

# PACIFIC PETROLEUM GEOLOGIST

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

Volume 19

January, 1965

Number 1

### ASSOCIATION ACTIVITIES

#### Coast Geological Society

The monthly meeting of the Coast Geological Society was held at the Jet Room in Ventura on December 8th.

Mr. John G. Vedder with the U.S.G.S. at Menlo Park was the evening's guest speaker. His subject was the "Biostratigraphy of the Southeastern Caliente Range, California". This very interesting talk was given in the form of a progress report on this area of continental Cenozoic deposition. Stress was laid on the general geology and the presentation of faunal succession. The lecture was arranged around a number of Kodachrome slides and detailed sections of the area. Of particular interest was the stratigraphic diagrams of Miocene and Pliocene rocks in the Eastern Caliente Range which used as a datum a series of absolute time line basalts known as the Main and Triple Basalts. Mappable units and faunal change were used as a base for inferred time lines. The most significant of Mr. Vedder's slides was his Faunal Division and Correlation in the Caliente Range which presented the correlation of Forams, Mollusks, and Mammals in the area. This slide was also hung on the absolute basalt time lines. Unfortunately, the Basalts are altered too badly for dating by isotopes. Mr. Vedder also covered the stratigraphic ranges of selected species in the Cuyama Valley area. He pointed out that use of fossils in the Miocene of this area should be based upon faunal groups rather than upon individuals as has been the practice in the past. Many fossils were shown to have a much greater range than was previously believed. Mr. Vedder suggested that the Cuyama Valley be set up as a standard for California molluscan faunas because of the relatively complete sections exposed in this area. The talk was well organized and was greatly enjoyed by all.

#### STANFORD UNIVERSITY NEWS

Richard H. Jahns will become dean of the School of Earth Sciences on July 1, 1965. Dr. Jahns is well known as a geologist and an administrator, and confidently may be expected to continue the high standard of leadership provided by Charles Park, Jr.

Jahns' career has touched many facets of geology. He is known for work on pegmatite deposits, in structural and engineering geology, glacial geology, igneous and metamorphic petrology, and regional geology of Southern California. A native of Los Angeles, he received B.S. and Ph.D. degrees from California Institute of Technology, and an M.S. degree from Northwestern. Prior to 1946 he was associated with the United States Geological Survey. From 1946 to 1960 he was on the teaching staff at Cal Tech. In 1960 he was appointed chairman of the

Division of Earth Sciences at Pennsylvania State University and in 1962 he became dean of the College of Mineral Industries at Penn State. He has worked actively with the American Geological Institute's Geostudy program, which has conducted a long-range investigation of undergraduate education in geology in America.

He is the author and coauthor of 11 monographs and major reports published by the U.S.G.S., New Mexico Bureau of Mines and Mineral Resources, Arizona Bureau of Mines, California Division of Mines, and Economic Geology Publishing Company. He was the editor of, and contributor to, the monograph on the geology of Southern California, published as Bulletin 170 of the California Division of Mines. He is coauthor of a textbook on petrology which is in final stages of preparation. He is assistant editor of Economic Geology, and an associate editor of American Mineralogist. In all he is author or coauthor of 80 scientific papers and economic reports published in scientific journals.

Charles F. Park, Jr., will conclude 15 years as Dean of the School of Earth Sciences in June, 1965. He will continue active service at Stanford as Donald Steel Professor of Geology, a chair he has held since 1961. Dean Park's administration has been marked by many changes. Notables include expansion of the faculty, completion of new geophysics and petroleum engineering buildings, establishment of an Earth Sciences building fund which currently contains in excess of a half million dollars, and growth of the Earth Sciences endowment from approximately \$225,000 to \$2,800,000 during his tenure as dean.

#### Stanford Summer Geology

Nineteen students accompanied Professor William Dickinson on the Stanford Geological Survey. Professor Paul Reitan joined the group for the second half of the field session, which dealt with igneous and metamorphic geology. Additional instruction was provided by National Science Foundation Fellows Richard Ojakangas, Peter Stauffer, Donald Lowe and Roger Ashley. Camp, for the first half of the session, was established in mid-June at Pine Mountain Inn on Highway 33 between Ojai and Maricopa, California. Here the work included mapping of (1) major local facies changes in the Coldwater, Vaqueros, and Monterey Formations toward the headwater of Sespe Creek, (2) study of pattern of fan-like current direction indicators provided by pebble imbrication in conglomerates in the lower Sespe Formation, (3) investigation of possible commercial gypsum and phosphate deposits in the Santa Margarita Formation on the south slopes of Pine Mountain, and (4) examination of facies of the Matilija Sandstone on the north side of Pine Mountain, where about 10 miles of left lateral strike-slip movement on the Big Pine Fault has been proposed by Tom Dibblee, '36.

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Next Deadline - January 28, 1965

Camp for the second half was established in mid-July at Topaz Lake on U.S. 395 south of Carson City, Nevada. Working at elevations of 5,000 to 10,000 feet around Antelope Valley, the survey traced metamorphosed Mesozoic formations in the Pine Nut Range, dealing with the granitic plutons that cut the formations and with Tertiary volcanic rocks that overlie the older rocks. Discovery of high-level gravels and erratics in the northern Sweetwater Range late in the season provides evidence for future geomorphological interpretations.

Two mechanical innovations were introduced: (1) The first is a device constructed by students Pete Stauffer and Dick Ojakangas for rapid, accurate azimuth measurements of directional current lineations. This device is used to measure the angle in the plane of bedding between the strike and the lineation; (2) The second is a portable 12-inch rock saw driven by a small, noisy gasoline motor, and a field rock staining kit that together permit semiquantitative petrographic evaluations to be made in the field. Using techniques developed by Technician Ruperto Laniz, it is possible to differentially stain K-feldspar and plagioclase without affecting quartz. This may be done easily under camp conditions using a small number of previously prepared solutions and reagents. On sawed surfaces, K-feldspar stains yellow, plagioclase turns a shade of pink that is governed largely by its lime content, and quartz stays colorless. The textural details are faithfully displayed to the extent that even granophyric intergrowths can be examined with a hand lens.

Professor C. D. Campbell, petrologist, is in Europe this academic year on sabbatical leave. He is studying some of the areas which first led to the formulation of basic concepts in the physical sciences. The course in Optical Mineralogy is being taught by Edward M. Taylor in Dr. Campbell's absence. Mr. Taylor taught last year at Oregon State University.

Professor W. Frank Scott assumed the post of Assistant to the Graduate Dean last summer, and he will now spend one-fourth time in the Geology Department, teaching advanced courses in stratigraphy and working with graduate students.

Donald L. Baars, University of Colorado, has been appointed Assistant Professor effective September 1965. He will teach the undergraduate paleontology and stratigraphy courses formerly taught by Dr. Scott, and he will also teach and do research work in sedimentary petrology and sedimentation.

During the 1964-65 school year Dr. Edward Jestes has held a one-year appointment to teach a physical geology course usually taught by Dr. Campbell. Dr. Jestes was formerly at the University of Hawaii.

Dr. Yvonne Herman Rosenberg, who recently was granted the Ph.D. degree from the University of Paris, has been appointed Collaborator in Geology and will continue her work on the paleontology of recent deep-sea sediments.

The department was host to Arthur W. Green, Jr., Visiting Lecturer in Geophysics of the A.G.U., in December. Mr. Green gave three lectures on recent advances in geophysics. Early in 1965 the department will sponsor several lectures by a visiting scientist under the program of the American Geological Institute.

Enrollment of majors in geology has continued to increase during the year. We now have 60 major students, 23 of whom are doing graduate work. Space is at a premium, and fortunately the department has been allotted additional room, effective in the spring of 1966. We will then occupy the entire building which we now share with another department.

SERVICE COMPANIES ASSURE SUCCESS OF DINNER DANCE

Twenty-six service companies assured the success of the Annual Holiday Dinner Dance by sponsoring a cocktail party to open the gala affair held in the Regency Room of the Sheraton-West Hotel on December 12. Seventy-two couples attended the semi-formal affair and imbibed the holiday cheer provided by:

B. J. Service, Inc.	Rayflex Exploration Co.
Baker Oil Tools, Inc.	Schlumberger Well Surveying Corp.
Borst and Giddens	United Geophysical Corp.
Brown Drilling Co.	Vacuum Tank Service
Cook Testing Co.	Welex Inc.
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McCullough Tool Co.	
Pacific Log Exchange	
Rapid Blue Print Co.	

FROM THE PRESIDENT

John Kilkenny, chairman of the nominating committee for 1965-66 officers of the Pacific Section, has announced the following nominees:

For President	Gordon Bell, Pete Gester
Vice-President	John Elliott, George Feister
Secretary	Lou Canut, Otto Hackel
Treasurer	John Forman, Jack Nair

It has been the policy of past nominating committees to select candidates that have been active and are interested in association affairs. The new slate is no exception to this, and we thank the committee for their excellent selections. You may have noted that two of the candidates reside in Bakersfield. We do not feel that the residence locality should be an issue. All of our activities will continue normally in the event one or both Bakersfield candidates are elected.

Our constitution provides for additional candidates, as follows . . . . . " The slate of candidates shall be announced in the Pacific Petroleum Geologist at least one month prior to the election. Additional nominations may be made by a written petition of twenty-five or more members of the Pacific Section in good standing, received by the Secretary within two weeks following the publication of the nominating committee slate of candidates."

PUBLICATIONS AVAILABLE  
PACIFIC SECTION - A.A.P.G.

Cross Sections (Price, \$2.00 each, includes mailing and handling charge.)

No.    A.A.P.G. Sections

- 1    Sacramento Valley - South (2 sheets) 1951  
North side of Sacramento Valley through Rio Vista, Thornton and Lodi Gas Fields, including Mt. Diablo-South Sacramento Correlation Chart.
- 4    Salinas Valley (1 sheet) 1952  
San Antonio River northerly to San Andreas Fault through San Ardo Field.
- 6    Sacramento Valley - North (2 sheets) 1954  
A. From T 23 N, R 1 W through T 16 N, R 1 E and  
B. Correlation Chart
- 7    Ventura Basin - Central (1 sheet) 1956  
From Santa Ynez Fault north of Ojai to Western Santa Monica Mts., through Ventura Ave. and West Montalvo Oil Fields.
8.    San Joaquin Valley - South (1 sheet) 1957  
From San Andreas Fault to Sierra Nevada Foothills, passing through Belgian Anticline, McKittrick, Elk Hills, Coles Levee, Fruitvale, Kern River and Round Mountain Fields.
- 9    Central San Joaquin Valley (1 sheet) 1957  
From San Andreas Fault to Sierra Nevada Foothills, and passing through Coalinga, Gujarral Hills and Riverdale.
- 10N    Central San Joaquin Valley (1 sheet) 1958  
From Rio Vista to Riverdale through Rio Vista, McDonald Island, Tracy, Chowchilla, Gill Ranch, Raisin City, Helm and Riverdale Fields.

- 10S    Central San Joaquin Valley (1 sheet) 1958  
From Riverdale to Tejon Ranch through Riverdale, Trico, Wasco, Rio Bravo, Greeley, Strand, Ten Section, Paloma, Wheeler Ridge, Grapevine and Tejon Ranch Fields.
  - 11    West Side San Joaquin Valley (1 sheet) 1959  
From Coalinga to Midway-Sunset and across San Andreas Fault to southeast Cuyama Valley.
  - 12    Santa Maria Basin (1 sheet) 1959  
From Lompoc to Nipomo Hills through Lompoc, Orcutt and Santa Maria Valley Fields.
  - 13    Sacramento Valley - North-South (1 sheet) 1960  
From Redbluff to Rio Vista through Beehive Bend and River Island.
  - 14    Los Angeles Basin (1 sheet) 1962  
Beverly Hills to Newport.
- No.    San Andreas Fault Cross-Sections  
(Cross-sections prepared along the entire length of the San Andreas fault in Southern California).
- 1    East-West, Pacific Ocean to Gulf of the Farallones
  - 2    East-West, Gulf of the Farallones to Bielwaski Mt.
  - 3    East-West, Bielwaski Mt. to Hollister
  - 4    East-West, Hollister to Bitterwater Valley
  - 5    East-West, Bitterwater Valley to Parkfield
  - 6    East-West, Parkfield to Soda Lake
  - 7    East-West, Soda Lake to Santiago Creek
  - 8    East-West, Santiago Creek to Sawmill Mt.
  - 9    East-West, Sawmill Mt. to Valyermo
  - 10)    East-West, Valyermo to Mexican Border
  - 11)
  - 12)
  - 13    Longitudinal Cross-Sections, Pacific Ocean to Mexican Border

Guidebook - Los Angeles and Ventura Regions (Price \$2 includes mailing and handling charge).

204 pp., maps, cross sections, stratigraphic charts and road logs supplementing the 1952 Guidebook includes excellent summaries of fields developed since that time.

Membership Directory (Price, \$5, includes mailing and handling charge). 1960-61 Membership Directory contains names, addresses, phone numbers and pictures of Pacific Coast Geologists.

All material may be purchased from:

Mr. Harry Stuvelling, Jr.  
Comet Reproduction Service  
11515 E. Washington Blvd.  
Whittier, California

And San Andreas Fault Cross Sections may be purchased from:  
Price Blueprint & Supply Co.  
1600 G Street  
Bakersfield, California

Checks for the Cross Sections, Guidebooks and Membership Directories should be made payable to the Pacific Section, A.A.P.G. and must be sent with the order when ordering by mail.

ANNOUNCEMENT

THE CORDILLERAN SECTION of the Geological Society of America will meet April 15-17 at Fresno State College, Fresno, California. Hosts will be the Department of Geology and the Geology Club.

Registration will be in McLane Hall on Thursday, April 15, and Friday morning, April 16. A registration fee of \$3.00 (\$1.00 for students) is charged for those who attend the scientific sessions and field trips.

S.E.P.M. SPECIAL PUBLICATION NO. 11

PALYNOLOGY IN OIL EXPLORATION

A Symposium presented at the Thirty-Sixth Annual Meeting of the Society of Economic Paleontologists and Mineralogists, at San Francisco, California, March, 1962. Papers arranged in two parts:

Palynology -- Principles  
Palynology -- Applied

Edited by: Aureal T. Cross -  
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16 articles, 212 pages, 6.75 x 9.5 inches

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**PERSONAL ITEMS**

Jerry Knowles (pronounced "Kah-no'-lays", where he is headed) will soon be looking over South America from a perch high in the Colombian Andes. Jerry has recently been transferred from Richfield's L.A. office to Bogota to open a regional exploration office. He will be keeping an eye on all of Latin America for Richfield. He and his Colombian wife, Isabel, expect to depart sometime in January. Jerry received quite a surprise by selling his home in Palos Verdes only ten days after putting it on the market. But he was really astounded when the buyer offered to purchase about 90 percent of his furniture, too. Isabel, needless to say, is quite excited about returning to her home town after an absence of 6 years. Jerry's parting words were these: "I should like to thank all of the news contacts who have helped me with the personals column in the PPG during my tenure and to wish my successor, Walt Scott, Richfield, Long Beach, luck in his new job." Walt says that "all the news that's fit to print" (and some that isn't) can make these pages by being 'phoned to him at GARfield 3-7921.

Signal's L.A. geophysical department has been increased by two. Ed Beal has been transferred in from London, and Joe Elliot has recently arrived from Houston.

The Henriksens - Don, Marilyn, baby-daughter Lisa Anne, and poodle Maurice, were in Long Beach just before the holidays. Don has been keeping an eye on things in Europe for Richfield. He was being transferred from Paris to London, but the London airport was fogged in. So Don and his family decided to visit the Jack Nisbets in Long Beach and then spend the holidays with Marilyn's family in Palo Alto while waiting for the weather to clear.

Not all holiday travel is so speedy, however. Neil Carroll, of Texaco, was not buying swim fins for a Christmas present--he was just getting ready for the trip to his parents' home. They live in Seattle.

Speaking of Texaco, the boys in the Long Beach office were treated to a real thrill just before Christmas - a close look at genuine 34 gravity crude coming right out of the ground. In fact, it was such a close look that they had to wade through it to get to their office. Bill Bower was just about to call out the lease hounds when a repair crew showed up to fix the leak in the pipe line. Art Cohn and Frank Goodban were heard muttering for the rest of the day, "So, that's what it looks like!"

Russ Simonson, Marathon, did some of his Christmas shopping in Kingston, Jamaica. On the way, he stopped off at the G.S.A. convention in Miami, where he ran into Stan Wissler and John Hazzard of Union, and John Crowell of UCLA. Russ reports that prices of bottled goods in Kingston are quite competitive. In spite of 85 cents a pound for drayage and those guys in blue suits at the Miami airport, he made it back with 4 gallons. He didn't specify how much of that was in original containers and how much he carried internally.

"Ike" Holaston retired from Tidewater on Dec. 31, 1964 after 42 years of faithful service. During this period, he did not miss a single day's work due to accident or illness! We would say he's in good shape to enjoy his retirement years. Ike and Marge have settled down in their new hilltop home at 129 Oak Knoll Drive, Santa Cruz, California.

Dr. Gordon Oakeshott received the Best Paper Award for the 1963-64 period from the San Joaquin Geological Society. The abstract of his informative paper entitled "The San Andreas Fault: Predominant Lateral or Vertical Displacement" appeared in the December issue of the P.P.G.

Tom O'Neill, Ward Abbott and Jerry Elkins of Shell, Bakersfield, have been beating the bushy mountains while quail hunting. They report that the birds are costing them about \$5.00 each.

**NURSERY NEWS**

John Szatai, of Signal, and his wife, Edith, announce the birth of a daughter, Anna Maria, in Dusseldorf, Germany, on September 26th. Anna Maria's fighting weight, as delivered, was reported at 7-1/2 lbs

Jack and Bonnie Pigg, Texaco, Bakersfield, a son, John Trent, arrived on December 6, 1964, weighed in at 6 lbs., 14 oz.

## CALENDAR

- January 4, 1965 - Monday Evening, 7:30 p.m., Bakersfield College, Science & Engineering Bldg., Rm 56. Biostratigraphic Seminar, "Occurrence & Significance of Marine Vertebrates at Sharktooth Hill" -Mr. Edward Mitchell, U.C.L.A.
- January 7, 1965 - Thursday Noon, Rodger Young Auditorium, Los Angeles. "Why Do We Still Have Mountains?" Dr. John S. Shelton, Chief Scientific Consultant of the A.G.I.-E.B.F.
- January 12, 1965 - Tuesday Evening, 6:30 p.m., El Tejon Hotel. San Joaquin Geological Society "Geology of Water Taxation in Kern County", Bill Horsely, Director of Water Resources, Bakersfield City.
- January 12, 1965 - Robert Yeats, Shell Geologist, will be the speaker at the monthly meeting of the Coast Geologic Society held in the Jet Room at 1994 Thompson Blvd. in Ventura. His topic will be "A Pliocene Seaknoll at South Mountain in the Ventura Basin, California". Dinner will be at 7:30 p.m.
- February 9, 1965 -Dr. T. L. Bailey of Ventura will give a talk to the Coast Geologic Society at its monthly meeting on the relationship between Engineering Geology and the Construction and Real Estate Businesses. Place to be announced.

STANFORD UNIVERSITY

- January 11, 1965 - Delineation of "Strat" Traps by Reconstruction of Paleodepositional Environments, by Dr. Daniel A. Busch Consulting Geologist, Tulsa, Okla. Rm. 320 Geology Bldg., 4:00 p.m.
- January 18, 1965 - The Geology of Antarctica, by Dr. Laurence M. Gould, Professor of Geology, University of Arizona, Tucson. Rm. 320 Geology Bldg., 4:00 p.m.
- January 19, 1965 - Exploring Antarctica - Frontier of International Science, by Dr. Laurence M. Gould, Professor of Geology, University of Arizona, Tucson. Dinkelspiel Auditorium, 7:45 p.m. (Tuesday Eve. Series Lecture).
- January 25, 1965 - The Hydroelectric Project as a Challenge to the Engineering Geologist, by Dr. Howard A. Coombs, Chairman, Department of Geology, University of Washington, Seattle. Rm. 320 Geology Bldg., 4:00 p.m.

- February 1, 1965 - Foraminifera, A Key to Marine Environments, by Dr. Orville L. Bandy, Professor of Geology, University of Southern California, Los Angeles. Room 320 Geology Bldg., 4:00 p.m.
- February 8, 1965 - Records of Crustal Movements in Southern Nevada, by Dr. Chester R. Longwell, Research Associate, Department of Geology, Stanford University, Room 320 Geology Bldg., 4:00 p.m.

BIBLIOGRAPHY  
OF RECENT PUBLICATIONSU. S. GEOLOGICAL SURVEY

- Professional Paper 438: Structural geology and volcanism of Owens Valley region, Calif. --A geophysical study, by L. C. Pakiser, M. F. Kane & W. H. Jackson. \$2.75
- Professional Paper 440-K: Data of geochemistry, sixth edition, Michael Fleischer, technical editor ---Volcanic emanations, by D. E. White & G. A. Waring. (Reprinted 1964) \$ .30
- Professional Paper 440-T: Data of geochemistry, sixth edition, Michael Fleischer, technical editor ---Nondetrital siliceous sediments, by E. R. Cressman. (Reprinted 1964) \$ .25
- Professional Paper 440-Y: Data of geochemistry, sixth edition, Michael Fleischer, technical editor --- Marine evaporites, by F. H. Stewart. (Reprinted 1964) \$ .40
- Professional Paper 501-A: Geological Survey Research 1964, Chapter A \$2.75
- Water Supply Paper 1740: Compilation of records of surface waters of Alaska, Oct. 1950 to Sept. 1960 \$1.00
- Water Supply Paper 1779-Y: A brief geologic and hydrologic reconnaissance of the Furnace Creek Wash area, Death Valley National Monument, Calif., by M. A. Pistrang and Fred Kunkel. \$ .70
- Geophysical Abstracts 215: December 1964, by J. W. Clark, D. B. Vitaliano, V. S. Neuschel and others \$ .35
- Circular 495: Phreatophyte research in the Western States, March 1959 to July 1964, by T. W. Robinson, 31 pages Free
- MAPS:
- GO 345: Geology of the Prospect Peak quadrangle, Calif., by G. A. Macdonald, \$1.00
- I-394: Geology of the Mt Hayes D-4 quadrangle, Alaska, by T. L. Pewe and G. W. Holmes \$1.50
- I-426: Geologic map of the Lucerne Valley quadrangle, San Bernardino County, Calif., by T. W. Dibblee, Jr. \$ .75

I-430: Geologic map of the Rodman Mountains quadrangle, San Bernardino County, Calif., by T. W. Dibblee, Jr. \$ .75

MF-281: Preliminary geologic map of the Merced Peak quadrangle, Calif., by D. L. Peck. \$ .50

OPEN FILED REPORTS (Inspection only):

Geologic map of the southwest quarter of the White Mountain Peak quadrangle, Mono County, Calif., by Michael F. Sheridan & Dwight F. Crowder. (1 map, scale 1:24,000).

Geologic map of the northwest quarter of the White Mountain Peak quadrangle, Mono County, Calif., by Michael F. Sheridan & Dwight F. Crowder. (1 map, scale 1:24,000).

TEI-856: Geologic map and sections of the Ammonia Tanks quadrangle, Nye County, Nevada, by E. N. Hinrichs, R. D. Krushensky, S. J. Luft, R. D. Brown, and F. S. Simons. (1 map, scale 1:24,000).

OREGON DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES  
THE ORE-BIN, vol. 26, no. 11, November 1964 -

Oil leasing on the Outer Continental Shelf adjacent to Oregon and Washington, by V. C. Newton, Jr. and C. J. Newhouse.

CALIFORNIA DIVISION OF MINES AND GEOLOGY MINERAL INFORMATION SERVICE, vol. 17, no. 12, December 1964 -

Needles sheet of the Calif. Geologic map, (scale 1:250,000) \$1.50

GEOLOGICAL SOCIETY OF AMERICA BULLETIN, vol. 75, no. 10, October 1964 -

Cenozoic stratigraphy and structure of the southern Egan Range, Nevada, by Harold E. Kellogg.

Upper Middle Cambrian stratigraphy of western Utah, by Richard A. Robinson.

Pre-Cenozoic history of Suplee-Izee district, Oregon  
Implications for geosynclinal theory, by William R. Dickinson & Laurence W. Vigrass.

GEOLOGICAL SOCIETY OF AMERICA BULLETIN, vol. 75, no. 11, November 1964 -

Phosphorus in granitic rocks of North America, by Andrew B. Vistelius & Vernon J. Hurst.

Cornucopia stock Wallowa Mountains, northeastern Oregon: Field relationships, by William H. Taubeneck.

Submarine canyons and Sagami trough, east-central Honshu, Japan, by Francis P. Shepard, Hiroshi Niino, and Theodore K. Chamberlain.

Geology of the Islas Revillagigedo, Mexico, 4.

Geology and petrography of Isla Roca Partida, by Adrian F. Richards.

Late Pleistocene history of Western Anacapa Island, California, by Jere H. Lipps.

THE JOURNAL OF GEOLOGY, vol. 72, no. 6, November 1964 -

Experimental deformation and recrystallization of quartz, by Neville L. Carter, John M. Christie, and David T. Griggs.

Experimental evidence of basal slip in quartz, by J. M. Christie, D. T. Griggs, and N. L. Carter.

Textural evidence for deposition of many western North Atlantic deep-sea sands by ocean-bottom currents rather than turbidity currents, by John F. Hubert.

Pleistocene glaciation of the northern Sierra Nevada, north of Lake Tahoe, California, by Peter W. Birkeland.

THE AMERICAN MINERALOGIST, vol. 49, no's 11-12, November-December 1964 -

Recovery of coesite and stishovite from Coconino Sandstone of Meteor Crater, Arizona, by J. J. Fahey.

Accessory minerals in some granitic rocks in California and Nevada as a function of calcium content, by Donald E. Lee and F. C. W. Dodge.

Magnesium vermiculite from the Twin Sisters Mountains Washington, by Henri E. Gaudette.

U. S. BUREAU OF MINES (For sale by the Government Printing Office, Washington, D. C.) -

Information Circular IC 8240: Selected list of Bureau of Mines publications on petroleum & natural gas, 1910-62, compiled by V. Vern Hutchinson \$ .50

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# PACIFIC PETROLEUM GEOLOGIST

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

Volume 19

February, 1965

Number 2

### ASSOCIATION ACTIVITIES

#### A.A.P.G., S.E.G., S.E.P.M. Annual Convention

The Pacific Section of the American Association of Petroleum Geologists, together with the Society of Exploration Geophysicists and the Society of Economic Paleontologists and Mineralogists, will hold their fortieth Annual Meeting at the Bakersfield Civic Auditorium in Bakersfield, California, April 1-3, 1965.

The technical program will include over 60 papers dealing with the Convention theme, "The Coordinated Search for Oil and Gas in Highly Explored Areas". A number of papers will point up recent developments of interest in the oil and gas producing areas of California. The meeting will close with a field trip and geophysical demonstration on the southeast edge of the San Joaquin Valley Saturday morning.

In addition to the outstanding technical program, activities include the joint AAPG-SEG-SEPM Annual Luncheon on Thursday with Mr. S. W. Totten of Standard Oil Company of California as the speaker. A cocktail party will be held on Thursday afternoon and the SEPM dinner on Thursday evening. The college luncheons and a general buffet lunch will be on Friday and a dinner-dance is planned for Friday evening.

Ladies activities for both days are being planned by the Petroleum Wives Association and include a tour of the Standard Oil Refinery on Thursday afternoon and a luncheon and fashion show Friday afternoon. A Hospitality Room will also be available for the ladies.

Tentative programs will be sent to the membership through the mails and, therefore, will not be duplicated in the P.P.G.

#### San Joaquin Geological Society

About 50 people attended the regular meeting of the San Joaquin Geological Society on January 4, 1965. Mr. Wm. Horsley presented a highly informative paper entitled "The Geology of Water Taxation in Kern Co."

The officers of the Society are very pleased with the good attendance. Let's keep it a lively organization.

#### ABSTRACT:

Kern County is the "type locality" for agricultural contracts with the State of California for water from the "California State Water Project" (the Feather River Project). The legislative act which created the Kern County Water Agency and the provisions of the Kern County prototype agricultural water contract plus policy decisions of the Kern County Water Agency combine to create a unique precedent-setting provision for taxation to support the costs of an imported agricultural water supply.

It is the intended policy of the Kern County Water Agency to execute contracts with its agricultural Member Units (water districts) with the provision that the member unit contractor repay 85 percent of the water facility costs; and assessments through zones of benefit on all values, including petroleum minerals,

will support 15 percent of the costs.

Zone of Benefit #1 has been defined as the San Joaquin Valley portion of Kern County overlying the main ground water basin, plus areas along the margin which utilize or might utilize water exported from the ground water basin.

Thus, the majority of the oilfields in Kern County are included in the primary zone of benefit. Assessments levied pursuant to the applicable section of the Kern County Water Agency Act must be in accordance with benefit and reflect the degree of benefit to which a zone or zones may be affected. The "benefit" to be measured pursuant to the "zone of benefit" provision is the benefit to the underground water supply.

The Kern County Water Agency and the Kern County Board of Supervisors must review annually the zone or zones of benefit and the assessment rate for each zone. This will require the annual measurement of the main San Joaquin Valley ground water basin and the sub-basins within. The measurements must account for degrees of benefit within various zones. Thus a demand is created for knowledge of geologic conditions affecting the movement of ground waters within the main San Joaquin Valley ground water basin.

Geologists are the proper persons to investigate the problem, provide the geologic knowledge and measure the ground water basin and the effects upon it caused by the importation of state water. Ground water geology becomes an extremely important and controversial subject when it comes to levying assessments dependent upon measured differences of degrees of groundwater benefit to several geographic areas. When exploration budgets are reduced in the San Joaquin Valley, petroleum companies might consider the diversion of some of their geological staff to the preparation of argument to be presented at the annual review of the zones of benefit.

With the increase in water legislation and the multiplication of water projects, opportunities are expanding for the petroleum geologist to be of service to his employer, to his community and to himself.

#### Coast Geological Society

The monthly meeting of the Coast Geological Society was held at the Jet Room in Ventura on January 12th.

The speaker for the evening was Dr. Robert S. Yeats of Shell who presented an excellent paper on "A Pliocene Seaknoll at South Mountain in the Ventura Basin, California". Dr. Yeats also presented this talk to the Los Angeles forum in October 1964, and we refer you to the abstract of the talk in the October 1964 issue of the P.P.G.

Dr. Tom Bailey's talk to the Coast Geologic Society scheduled for February 9, 1964 has been rescheduled for March. Dr. Bailey is to undergo surgery on Feb. 1st. Dr. Winterer has kindly consented to move up his talk on Submarine Geology from a Diving Saucer for the February meeting.

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Next Deadline - February 25, 1965

ALASKA GEOLOGICAL SOCIETY

To an audience of over 70 persons at the January meeting of the Alaska Geological Society, Art Piper, District Producing Superintendent for Pan American Petroleum Corporation, gave a talk and slide show of Pan American's Cook Inlet operations.

Slated for the Society's February meeting is a showing of the U.S. Navy films covering their drilling operation on the North Slope. The film will be shown at a dinner meeting February 11, 1965 at the Harbor House, with no-host cocktails at 6:30 p.m. and dinner at 7:00 p.m.

On tap for the March 11 noon meeting is a talk on Cook Inlet regional geology by Lum Lovely.

Logging Symposium

The Sixth International Well Logging Symposium of the International Society of Professional Well Log Analysts will be held May 4-7, 1965, in Dallas, Texas. Approximately 30 scientific papers covering all phases of formation evaluation will be given. Symposium headquarters and all Technical meetings and exhibits will be located in the Dallas Sheraton Hotel.

The brochure listing the papers and authors will be available soon and may be obtained at the following address:

Franklin Wheeler  
Vice President - Publicity S.P.W.L.A.  
Skelly Oil Company  
P. O. Box 1650  
Tulsa, Oklahoma 74102

FROM THE PRESIDENT

The object of Pacific Section, as stated in our Constitution, is in part "to provide for discussion of subjects and problems coming within the scope of the profession." The executive committee recognizes a need to help supply funds for distinguished lecturers and to help pay for mailing costs or other local society needs. Also, it is recognized that another objective of Pacific Section's Executive Committee is to exercise fiscal responsibility over the members' funds.

As indicated in my letter published in the December, 1964, issue of the Pacific Petroleum Geologist, your Executive Committee has formulated a policy for what it considers a fair distribution of Pacific Section funds to distant members in the various cities where meetings are held, and also a method of announcing to the societies each year the amount they may expect. It is hoped that the solution to these two problems will fill a need by both society and executive committees.

The fairest method of distribution of funds seemed to be that based upon the number of members benefiting by such a distribution, and at the same time to give those societies with small membership enough funds to be meaningful. By this method any increase in society membership would be accompanied by additional funds from Pacific Section.

The plan adopted would operate as follows:

1. The geologic societies presently located in cities where meetings are held, i.e., Anchorage, Seattle, Sacramento, San Francisco, Bakersfield, and Ventura will receive as a distribution of Pacific Section funds two dollars (\$2.00) per member per year with a minimum of one hundred dollars (\$100), whichever is the greater.
2. For this purpose a member of a geologic society is one who has paid his current dues to Pacific Section.
3. The money to be distributed to each society will remain with Pacific Section and be credited to the society. The account will be closed at the conclusion of each annual meeting and a new account started. Funds will not be carried over from year to year. The use of funds made available herein are to be used to promote the objectives of the Pacific Section.
4. Should one or more geological societies be formed in the same city, or very closely located towns, the Executive Committee may, at its option, disperse funds in a manner best suited to all the membership in that area.
5. Any society may, periodically, request the number of members on record for their group by writing to the Pacific Section Membership Secretary.
6. It will be recommended to the incoming officers that within thirty days after assuming office, the president shall notify the president of each of the societies the amount of funds to which that society is entitled based upon their membership or because of any other outstanding financial condition, with a statement of why the amount is more or less than the preceding year.

Under this plan the amount of money allotted to most societies is equal to or greater than the average amount they have received over the past six years. In addition, the plan fosters the incentive of acquiring new members and the renewal of old memberships. The Pacific Section is now in the process of contacting