFIC SECTION DIRECTORY

We will need your help to make sure that everyone currently in good standing as a member of the Pacific Section AAPG, SEPM, or SEG, is included with correct entry in the revised directory which is now under study by Pete Gardett.

Soon each of you will be requested to assist in making certain that your listing is correct.

We hope to come up with a less expensive filler, with correct identification, and with a publication that can be more readily revised. Your cooperation will be vital if this effort is to succeed.

Pete says that he is aiming toward having the directory available for purchase at the 1968 Pacific Section AAPG Convention in Bakersfield.

#### CHRISTMAS DANCE

The Annual AAPG-SEG-SEPM Pacific Section Holiday Dinner Dance will be held at the La Canada Country Club on December 15.

Festivities begin at 7:30 P.M. commencing with cocktails and hors d'oeuvres sponsored by the service companies.

Dinner at 8:30 P.M. includes a choice of Prime Rib of Beef or Fresh Florida Pompano stuffed with crab meat.

Dancing following dinner will be to the Carroll Wax Orchestra until 1:00 A.M. The cost is only \$16.00 per couple. Seating will be at tables for 10.

Elegant and festive decorations are being planned to particularly please the ladies.

Reservations are to be sent to W. W. Wornardt, P. O. Box 76, Brea, California.

#### SAN JOAQUIN GEOLOGICAL SOCIETY

##### Calendar

Dec. 12      Dinner Meeting--6:30 P.M. @ American Legion Hall. "Exploration in Metropolitan Los Angeles" by Eugene (Bud) Reid, Occidental Petroleum Corp.

##### New Officer

Willis R. (Sam) Brown, Buttes Gas & Oil, Bakersfield, has been appointed Treasurer following the loss of Orrin Wangness.

**EXECUTIVE COMMITTEE, PACIFIC SECTION  
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS**

Ted L. Bear	President
Richard L. Hester	Vice President
Hal Fothergill	Secretary
Glen W. Specht	Treasurer
Robert R. Knapp	Past President
Dan E. Duggan	Editor
Jack Kappeler	San Joaquin Delegate
Gordon B. Oakeshott	Northern Calif. Delegate
James M. Saunders	Coastal Delegate

**ASSOCIATED SOCIETIES**

Sacramento Petroleum Association  
Northwest Geological Society  
Alaska Geological Society

**PACIFIC PETROLEUM GEOLOGIST**

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Orders for Pacific Section publications and prior years' issues of the PPG should be addressed to: Pacific Section Publications, 3132 18th Street, Bakersfield, Calif.

EDITOR	Dan E. Duggan
Assistant Editors	Bill T. Bradford Frederik E. Dekker
Selected Bibliography	Lucy Birdsall

**CORRESPONDENTS**

Alaska	Dick Atchison
Coast	Harold Sugden
Los Angeles	Carroll L. Hoyt
Northwest	Unnamed
Sacramento	Lowell Garrison
San Francisco	Gordon Oakeshott
San Joaquin	Ernie Espenschied
Membership Secretary	Pat Metcalf

Recent Activities

Although the attendance at the September Ladies Night meeting suffered badly from postal misconnections, which some malcontents are protesting as an escalation of the administration's policy of withholding the news to deliberate and pre-meditated withholding of the mails, the October dinner meeting featured the usual mob of boisterous demonstrators.

Meeting the mob head-on was government representative Robert Paschall as principle property appraiser for the State Board of Equalization. Bob gave an enlightening talk entitled "Evaluation of Oil and Gas Properties for Property Tax Purposes".

Expanding upon his duties as San Joaquin Delegate to the Pacific Section AAPG, Jack Kappeler, Getty Oil Co., is heading up the "Lost Souls Department." As Membership Chairman for the San Joaquin Geological Society Jack will be pleased to pass along membership information to all interested parties. At the risk of appearing somewhat cloistered we are printing this in the PPG hoping that the members will advise non-members as to whom they should contact.

**COAST GEOLOGICAL SOCIETY**

The Coast Society Annual Dinner Dance will be held in Ventura on Dec. 8, 1967, at the Ventura Women's Center, 3451 Foothill Road. The Champagne cocktail hour begins at 7 P.M. and a prime rib dinner will be served at 8 P.M. This will be followed by dancing to music by Joe Dominguez till 1 A.M. For reservations contact: Jack Durrie, Getty Oil Co., Ventura, Phone 643-2154

**CORRECTION TO AAPG-SEPM 1967 GUIDEBOOK ARTICLE:  
"UPPER CRETACEOUS ROCKS SOUTHWEST OF HOLLISTER"**

After this paper was sent in to the guidebook editors in August, further work was done on the sediments which failed to support the earlier conclusions that the beds described were definitely of Upper Cretaceous age.

In the initial stage of the work, Upper Cretaceous foraminifera were found in a single sample of gray, silty claystone. Other samples of claystone similar to this were examined but with negative results. A few arenaceous species were found in one sample, but with none of them suggesting an Upper Cretaceous age. A short time later a second set of samples were sent in and examined as before, but no foraminifera were found. This created a serious doubt as to the Upper Cretaceous age of the beds. For the purpose of making a further check on the then-questionable age of the beds, the two authors arranged to meet and go over the section together. This was done on October 10, 1967. The bedded but massive claystones and sands were found as Mr. Rogers describes them. The only fossils found with a hand lens examination were an abundance of finely comminuted, carbonaceous plant remains. Seven samples were collected of the massive, blocky claystone over a stratigraphic interval of approximately 600 feet, with some of the samples coming from the same locality which had yielded the Upper Cretaceous foraminifera originally. These samples were returned to the laboratory and carefully washed and examined. No foraminifera indicative of the Upper Cretaceous were found, nor were there any *Inoceramus* prisms or other shell fragments suggestive of that age. A few small, crushed arenaceous species of foraminifera were found like those from the earlier collection; but these tended to negate rather than support the Cretaceous age possibility.

In view of these later findings, and in consideration of the unconsolidated condition of the clays, silts, and sandstones, and the relative ease with which they disintegrate in water, we came to the conclusion that the beds were probably younger than Upper Cretaceous and possibly as recent as Pliocene. The authors also concluded that since no further Upper Cretaceous foraminifera were found, those from the earlier sample were most likely re-worked.

At the time the second set of samples was sent to the laboratory by Mr. Rogers, duplicates were sent to Dr. William R. Evitt of Stanford University for a pollen check. Two days before the field trip, Mr. Rogers received word by telephone from Dr. Evitt that he had found a number of pollen grains of Miocene or younger age and a single possibly Upper Cretaceous grain. This independent evidence of the age thus was in support of our latest conclusions that the age of the formation was probably late Tertiary rather than Upper Cretaceous.

In order to forestall a possible error in the age assignment of these beds under discussion, we are submitting these later findings with the suggestion that "Upper Cretaceous" in the title and text be deleted or marked with a question mark.

More work on these beds is contemplated in the hope of finding further and more convincing proof of their age.

C.C. Church, Consulting Paleontologist

T.H. Rogers, Geologist - California  
Division of Mines and Geology

#### A LETTER TO THE EDITOR

As the Geologic Names Editor for the California Division of Mines and Geology, I have read Sullwold's critique and the AAPG Pacific Section subcommittee's response with great interest.

While it is true the Pacific Section AAPG correlation sections are of considerable stratigraphic value, they do leave something to be desired with respect to stratigraphic nomenclature. I have no wish to criticize unduly the subsurface terminology used, but I feel that petroleum geologists (and paleontologists) can apply the Code of Stratigraphic Nomenclature more rigorously in their publications than they have previously. The defensive attitude of the subcommittee that close adherence to the Code would probably result in the introduction of unsatisfactory terms seems somewhat defeatist. After all, members of the subcommittee and most petroleum geologists are members of the AAPG. That society is not only well represented on the American Commission of Stratigraphic Nomenclature, but it serves also as the official publication medium of the ACSN. Further, the AAPG long since officially adopted the 1961 Code.

For these reasons alone I believe that a greater effort can be made to apply the Code to subsurface stratigraphic units (no matter how complex the stratigraphy may be). Perhaps the first and most important step in making the Code more useful in subsurface work is for geologists to distinguish between formal and informal terminology (see Code Articles 10, 10g, 24b, 32, 38a). The importance of this distinction cannot be over-emphasized because much of the Code and how it is interpreted is based on the recognition of both formal and informal terminology. The purpose of establishing certain requirements for formal stratigraphic units (vs. no requirements for informal units) is clear: Formal units should be adequately defined in a scientific publication as to boundaries and characteristics within a type area and a type section (or well) designated. This enables other workers to correlate or otherwise compare related

strata and, if necessary, examine the type section or area first hand (or the logs and samples of a type section of a well in the case of a subsurface unit.)

Informal designations, on the other hand, have no rules for their establishment, but are merely convenient ways to identify certain stratigraphic units. Informal units largely apply to 1) units that are commonly of local interest and often have an economic connotation (e.g. coal seams, oil sands, marker horizons, etc.) or 2) stratigraphic units that are not adequately (formally) described in the published literature.

The techniques for distinguishing between formal and informal designations are few and simple. Most important is the use of capital letters for the first letter of each unit designation (e.g. Markley Formation, Domingine Sandstone). Informal units can be distinguished by lower case letters (e.g. Peterson sand, H & T shale, H & T sand, Salinas River gravel) or by sentence construction (gravel of Salinas River, sands of the Meganos Formation, granite of Arch Rock, etc.). These techniques are employed in most scientific publications (USGS, most state geologic surveys and many professional journals).

Based on the work of Edmondson's subcommittee (footnotes of AAPG Pacific Section Correlation Sections 15 and 16; and "Response" in PPG, October 1967, p. 2-3) and the "critique" of Harold Sullwold (PPG, August-September 1967, p. 2-3), it is quite clear that a great many informal units have been given apparent formal status -- viz. K-1 Sand, H & T Shale, H & T Sand, Winters Sand and Shale, Upper Lathrop Sand, etc. Because of this, it is very difficult to ascertain which subsurface units are formal.

There are several other points that could be raised concerning specific nomenclature problems, but I do not wish to dilute the importance of the formal-informal concept. In my opinion that concept is basic to the interpretation of the Code of Stratigraphic Nomenclature and the stratigraphic practices and principles it recommends.

Earl W. Hart  
Geologist

UNIVERSITY OF CALIFORNIA, RIVERSIDE  
NEWS

Professor George Tunell retired this past year and he will be in residence as Professor Emeritus at the Santa Barbara campus of the University. During the past two years five new staff members have been added. Lewis Cohen transferred to Riverside from the Berkeley campus and will take over Professor Tunell's position in mineralogy and related areas. Michael O. Woodburne, recently graduated from U.C. Berkeley, is offering courses in vertebrate paleontology and stratigraphy. Dr. Tsvi Meidav is filling a newly created position in Geophysics. Dr. Sebastian Bell, whose principal interest is in structural geology, is replacing Dr. Gordon Eaton who is now with the Geological Survey in Denver. Dr. Robert Rex, formerly with Chevron Research, is filling a new position. Dr. Rex specializes in sedimentary geochemistry.

New facilities in the department include flumes for a newly organized sedimentation laboratory and a new display museum emphasizing the geology of southern California that has been authorized by the University. This museum is now partially occupied and they hope to have the initial displays completed during this academic year.

#### CALIFORNIA STATE COLLEGE AT LOS ANGELES NEWS

The Geology Department has 7 full time faculty members and 2 additional positions that are filled by specialists on a part time basis to teach such courses as Engineering Geology and Geophysics. The staff is well balanced between "hard-rock" and "soft-rock" areas of teaching and research. The faculty's instructional effort is devoted solely to undergraduate teaching with the idea of producing well qualified geologists with adequate training in mathematics, physics, chemistry and geology. It is their desire that graduates be capable of going on to graduate school or to begin professional careers if they choose not to go to graduate school.

The Department instituted this year for the first time, a State-supported summer field camp. The new summer field program is part of the year around instructional program and conversion to the quarter system that is taking place on the campus. The first half of the 10-week summer camp was under the direction of Dr. James F. Richmond and the camp worked in the "hard-rock" terrain of the Sugar Loaf Mountain area of the San Bernardino Mountains. The second half of the summer camp was under the direction of Dr. Delos Tucker and the camp worked in the "soft-rock" terrain of the Southern Front Range of Colorado.

#### FACULTY NEWS

During the summer of 1966 Dr. James N. Gundersen was one of the participants in the International Field Institute to Brazil sponsored by the A.G.I. and N.S.F. while Dr. Ivan P. Colburn was one of the participants in a similar Institute to Japan this past summer.

Dr. Martin Stout has returned to the Department this Fall after having spent last year on an N.S.F. Science Faculty Fellowship studying Recent basalts with Dr. Thoraninssan in Iceland and Permian basalts with Dr. Barth in Norway.

Dr. Perry Ehlig, the new department chairman, gave two interesting papers this past year that dealt with his research work on the San Gabriel Mountains. The first one entitled, "Displacements along the San Gabriel Fault, San Gabriel Mountains, Southern California", was given at the national meeting of the G.S.A. in San Francisco and the second one entitled, "Causes of Distribution of the Pelona, Orocopia and Rand Schists along the San Andreas and Garlock Faults" was given at the San Andreas Fault conference at Stanford this past September.

Dr. Alan Colville was at Virginia Polytechnic Institute this past summer on an N.S.F. Science Faculty Fellowship working primarily on the structural details of plagioclase feldspars.

Dr. Ivan P. Colburn is continuing his research activities with support from N.S.F. on the basin analysis of the Upper Cretaceous turbidites in California.

Dr. James N. Gundersen has returned to his teaching and research activities after having served as chairman from Fall 1964 to Fall 1967. Dr. Gundersen is now resuming his N.S.F.-supported research on the metamorphosed taconites (low grade iron-ores) of the Eastern Mesabi district. He has been granted a Research and Creative Leave for the Winter quarter by the college to help provide time for these studies.

Professor Robert Meade continues his research work on the molluscan paleoecology of the marine Plio-Pleistocene beds of Southern California. Professor Meade reported on this work in a paper entitled "Nature of the Santa Barbara Zone" at the G.S.A. meeting in San Francisco and another paper entitled "The Paleocology of the Santa Barbara Zone Pliocene of Southern California" at the A.A.P.G. national meeting in Los Angeles.

Professor James F. Richmond is continuing to pursue his interests in statistical analysis of geological problems and the chemistry of quartz monzonites in Southern California.

#### STUDENT NEWS

This Fall the Department counts 40 students who are majoring in Geology. During the past year (1966-67) we graduated 2 students with Bachelor of Arts degrees and 12 students with Bachelor of Science degrees. Of these graduates about half of them elected to continue their studies in geology at such institutions as Stanford, U.C.R., U.C.L.A. and U.S.C. Most of the remaining graduates were drafted. Some who were not drafted were employed as geologists by such organizations as the California Division of Water Resources and the Metropolitan Water District. A few graduates have chosen not to continue in the field of geology and have found employment outside of the profession.

#### CALIFORNIA ACADEMY OF SCIENCES

At the annual meeting of the Fellows of the California Academy of Sciences in Golden Gate Park, San Francisco, on November 1, Dr. G Dallas Hanna was presented with the Academy's silver medal for excellence in science, after 48 years continuous service to the Academy.

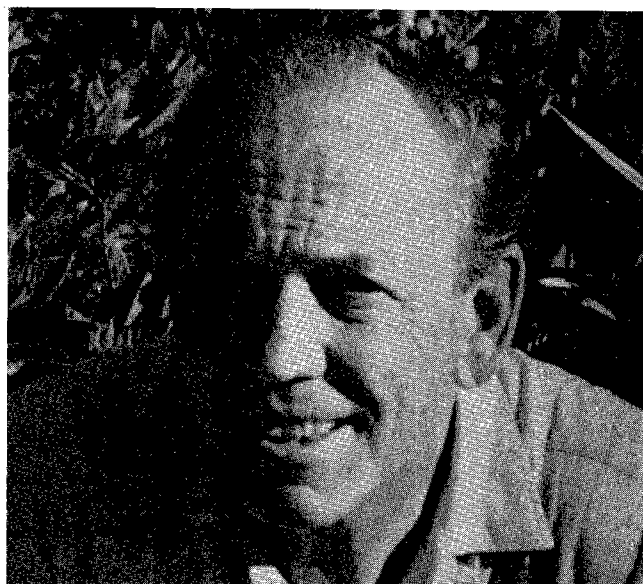
"Doc", now in his 81st year, is well known to petroleum geologists for his long service to the industry in paleontology -- both micro-and megafossils -- and particularly for pioneering research on diatoms. He is a long-time member of SEPM and has been a member of AAPG since 1924. His contributions to science have been many and varied, in the field and in the laboratory, and have taken him all over the world. His latest expedition was to Alaska where he studied biological effects of the Alaskan earthquake of 1964; he is planning another similar expedition to Alaska next summer.

Those who know Doc best have come to marvel at his versatility. He is a highly-skilled precision machinist. He personally designed the optics and ground many of the lenses for the Academy's great planetarium. In the past few years he has developed a new color-printing process which is used by the Academy in the beautiful color photos printed regularly in Pacific Discovery.

Doc's wife, Margaret Hughes Hanna, is his partner in many activities and on many trips. She is also a long-time member of AAPG and is known widely in the profession for her meticulous illustrations of the foraminifera, including those in the Cushman volumes.

#### CALIFORNIA PETROLEUM GEOLOGIST A BIOGRAPHY

Editor's Note: It is hoped that in the near future we will be able to present biographical profiles of some of the more well-known and successful California petroleum geologists. Unfortunately, the first of the proposed series must necessarily take the form of an obituary.



GRANT WHITE CORBY

Friends of Grant W. Corby were saddened to learn of his death on September 28th after a period of intermittent ill health following a mild stroke in June. He was 69.

The son of L. E. and Blanche Kenney Corby, Grant was a graduate of Stanford University, where he majored in geology, was president of his senior class and instructor in geology during his year of graduate study. As a geologist in the Coast Ranges he worked first for the Coast Land Company, next for the old Marland Oil Company under R. D. Reed. He was subsequently associated with Beal and Heller, the West Coast Royalty Co., the Belmont Investment Co., and was for a time acting Secretary of the Kettleman North Dome Association. In 1935 he became a consultant en-

gaged in interrelating geophysics and geology, first as California representative of Western Geophysical Company, then as a vice-president of United Geophysical Company and of Geophysical Engineering Corporation. He was for some time mayor of the Santa Anita race-track community of Arcadia, California, following which he went to the Philippines as geologist for the director for the National Development Company's Petroleum Survey of the Philippines. Pearl Harbor found him engaged in a petroleum reserve drilling program there for the Navy, and he was interned in Manila by the invaders. With William Chittick at the Santo Tomas gate he performed immeasurable service to the interned community, to army intelligence, the military prisoners at Cabanatuan, the guerrilla movement, and his country generally to an extent hardly possible of full appreciation here at home. After a year and a half of this hair-raising daily strain and suspense, which permanently undermined his health, he was transferred in the hold of a cattle-boat to Shanghai whence he was eventually repatriated on the Gripsholm. Following the war and service here with OSS he returned to the Philippines as consultant for the F.E.O.D. Company, and though the collections and most of the data of the Petroleum Survey had been destroyed during the hostilities, from this post he was able to salvage almost half of the Survey's reconnaissance Report for the record. Following its publication (as Rep. Phil., Dept. Nat. Res. Technical Bulletin No. 21, Manila, 1951) he returned to the States, to help organize the Williston Syndicate in Billings, Montana, and to serve for several years as president of Merchants Petroleum Corporation in California and also engaged in gas field development and pipe line construction in Ohio and West Virginia. At the time of his death he was geologist and vice-president of the California-Time Petroleum Company of Wichita, Kansas, in Beverly Hills, California.

During the disastrous BelAir fire of a few years ago Grant acquired some fame through saving his home, one of only two in his block thus preserved, through a courageous and sleepless forty-eight-hour vigil with buckets and hose atop the roof. Less spectacular but just as ingenious was the long-term exercise of his hobby of constructing and operating short-wave radio transmitters and receivers, especially valuable during far-flung petroleum exploration in the otherwise isolated tropical boondocks, and which at one time served to re-establish connections between GHQ and the front in the early weeks of World War II. Corby was a direct lineal descendant of Oliver Cromwell, and though by temperament he hardly shared the puritanical rigors of his illustrious forebear he did seemingly acquire some of The Protector's gifts for organization, which in him were outstanding. In addition to other club, lodge, and association memberships he was a member of Sigma Xi, the American Association of Petroleum Geologists, and of Alpha Tau Omega fraternity. Corby is survived by his wife, Frances Meade Corby, a daughter Annette (Mrs. Gasaway) of Newport Beach, California, two sons, Grant Jr. of Minden, Nevada, and John Meade Corby of West Los Angeles, California, and one grandchild.

Respectfully submitted  
Robert M. Kleinpell

## IN MEMORIAM

The San Joaquin Geological Society and the community of Bakersfield lost a fine geologist and friend with the recent death of Orrin Wangness, local consultant. We extend our deepest sympathies to his family. The Society has established an "Orrin Wangness Memorial Fund." Friends wishing to donate to the fund should mark the contribution "Orrin Wangness Memorial c/o San Joaquin Geological Society", and mail to S. J. Geological Society, P. O. Box 1056, Bakersfield, California 93302.

The friends of George La Perle wish to express their sympathy to George and his family, for the tragic accident which claimed the life of his 8 year old son, John Chester La Perle. John was struck by an auto while riding his bicycle on the Stockdale Hiway near Bakersfield.

W. L. Cozzens, Consulting Civil and Photo Engineer, passed away on July 31. He had generously assisted local geologists with the interpretation of aerial photographs since the 1930's.

## MISCELLANEOUS RAMBLINGS

### OBSS and AQUAPULSE

Two new developments of interest to petroleum geologists have come from Western Geophysical, Los Angeles. These are the Ocean Bottom Scanning Sonar (OBSS) - SONARGRAM service and the AQUAPULSE marine seismic source. OBSS was developed by Westinghouse and AQUAPULSE by Esso Production Research. OBSS is a photogeology technique for underwater use and will be of considerable aid to offshore exploration for petroleum and mining, and to the engineering industries. AQUAPULSE has a potential non-explosive energy source and is virtually free of "bubble pulse".

AAPC. Bull Sept. 1967

### COLLOQUIUM

The third colloquium of computer applications in the Earth Sciences will be held December 14-15 at the University of Kansas. For details contact:

Richard F. Treece  
University Extension  
University of Kansas  
Lawrence, Kansas 66044

## NURSERY NEWS

"Since you girls always read this column, don't let your husband forget the Christmas Dance."

## PERSONAL ITEMS

Recent additions to the Texaco staff in Bakersfield include Division Stratigrapher Jack Mills from Denver and Frank Alexander, geologist from Billings.

Dave Martin, Occidental, finally shook the sand out of his shoes after a summer-long foreign jaunt and headed back home to Bakersfield.

Recent changes at Standard in Oildale include:

Former Northern Division Superintendant Al Martini transferred to the Corporation Staff to take a more worldly view of things. Ex-Division Geologist John Silcox packed his books "Classification of Basalts" and "Training of Sled Dogs" to depart for Seattle where he will be Superintendant of the Pacific Northwest Division. New faces include Harry Stommel as Division Superintendant, Jim Salvason as Division Geologist, and geologists Ed Haines, Stan Boycourt, Paul Wagner, Bob Reed, and Dave Engstrom.

Kathleen Strohm announces she has moved to Anchorage and has taken a job with Union Oil as a technical assistant.

Our correspondent at Atlantic-Richfield advises that "the controversy over Planktonics and Benthonics is still raging". I wonder where Sentour De Boue stands on this issue?

Bruce Trimble - (Atlantic-Richfield) has moved from Atlantic's special projects Mineral studies group in Anaheim to the Long Beach exploration office.

Frank B. Carter expects to leave the South Coast Community Hospital at Laguna about Nov. 24 and move into his new residence in Leisure World, Laguna Hills where he will continue his convalescence. Frank would be delighted to receive visits or phone calls from his many friends. Address: 2011 A Villa Mariposa, Laguna Hills; 714-830-1356.

The Rodney Colvin household is back on an even keel again now that Midge Colvin has returned home from the hospital. In addition to the relief of having his wife well and back on her feet, Rod reports no remorse at giving up his life as a bachelor.

The Swedes and Norwegians from Minnesota and Wisconsin won top honors at the Annual Standard Oil (La Habra) Exploration and Land Golf Tourney held October 21st at the Cresta Verde Country Club in Corona. Low net honors were won by John Jacobson (61) and Bob Erickson (62). Bob Lindblom had 77 to win low gross. The Good Sportsmanship award was won by Billy K. Reed for his determination in finishing with 157 strokes. Dick Jennings and Ray Perry were the chairmen of the event.

Bowling leagues have started again and captains Billy K. Reed and Greg Calkins (Std., La Habra) are busy organizing players for their respective leagues. Bob McCrae was traded to Calkins taxi squad for the current season.

John Forman (Mobil) will attend a two week management "charm" course at Princeton University. Following this he will vacation in Bermuda with his wife Dorchon. Who says geologists don't live the "good life"?

What Mobil geologist recently borrowed one woman's 68 model car, ran into another woman's car and injured his female passenger? --None of the ladies involved was his wife!

Delay rear-ended! John Delay (Mobil) was delayed more than somewhat last week while waiting for a stop signal. Seems another motorist wanted to test Volkswagon's claim that their bodies are stronger 8 ways. Would you believe seven?

E. R. Orwig, past President, Pacific Section AAPG has returned to work after convalescing for several weeks at South Coast Community Hospital.--Stay out this time Bob!

#### NEW ADDRESS

Kathleen Strohm  
Union Oil Co. of California  
2805 Denali Street  
Anchorage, Alaska 99503

#### PUBLICATIONS

Pacific Section, A.A.P.G. & Affiliated Societies

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- CS 15. Sacramento Valley-Central  
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Caribou Creek (AGS) 1964. \$2.25
- GB 5. Geology of Southeastern San Joaquin  
Valley, California - Kern River to  
Grapevine Canyon (AAPG) 1965. \$4.00
- GB 8. A Tour of the Coastal Oil Fields of  
the Los Angeles Basin in and Adjacent  
to San Pedro Bay, California  
(AAPG-SEG-SEPM) 1966. \$3.50

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- CS 9. San Joaquin Valley-Central (1 sheet)  
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N 1958. From T4N/R3E to T18S/R20E.
- CS 10. San Joaquin Valley-Central (1 sheet)  
S 1958. From T18S/R20E to T10N/R19W.
- CS 11. San Joaquin Valley-West Side (1 sheet)  
1959. From T19S/R15E to T8N/R23W.
- CS 12. Santa Maria Basin (1 sheet) 1959  
From T11N/R34W to T5N/R34W.

CS 13. Sacramento Valley-North-South (1 sheet)  
From T29N/R2W to T3N/R2E.

CS 14. Los Angeles Basin (1 sheet) 1962.  
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JOURNAL OF SEDIMENTARY PETROLOGY, vol. 37, no. 3  
September 1967

Continental Shelf sediment, northwestern United  
States, by M. G. Gross, D. A. McManus, and  
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Dolomite from the Continental Slope off Southern California, by J. W. Pierce and William G. Melson.

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"Put a little fun in your wife -- come to the Christmas Dance."

University of California, Berkeley

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Thursday, December 7, 1967

SPEAKER

Mr. Bruce Luyendyk,  
Scripps Institution of  
Oceanography

TOPIC

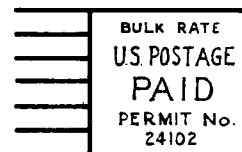
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Thursday, December 7, 1967  
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