PACIFIC PETROLEUM GEOLOGIST

1954

January
"Geologic Reconnaissance of Alaska" By John Hazzard
"Migration and Accumulation of Oil" By Frank Parker
"Earthquakes in California Before American Occupation" Dr. Louderback
"The Place of Geology Among the Sciences" Dr. King Hubbert

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"Geology of West Texas" By John Emery Adams
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"Hypotheses of Mountain Building" By Professor David Griggs
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"Geology of the Illipah Quadrangel" Central Nevada By Prof. W. H. Easton
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"A Volcanic Cycle, as Exhibited by Italian Volcanoes" By Dr. Fred M. Bullard

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"Eocene Stratigraphy of California" By Dr. V. Standish Mallory
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PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 January 1954 No. 1

ASSOCIATION ACTIVITIES

BRANNER CLUB MEETING

Mr. John Hazzard of the Union Oil Co. spoke on the "Geologic Reconnaissance of Alaska" before the Branner Club at Caltech, December 7th and before the San Joaquin Geological Society on December 8th.

Mr. Hazzard prefaced his geologic travelog with a summary of the sedimentary basins, as outlined by the U.S.G.S. From the Survey tectonic map, the following areas were described.

I Arctic Foothill and Coastal Belt. The section consists of 23,000 feet of Cretaceous and has undergone a more or less intensive exploratory program since 1944. The Arctic Contractors drilled at least 20 wells to basement without developing commercial production.

II The Koyukuk Geosyncline has a lower Cretaceous section 15,000 feet in thickness of marine and non-marine beds. Complex folding and post-Cretaceous intrusives are the main geologic features of this area. No oil seepages have been reported.

III The Kuskowin Geosyncline is estimated to have 65,000 feet of Cretaceous rocks. No seepages have been found in the area. It is a region of low grade Metamorphism.

IV The Matanuska Geosyncline includes the Cook Inlet and Kanatak areas of the Alaskan Peninsula. Here are found many oil seepages in petroliferous Triassic and Jurassic rocks. In the Kanatak area, Standard-Tidewater and Union drilled to a depth of 7000 feet at Jute Bay. Oil shows were encountered but the formation was tight.

V The Katalla-Yakataga area is of special interest because of the Phillips Petroleum activities. Oil seeps have been known since 1900 and the Katalla Field produced 126,579 barrels of oil between 1923 and 1933, when the refinery burned down. Geology is complex and beds of Eocene, Oligocene and Miocene age are present.

Spectacular air photos were shown of the area including the Katalla valley, oil field and railroad, Bering Lake and Glacier, Mt. St. Elias and Haydon Peak, Mt. Logan (over 19,000 feet), Bruin fault at Cook Inlet, Mt. Douglas from across the Kamishak River and many other views equally spectacular.

U.C.L.A. GEOLOGICAL SOCIETY

In a refreshing display of courage, intrepid Frank Parker of the Signal Oil and Gas Company grappled with the slippery problems of the migration and accumulation of oil in a paper given at the monthly evening meeting of the U.C.L.A. Geological Society on November 18.

Frank discussed the general background of ideas on origin and migration and described the types of traps found within the Los Angeles and Ventura Basins and the Cuyama Valley. He then presented a simplification of King Hubbert's theories on hydrodynamic accumulation, showing the governing factor to be dependent upon pressure gradient rather than on velocity of flow.

Frank advanced a classification of traps based upon the factors that determine the present position of the oil pool. These factors can be arranged in three major groups: structural, lithologic and fluid factors, and any combination of the various factors in these groups. It was pointed out that 98 per cent of the approximately five billion barrels of oil so far produced in the area discussed came from structural traps.

Parker then showed, based upon evidence from oil fields and geologic field conditions, that accumulation must be of relatively late occurrence and took place after compaction and lithification of the shales. No conclusive evidence can be presented to show that oil is formed either early or late exclusively. If oil is formed in the early stages of marine sedimentation, it must be retained in these muds even while they are being compacted and lithified, rather than expressed therefrom, unless the oil is regarded as being in a state of migration for an inordinate period of time or is stored in structures which are later destroyed, spilling the oil into the newly formed structures. Evidence was presented to show that at least the storage and spilling explanation is untenable for a number of fields in the area.

MAN POWER LEGISLATION

A letter has been received from B. F. Hake, Western Gulf, Chairman of the A.A.P.G. Committee on National Responsibility, in which he calls attention to a recently proposed bill.

He states that under the existing law (Public Law 51) all reservists are subject to recall to active duty at the will of the Armed Services. A bill (H.3893 and S.1551), endorsed by many responsible groups including the Engineering Manpower Commission and the Scientific Manpower Commission, has been proposed. This bill provides for a National Manpower Board in the offices of the President, which would study and advise the President on national requirements for specialized personnel, advise the Selective Service System concerning the selection of registrants with special qualifications, and have final jurisdiction on appeals from call to duty of reservists with special proficiency. The Board, to be appointed by the President, would consist of nine persons with the necessary experience. Not more than three members could be on active duty in the Armed Forces.

This bill was held in the Congressional Committee on Armed Forces from April, 1953 until the adjournment of Congress. Unless pressure is brought for its enactment, it may never become law. The Committee on National Responsibility urges the A.A.P.G. members to exert themselves in the best interests of the nation and of our profession.

PACIFIC PETROLEUM GEOLOGIST

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Sacramento Representative:	Mike Rector
San Francisco Representative:	Glenn Lansing
San Joaquin Representative:	Quentin Moore

Next deadline February 1.

SACRAMENTO GEOLOGICAL SOCIETY DINNER MEETING

The following account was inadvertently omitted from the June issue of the Pacific Petroleum Geologist and is published in this issue because of its general interest.

The annual dinner meeting of the Sacramento Geological Society was held June 25 at the Senator Hotel, Sacramento, California. The speaker of the evening was Dr. George D. Louderback, Professor Emeritus of Geology at the University of California.

Dr. Louderback's talk, "Earthquakes in California Before American Occupation" was of great interest to Society members and guests. The speaker treated his subject from a historical standpoint, dividing accounts into three periods:

I Indian
II Early Spanish
III Mission

Reports of earthquakes during the Indian Period are full of fantastic stories accounting for certain major physiographic features such as the Golden Gate. Accounts during the Early Spanish Period, built on tales of explorers, are lacking in details and continuity.

The Mission Period contains more accurate descriptions found in records kept by the various priests of the early missions, as well as newspaper articles of that time. The first missions were located along the Coast, south of where San Francisco is now situated. No information could be found concerning the region of the great valley or of the mountains. During this period, the most destructive quake in California occurred in 1812. Of the 19 missions, seven were wrecked and the first shock was felt from San Diego to Lompoc. A tidal wave resulting from this shock is described both by the mission fathers and by a ship off the Santa Barbara Coast.

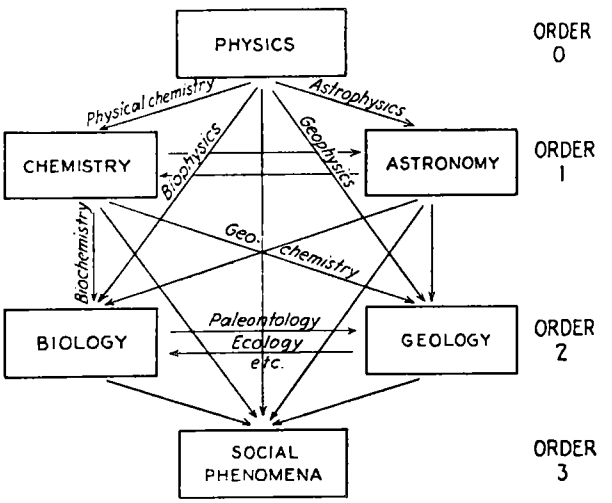
Dr. Louderback has carried on a most exhaustive research on the history of California earthquakes during these periods and his findings have been of great value to seismologists making studies of these phenomena.

CALTECH GEOLOGY CLUB

Dr. King Hubbert, Shell Oil Co. at Houston, Texas, spent the week of November 16 at the Division of Geological Sciences at Caltech. During his stay he was guest lecturer on Ground Water for three sessions in the sophomore course in Physical Geology and on November 18 he discussed the subject, "The Place of Geology Among the Sciences" before the Caltech Geology Club.

In his talk, Dr. Hubbert pointed out that the widely accepted view is that the sciences have become so complex and contain so much data that one man can master but a fraction of any one of them. Actually, the sciences are interrelated and dependent on each other in varying degrees.

The sciences may be grouped, as on the accompanying chart, in the order of increasing dependency and complexity. Physics is the basic and most general of sciences and encompasses all of the manifestations of matter and energy in the other sciences. Geology is dependent on physics, chemistry and astronomy and has a lateral mutual dependency with biology. A student of geology is therefore not a narrow "specialist" but must master some of the fundamental parts of these sciences to be a competent geologist. Therefore, knowledge of the fundamentals of related sciences will make geology simpler, rather than more difficult as has been commonly feared.



INTERRELATIONS AMONG THE PHENOMENOLOGICAL SCIENCES

WANTED

Anyone knowing the address of any of the following A.A.P.G. Pacific Section members, contact J. D. Traxler, MI 8311, Signal Oil & Gas Co., 811 West 7th St., Los Angeles 17, Calif. They have paid their dues and we would like to place their names on the A.A.P.G. mailing list.

Roland J. Bain, Los Angeles
Carol Daily, Bakersfield
William G. Hannah, Ventura
J. W. Holley, Whittier
Philip E. Jackson, La Jolla
Carlyle D. Johnson, Portland, Oregon
Kenneth H. Koford, Reseda
Jack S. Leach, Los Angeles
Donald R. Lindsay, Ventura
J. O. Salveson, Salinas
Dan Sokol, San Francisco
Herbert J. White, Bakersfield
Thomas L. Wright, Salinas
Harry Wiese, Sacramento

NORTHWEST DINNER MEETING

The Northwest Geological Society met in Tacoma, Washington, December 15th for dinner and a talk by Dr. Julian D. Barksdale, professor of geology at the University of Washington. His subject was "Cretaceous Marine Strata and Associated Rocks in the Northeastern Cascades." Dr. Barksdale advocates a graben-like structure to account for the area of Cretaceous sediments bounded on the east, south, and west by older intrusives. He also reported a definite paucity of seeps, and does not recommend an "oil rush".

PACIFIC SECTION DUES

Your treasurer wishes to express his appreciation to the more than 680 members and subscribers who have voluntarily paid their 1954 dues. We now only have 325 delinquents!

Remember: THOSE WHO FAIL TO PAY THEIR DUES WILL BE REMOVED FROM THE MAILING LIST.

Kindly make $2.00 checks payable to A.A.P.G. Pacific Section and mail to: J. D. Traxler, Signal Oil & Gas Co., 811 West 7th St., Los Angeles 17, Calif.

APPOINTMENTS

President Harold Rader has announced two further appointments in the Pacific Section.

Directory Chairman
Dick Faggioli, Humble Oil & Refining Co.

Cross-Section Sales Manager
Dorothy Harkness, Union Oil Co.

Mr. Rader also announced that Orrin Wangsness, Western Gulf Oil Co., has been elected San Joaquin Representative by the San Joaquin Geological Society.

NOMINATIONS COMMITTEE

Past-President Frank Carter proposed a resolution at the business meeting November 6th, designed to eliminate the present haphazard and inadequate method of selecting candidates for Pacific Section officers which does not always give proper representation of the membership or provide the best qualified persons for the offices.

The resolution, which was passed unanimously, provides that a Nominating Committee of five persons, at least two of whom shall be past officers of the Pacific Section, shall be appointed by the Executive Committee to serve through one annual election. The Nominating Committee shall select at least two candidates for the offices of President, Vice-President, Secretary and Treasurer. Additional nominations may be made by written petition of 25 or more Pacific Section members in good standing, if received by the Secretary at least 15 days before the next election. Nominations may also be made from the floor of the annual convention business meeting, as in the past.

TRUST FUND

The trustees of the Pacific Section Trust Fund, Harold Hoots, Cliff Johnson and Frank Carter, reported at the recent business meeting on the present status of the Fund. The Trust Fund was established in 1947 with funds remaining from the 1947 annual A.A.P.G. convention and has been augmented with funds from the 1951 annual convention. The Fund now has total assets of over $15,000. However, its uses are limited to: (1) production of income, (2) the establishment of a Revolving Fund for worthy projects which are reasonably certain to return the investment, or (3) the support of other projects recommended by the Executive Committee and approved by a 2/3 majority of the voting members of the Pacific Section. Projects that have been sponsored include the regional cross-sections, the guide books and the directory.

The Trustees believe that the Fund should be used more effectively because at present they can act to approve or disapprove only submitted projects. To further the active use of the Trust Fund, the Trustees proposed a resolution, which was passed unanimously. This resolution provides that the Executive Committee appoint a Trust Fund Project Committee of three, charged with the responsibility of recommending to the Executive Committee and to the Trustees projects for the proper use of these funds.

TRUST FUND PROJECT COMMITTEE

President Harold Rader has appointed a committee consisting of Roy Barnes, Continental, Chairman; Carroll Wagner, General Petroleum and Mel Hill, Western Gulf. Earl Noble has been appointed to the Trust Fund Committee to replace Cliff Johnson.

PACIFIC SECTION PUBLICATIONS

GUIDEBOOKS: A few copies of the 1952 National Convention Field Trip Guidebook are still available. It contains 290 pp., 88 maps, 83 cross-sections, 29 stratigraphic or correlation charts, 11 photos, and Road Logs of 670 miles of road. Short illustrated papers on regional geology and 65 oil fields in the Los Angeles Basin, Eastern Ventura Basin, Cuyama Valley and Southern San Joaquin Valley. Checks should be made payable to Pacific Section A.A.P.G. and mailed to J. D. Traxler Signal Oil & Gas Co., 811 West 7th St., Los Angeles 17, Calif. Price $6.50 postpaid to United States addresses.

DIRECTORY: The new 1953 Directory of A.A.P.G. Pacific Section members is available for $1.00 postpaid. Checks should be made payable to Pacific Section A.A.P.G. and mailed to R. E. Faggioli, Humble Oil & Refining Co., 612 So. Flower St., Los Angeles 17, Calif.

CROSS-SECTIONS: Detailed cross-sections of Los Angeles Basin, Eastern Ventura Basin, Western Ventura Basin including Channel Islands, Salinas Valley, and Sacramento Valley are available for $1.10 each or $5.50 for the set postpaid. Checks should be made payable to Pacific Section A.A.P.G. and mailed to Dorothy V. Harkness, Union Oil Co., 617 West 7th St., Los Angeles 17, Calif.

CHRISTMAS DINNER DANCE

The annual Christmas Dinner Dance at Oakmont Country Club on December 26 attracted a happy group of about 100 couples. The cocktail party preceding dinner, courtesy of Schlumberger Well Surveying Corp., noticeably enlivened the evening and the music of Bruce Hudson and his orchestra was enjoyed by all. Chairman Joe Hatheway and his able assistants, Ken Fuller and Aden Hughes, did a bang-up job on the arrangements.

IN MEMORIAM

George M. Dorwart

The many friends and associates of George M. Dorwart, Reserve Engineer for Standard Oil Company in Taft, are grieved to learn of his sudden death on December 14, 1953 of a heart attack at the age of 39.

He was graduated from the California Institute of Technology with a B.S. and M.S. in Civil Engineering, where he was also Captain of the Varsity Baseball team and recipient of the Wheaton Trophy in 1937.

George came to Standard Oil in August, 1950 as a Petroleum Engineer, having been employed by the Union Oil Company prior to that time. He was active in the A.I.M.E., A.A.P.G., a Mason and a Shriner.

Surviving are his widow, Doris, and daughter, Ann.

Those who knew him will miss his sincere friendship. The engineering and geologic fraternity has lost a capable brother.

PERSONAL ITEMS

W. L. (Layt) Stanton, Jr., Union Oil Co., Division Geologist at Sacramento, has been transferred to Orcutt and will assume the duties of Division Geologist there. After three and one-half years at Sacramento, it will take some time to become acclimated to the ocean breezes at Orcutt.

James E. Eke, Union Oil Co., has transferred from Sacramento to Bakersfield where he will join the company's Paleo staff.

Murray Nadler, former Standard Oil Co. geologist, is leaving Standard and Sacramento to join Franco-Western at Bakersfield.

John Sprague, General Petroleum geologist has transferred from Santa Maria to Sacramento and joins the currently successful G.P. group of Bob Orwig and staff.

W. C. (Bill) Bishop and Manley Natland, Richfield Oil have given up their ratings as sultan, jr. grade to return to the homeland to spend Christmas with their families.

There is no truth to the rumor that Spence Fine, Richfield Oil Corp. is looking for mountain goats to assist in the development of the area surrounding the recent discovery on his "play" near Timber Canyon.

A. T. (Andy) Anderson of Continental Oil has been enjoying the climate and social life of the Bay Area while working from headquarters in Walnut Creek.

Burt Marier is looking for crew members to help man his new and untested ten-foot sailboat in the next Honolulu race. Burt built this boat in his back yard and says he's certain it is adequate for the trip.

Larry Kuenzi, Standard Oil Co., has been transferred from the headquarters office at San Francisco to Standard's northwest district office in Seattle.

J. E. Heppert has been transferred from Standard's San Francisco office to their Research Department at La Habra on a special assignment. He has sent for his scatter gun to help prevent all the wild ducks from reaching Mexico.

The recent discovery of the first commercial oil well in Australia is of particular interest to Pacific Section members because of the large number of former Californians who are associated with the companies involved in this exploration venture.

The corporate relationships are somewhat confusing (like most foreign deals). However, the overall responsibility for the management of the exploration side is in the hands of American Overseas Petroleum Limited of which George Cunningham is President and Jim Kirby is Geological Supervisor. American Overseas is one of the companies in the Caltex group. Fred Sealey, a Caltex Vice-President, is in charge of the drilling activities. In charge in Australia are John Thomas, formerly of Rio Vista and way stations, and Maurice Smith, former Socal seismic bird-dog. Others from California who have participated in the field end for Caltex or affiliated companies have been Henry Hawley, Paul Kraus, Bill Findlay, E. M. Butterworth and the late Carl Bremner.

Lee Jordon, District Geologist for Bankline in Bakersfield, recently entered the ranks of the great crime hunters in attempting to protect his wife's Christmas present with a display of courage which would do credit to Scotland Yard. Lee chased the thief who had wrecked his wife's new car until his pajamas gave way, falling at his feet in exhaustion. Lee, in anticipation of a recurring disaster, has hinted that he would appreciate a donation from anyone for an extra pair of p.j's.

Bill Barbat, California alumnus, was seen on New Year's Day in the end zone cheering for UCLA while Joe Long, a Michigan State alumnus, sat on the 50-yard line counting his winnings and hoping there would be enough to pay for the license on his new Packard.

Harvey Lee, Union Oil Co. scout, is looking a little tread-worn these days. Seems he is spending his evening hours sprinkling his roof and washing ashes off his driveway.

Maurice Sklar, Union Oil Co. at Bakersfield, has recently been assigned the responsibility of supervision of the company's Offshore Exploration Program.

Eugene Wyanko, Union Oil Co. at Santa Paula, has recently been assigned the responsibility of supervising the company's geophysical activity on the Pacific Coast.

Mr. B. A. Otis has retired as Manager of the General Petroleum Corporation's Land Department, effective January 1, 1954. Mr. Otis had been associated with G.P. since 1925. He will be replaced by Mr. Paul Carver from Bakersfield who until January 1st was the Assistant Manager of the Land Dept.

Orrin Gilbert, Standard Oil Company's versatile geologist at Los Angeles, has for years been an expert on car radios, but now is a master of the entire electrical system of the modern auto. A week or so ago he installed a radio in his new Chevrolet. In the process he learned the origin and purpose of every wire under the dashboard and even took time to assign family background to some of the more difficult ones.

John Huber, formerly Assistant Regional Geologist for Continental in Los Angeles and more recently with D. D. Feldman Oil and Gas in Sacramento and the Rocky Mountains, is now in charge of exploration in Montana and Wyoming for J. Ray McDermott & Co., Inc. His new address is Room 100, Producers and Refiners Building, Casper, Wyoming.

The newly completed addition to Oceanic's office building in Bakersfield will house quite a group of local geologists within its walls. Drex Dana, Fred Green, Daryl Kirkpatrick and Harry Campbell will all be comfortably situated in the new Franco Western-Oceanic Building on the corner of 18th and Oak Streets. All telephone calls will be handled by a Margaret Dunn, formerly with General Petroleum in their engineering department at Taft.

Harry Weiss of the Schlumberger staff at Sacramento has taken a full month's vacation preparatory to his exile to Coalinga with only his truck and lots of work to keep him company.

Congratulations to Don and Marlene Richardson on their marriage November 30, 1953 at Sacramento.

R. H. (Bob) Paschall has left Amerada Petroleum Corp. and will open an office in Ventura for Hancock Oil Co. soon after the first of the year.

The Tide Water Associated Oil Co. Geological Department in Ventura held open house in their new offices December 15, 1953. A meeting was held after the open house but no one attending is certain what subject was discussed.

The Continental Oil Co. has announced the following personnel changes in the Geological Dept. effective January 1, 1954: Keith L. Rathbun, former Assistant Manager at Houston is now Regional Geologist, Western Region. Hugh W. McClellan transferred from Olympia, Washington to San Miguelito Lease in Ventura, where he will be in charge of exploitation. E. G. (Ed) Johnson was transferred from San Miguelito to the Exploration office in Ventura. Frank E. Minshall was transferred from Ventura to Los Angeles. W. M. (Bill) Quackenbush was transferred from Los Angeles to Olympia, Washington.

W. K. (Bill) Barker has resigned from U.P. Railroad Co. and is to open a consulting office at 165 N. San Vicente Blvd., Beverly Hills, phone Bradshaw 25216.

Bob Sitzman, former Richfield scout has joined the Western Gulf staff at Los Angeles as scout in the Los Angeles Basin District.

Wayne Elliott, Richfield Paleontologist at Long Beach has been scouring the libraries and travel agencies for information on Mexico and the Hawaiian Islands. At a recent Elks Club drawing he won an all expense paid tour for himself and his wife with a choice of vacation spots. He seems to prefer Honolulu and his wife is holding out for Mexico City. We shall see-----.

Jim Benzley, District Geologist, Western Gulf, for the first time in recent years won some money in an office pool on the Rose Bowl Game last Friday. On Saturday, he went to the races and won again. Monday he invited the fellas in the office out to lunch to celebrate his good fortune. New York steaks were the order of the day. Tuesday his wife found out that he had won and demanded her fair share. Wednesday Jim borrowed money for a shoe shine. Some people have all the luck.

Three of Shell's Bakersfield employees are making plans to scatter to three points of the compass early this month. Earl Armbruster, Division Exploitation Manager to New York City offices for Shell; James G. Osborne, Jr., Paleontologist, to Salt Lake City for Shell; and Don Collins, Geologist, to Los Angeles as an Exploitation Engineer.

Western Gulf announces the addition of Joe Parmenter to the staff in Bakersfield where he will assume the duties of scout for the San Joaquin Valley. Karl Kennedy, Western Gulf's former Valley scout is starting on his new assignment as specialist in electric logging methods and interpretations for the Pacific Coast.

The S.E.P.M. needs some help in locating some of their lost cohorts. If any of the following bug men would like to get on the S.E.P.M. mailing list, please send an address to Wayne Elliott, P. O. Box 470, Long Beach, California: Keith Berry, C. M. Gilbert, John Lavery, Andrew W. Marianas, Michael Trapesonian, Pat Wright.

Schlumberger Well Survey Corp. has announced the following promotions and transfers, effective January 1, 1954. Art Curran transferring from Los Angeles to New Orleans, La., to become Assistant Manager of the Southeast Area. Charles F. Gallager transferring from Bakersfield to Los Angeles to replace Curran as Coast Division Manager. Armour Kane transferring from Taft to Bakersfield. George Hepburn transferring from Long Beach to Taft. William Plash transferring from Santa Maria to Long Beach. J. D. Pound transferring from Newhall to Santa Maria.

Umberto Young wishes to announce his new mailing address: P.O. Box 1326, Beverly Hills, phone VAndyke 5686.

Jim Anderson, formerly Regional Geologist for Continental has joined the staff of Kern Oil Co., Ltd., in league with Fred Vandenberg and Ed Wellbaum.

Carl Arleth, Sr., Standard Oil, spent the week between Christmas and New Year visiting friends in the Los Angeles area after having Christmas with Carl, Jr. at Ventura.

Jack Elam, former California geologist, now consulting in Midland, Texas, spent Christmas week in the Los Angeles area showing off his young daughter and looking for some of that easy Michigan State money.

Paul McGovney of Honolulu Oil Corp., Billings, Montana, visited in parts of California over the holidays.

NURSERY NEWS

John and Ophelia Pujol are proud parents of a baby girl, their second, born November 12, 1953 in Woodland, California.

To Frank and Jane Kilmer, Shell Oil Co. at Sacramento a girl, Holly Ann, born November 2, 1953.

Joe and Eleanor Poland, U.S.Geological Survey at Sacramento, became the proud parents of a baby girl Sarah Lovet, December 5, 1953.

To Bill and Alice Bauer, Texas Co. at Sacramento, a seven pound, one ounce girl, Susan Pamela, December 19, 1953.

To John and Mary Reynolds, Texas Co., Sacramento, a nine pound, four ounce girl, Beth Anne, born on Christmas day.

Bob and Helen Hurt became the proud parents of twin girls, Mary Elizabeth and Margaret Jane. Bob is with the Union Oil Co. and Helen was formerly with British American.

CALENDAR

Jan. 12, 1954: Tues., 7:30 P.M., Sacramento Geological Society Meeting, State Public Works Bldg., 1120 N. St., Sacramento.

1. Mr. Flint H. Agee, West Coast Mgr. United Geophysical Co. will give "An Introduction to Seismic Surveying."

2. Mr. Maurice Sklar, Div. Geophysicist, Union Oil Co., will review "The Highlights of Seismic Exploration in California."

January 12, 1954: Tues. 7:00 P.M., Coastal Geological Society, Regular Dinner Meeting, Miramar Hotel, Montecito. Dr. K. O. Emery, Professor of Geology at U.S.C. will present a lecture on "Offshore Submarine Geology for Southern California."

January 13, 1954: Wed. 7:30 P.M., S.E.P.M. Forum Meeting, Founders Hall, U.S.C., Room 226. Dr. K. O. Emery will discuss "Circulation of Basin Waters of Southern California" and Dr. Orville Bandy will talk on "Some Aspects of Ecology of Forams."

January 14, 1954: Thurs., 6:30 P.M., A.I.M.E. Junior Petroleum Group will meet at the Turf Club, Corner Anaheim Telegraph and Lakewood, Downey. Engineer Registration will be discussed by Jan Law.

January 18, 1954: Mon., 7:00 P.M., A.A.P.G., Pacific Section Forum Meeting, G.P. Auditorium, 612 So. Flower St., Los Angeles. H. W. Menard, Oceanographer with the Navy Electronic Lab will discuss "Diving for Underwater Geology - Southern California Coast." His talk will be illustrated with a 16 MM color film.

January 19, 1954: The Northwest Geological Society will meet at the Governor Hotel in Olympia, Washington. Dr. F. A. McMillin of the College of Puget Sound will speak on the "Structure of the Core of the Olympic Mountains."

Jan. 19, 1954: Tues., 7:00 P.M., A.P.I. San Joaquin Chapter, Dinner Meeting, Stockdale Country Club. Mr. William W. Rand will discuss, "Offshore Exploration."

Jan. 19, 1954: Tues., 8:00 P.M., A.P.I. Los Angeles Basin Chapter Forum Meeting, Shell Recreation Hall, Long Beach. Myron Kinley will discuss and show a colored film on "Oilwell Fires and Blowouts."

Jan. 25, 1954: Mon., 7:30 P.M., A.I.M.E., Petroleum Technology Forum, G.P. Auditorium, 612 So. Flower, Los Angeles. Dean H. Sheldon will discuss the affect of Lease and Operating Agreements on oil property values.

Jan. 27, 1954: Wed., 7:30 P.M., San Joaquin Valley Chapter A.A.P.G., Dinner Meeting in the Spanish Ballroom of the El Tejon Hotel, Bakersfield. John Emery Adams, President of the A.A.P.G., will discuss affairs of the Association and talk on a topic yet to be selected.

BIBLIOGRAPHY OF RECENT PUBLICATIONS

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"Filtered Ocean Water Used to Flood Wells in California's Wilmington Field." D. H. Stormont, January 4, 1954. Vol. 52, No. 35.

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"New Radiation Counter Solves Many Logging Problems." H. E. Schaller, pp. 86.

"Symposium on Well Logs." L. W. Storm, pp. 87-107.

"Current Electric and Radioactivity Logging Methods." Bob Greider, pp. 107-110.

"Interpretation of Core Analysis." J. J. Crawford, pp. 124-126.

"Logging From Drill Returns." R. O. Patterson, pp. 127-132.

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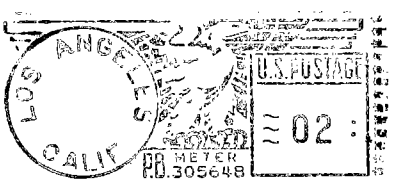

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PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 February 1954 No. 2

ASSOCIATION ACTIVITIES

A. A. P. G. Forum

Mr. H. W. Menard, oceanographer with the Navy Electronic Laboratory at San Diego, was guest speaker at the A.A.P.G. Forum at the General Petroleum Corporation Auditorium, January 18, 1954. He presented a very interesting talk on the subject "Diving for Underwater Geology--Southern California Coast".

At the beginning of his talk, Mr. Menard had one of his co-workers, Robert Dill, present a 16 MM color film, showing the equipment used for underwater diving as well as the plant and marine life encountered beneath the surface of the ocean. The pictures were taken around the various islands in the vicinity of San Diego. The highlight of the film was a sequence of shots taken while a playful elephant seal was attempting to swallow the camera

After the highly entertaining film, Mr. Menard discussed the organization and the usefulness of underwater geological reconnaissance as a part of off-shore oil exploration. This new technique was first used in the summer of 1953 to map about 2 square miles of the continental shelf on the north side of San Nicolas Island, California. Two mapping teams, each consisting of two divers and a recorder--navigator operated in small boats based on a ship. Through the use of aqualungs the divers were able to make geological observations in water depths as great as 120 feet for periods of a few minutes or to a shallower depth for as long as an hour. They could perform almost any single mechanical operation which is possible on land, including the measurement of strike and dip on rock outcrops, slope of unconsolidated sediments, sampling of rock outcrops and the photographing of small sea-floor topographic features. Two days were spent diving off San Nicolas Island. Outcrops were found at 26 of 28 stations and dips and strikes were measured at 25 stations.

Mr. Menard concluded his talk by stating that underwater mapping opens about 1,000 square miles of the sea floor off Southern California to inspection by geologists. Much of the area may contain enough outcrops to be mappable. The detail obtainable appears greater than by any other method of off-shore exploration.

OREGON OIL AND GAS RULES

The 1953 Oregon Legislature passed a new oil and gas conservation law known as "Chapter 520, Oregon Revised Statutes," which directs the Governing Board of the State Department of Geology and Mineral Industries to compile reasonable rules for the guidance of operators both in the prospecting for and production of oil and natural gas in order to prevent waste. The Board has just issued Miscellaneous Paper No. 4 titled "Rules and Regulations for the Conservation of Oil and Natural Gas." The paper includes an appendix containing Chapter 520, Oregon Revised Statutes, for reference purposes.

Miscellaneous Paper No. 4 may be obtained at the Portland office of the Department, 1069 State Office Building, or the field offices in Baker and Grants Pass. Price is 50 cents postpaid.

SAN JOAQUIN CHAPTER MEETING

The regular dinner meeting of the San Joaquin Geological Society was held at the El Tejon Hotel, January 27. The speaker for the evening was John Emery Adams, President of the A.A.P.G. and Senior Geologist, Standard Oil Company of Texas, Midland, Texas.

Mr. Adams opened the meeting with a discussion of Association affairs. He reported that the finances of the Association are in good shape with no money being borrowed in the last year despite the opening of the new National Headquarters Bldg. in Tulsa. Total outlay for the furnished building was $186,000, $26,000 of which was defrayed by contributors. Income from the rental of the basement of this building will help lower operating expenses.

Mr. Adams announced that the S.E.G. will conduct their own national convention in the near future.

A project under consideration for the Association is the publishing of a biographical book of members, patterned after directories published by the Pacific and other Sections.

Mr. Adams then presented a talk on the "Geology of West Texas" based on twenty-six years of experience in the Midland Basin area.

The deposition throughout West Texas was of a transgressive nature from the Cambrian through the upper Pennsylvanian. The seas moved from west to east across the Central Basin Platform, the Midland Basin and the Texas Arch. Deposition was mainly limestone and dolomite.

Cambrian-Ordovician deposition was predominantly limestone and dolomite which grade down into clastics, the total ranging up to 3000 feet in thickness. Some regional structures were developing in the middle Ordovician. The uplifts were scattered and were accompanied by good sand deposition, while in the deeper areas black shales were accumulating. In the Mississippian the seas completely covered the area with the maximum deposition of 100 feet of beds occurring in the off-shelf areas. During Permian time large sag areas developed in Oklahoma and West Texas. The total Permian section has not been penetrated in the sag area of West Texas. Transgression ceased in the upper Permian. The growth of the land mass then resulted in a regressive or basinward reef growth.

Throughout the Midland Basin area, the post-depositional structures generally produce no oil. All structures are of very low relief with a maximum average dip of 5° except in reef areas where dips up to 20° occur. One-half of the oil produced in West Texas is from transgressive units and 90 per cent of the total oil is from the Central Basin Platform. The average yield is 70-80 barrels per acre foot of zone with a yield of 300 barrels considered quite high. One per cent effective porosity is average and therefore a thick pay zone is desirable both in fractured limestones and reef structures.

SEE YOU IN ST. LOUIS, LOUIS.

NATIONAL CONVENTION

The now famous special cars to the annual national convention in St. Louis will leave Union Station, Los Angeles, at 1:30 P.M., Friday, April 9, 1954, on the Southern Pacific Golden State Limited train #4. These modern de luxe cars will travel on Tydol lubricated Timken bearings via Southern Pacific to Tucumcari, then Rock Island to Kansas City and Missouri Pacific to St. Louis, arriving in the land of the Cardinals at 8:05 A.M., Sunday morning, April 11th. There will be no change of cars.

It is always nice to return westbound by some other route than that used eastbound. There is no extra railroad fare necessary if the passenger returns via New Orleans; or via Denver and Salt Lake City and then into Los Angeles or San Francisco. The extra cost to return via Chicago and the Northern lines into Portland is $21.30 and into Chicago and return via the Canadian Transcontinental lines is $29.38.

The Pullman costs are higher in direct ratio to the number of extra days required. The Transportation Committee will be pleased to discuss these possibilities with you. It is highly desirable to the traveler that westbound plans be made prior to leaving Los Angeles.

This trip is being handled through:
Messrs. Ralph Odell or Henry Rice
Southern Pacific Company
Room 424, Pacific Electric Bldg.
Los Angeles 14, California
Telephone: Michigan 6161

You may also make your reservations through:
Mr. Homer J. Steiny
580 North New Hampshire Avenue
Los Angeles 4, California
Telephone: Normandy 1-4314

That great raconteur and bon vivant, Mr. Henry Davis of the Rapid Blue Print Company, has promised to be at the train to see that the lady travelers get off to a good start.

HANCOCK FOUNDATION LECTURE

Dr. Hiroshi Niino of the University of Tokyo will speak on "Submarine Oil Fields and Coal Fields of Japan," at Hancock Auditorium, U.S.C., Tuesday, February 16, 1954. 8 P.M.

S.E.P.M. MEETING

An evening meeting of the S.E.P.M. was held January 13th in Founders Hall on the U.S.C. campus. Dr. K. O. Emery opened the program with an interesting talk on "Circulation of Basin Water of Southern California." The speaker demonstrated by means of slides the types of deep-sea recording instruments used to measure temperature, salinity, depth and current flow of the northwesterly-flowing bottom currents which circulate in and out of the deep basins of the channel islands area. In connection with the direction of prevailing bottom currents, it was noted that the lowest point on the sills is always on the southeasterly side of these basins.

It had been previously known that temperatures at the lowest point of the basin sill were the same as those at the bottom of the basin - a fact which led to the assumption that bottom basin water was stagnant. The use of the current meter proved, to the contrary, that a continuous circulation prevails which spills water from the lowest part of the sill into the bottom part of the basin and thereby maintaining a temperature relationship between sill and bottom. It was also shown that aeration of basin water is maintained by the rotation of currents around the basin which allows a gradual association with the overlying water.

As the second speaker of the evening, Dr. O. L. Bandy presented a paper on "Some Aspects of Ecology of Forams." This informative talk was more or less in the form of a progress report along a line of ecologic research which Dr. Bandy has been following for several years and was based primarily on a collection of benthonic forams taken from ocean bottom profiles off San Diego, Point Arguello and San Francisco. Frequency studies on this material show a bathymetric as well as a north-south variation of recent benthonic foraminifera. In consideration of the ecological factors involved, Dr. Bandy believes temperature to be the main overall controlling factor. Exceptions are found, however, as some San Diego shallow-water species occur in deeper, colder water off San Francisco.

It has been demonstrated in other studies that foraminiferal zonation exists in the absence of temperature gradation. Also, Dr. Bandy found that in bathyal environments faunas apparently differ between the northern and southern profiles in spite of the fact that temperature differences are minor for equivalent depths in the two areas. This situation, in addition to the finding of some southern, shallow-water species in deeper and colder water of the northern profile, suggests that other factors than temperature may also be responsible for faunal variation. Oxygen content is probably an effective factor down to a depth of about 2000 feet at which point a minimum value is reached. At higher levels the oxygen content closely correlates with temperature so the affecting factor is not always so apparent.

In spite of these seeming incongruities, diagnostic species were found to be generally restricted to various depth zones.

SACRAMENTO MEETING

On January 12, 1954, the Sacramento Geological Society had a "Geophysical Night". Speakers for the evening were:

1. Mr. Maynard Harding, United Geophysical Company Supervisor, who gave "An Introduction to Seismic Surveying."

2. Mr. Maurice Sklar, Union Oil Co., Supervisor of Off-shore Seismic Work, reviewed "The Highlights of Seismic Exploration in California."

3. Mr. Charles L. Robinson, Geophysical Supervisor of the Robert H. Ray Co., conducted a tour through their mobile seismic units.

S.E.G. LUNCHEON

The January 21st meeting of the S.E.G. was held at the Biltmore Hotel where, after an excellent lunch, a sound film in color, entitled "Photogeology - A New Look for Oil" by Geophoto Services of Denver, was shown to an overflow crowd. It proved to be a well organized film, showing the various photogrammetric methods and techniques used in a reconnaissance geologic evaluation of a large area. The main point of the film was to demonstrate the usefulness and economy of such methods in evaluating large areas where conventional field methods might prove too costly.

COAST SOCIETY MEETING

Dr. K. O. Emery, Professor of Geology at the University of Southern California, addressed the Coast Geological Society January 12th at Santa Barbara on the subject of "Offshore Submarine Geology for Southern California." The field of offshore geology requires a relationship of water, topography and sedimentation, data for which must be obtained under difficult mechanical conditions. The speaker treated his subject in its broadest sense, with particular references to the complexities of contemporary geologic evolution now taking place in the sea around us. One interesting point was brought out during the discussion of seismic data in that no epicenters have been located from under the Continental slope. Dr. Emery illustrated his talk with numerous interesting charts and slides. A discussion of biochemical relationships and the effect of environment followed.

A.A.P.G. LUNCHEON

Mr. Paul H. Dudley, Consultant, was guest speaker at Rodger Young Auditorium on January 7th. The subject was "The Province of Guanacaste, Costa Rica". Paul and Dion Gardner made a preliminary geological reconnaissance of this area for Union Oil Company of California. The company has concessions in Costa Rica and is now carrying out detailed field investigation in this and other provinces.

Guanacaste is a name known to few people and for that reason the talk on Costa Rica in general and this province in particular was very interesting. It was a surprise to most of those present to see that all of Central America is not a steaming jungle alive with snakes. Rather, the speaker figuratively transplanted his audience back to California in 1840. He showed colorful pictures of handsome happy natives leading a leisurely carefree life amid the swaying banana trees. Although the geology was discussed only in very general terms, the talk and accompanying slides allowed the audience to see some of the peculiar animal and bird life and the unusual arboreal and floral assemblage that is found in this colorful part of the world.

PERSONAL ITEMS

Gladys M. Peyser of The Texas Company, Taft, has announced her engagement to M. L. Louke of Keystone Exploration Company. The nuptials are scheduled for early summer.

Rex Smith, Area Production Geologist, for Humble Oil and Refining at Los Angeles is in Houston for a three months training course for production geology.

Philip R. (Phil) and Arlene Patten have announced that they will be moving from Sacramento to Ventura where Phil will do exploratory work for Continental.

Anatole and Madeline Safonov recently wined and dined the Sacramento petroleum geologists and their wives at a post-holiday open house in their newly acquired Land Park home.

The Western Gulf Oil Company Geological Department held an open house in their new Ventura office on January 28, 1954.

New Ventura District Geological office for Hancock Oil Company is now located at 366 East Santa Clara Street, Ventura (Mailing address, P. O. Box 1851, Ventura). Telephone Miller 3-1430, for R. H. Paschall, Hancock's District Geologist.

Robert (Bob) Teitsworth is Amerada's new District Geologist at Ventura replacing Bob Paschall.

V. L. (Vern) Crackel, formerly Southern Calif. Petroleum Corp., has joined the Western Gulf Geological staff in Ventura.

The Texas Company has recently employed two junior geologists: John W. Bedford, MS, Oregon State, '53, to work in Bakersfield, and Roland J. Bain, MA, U.C.L.A. '54, to work in the L.A. Basin.

Joe Pelline, Humble Oil and Refining Company and Marilyn Mitchell were married in West Los Angeles, January 22, 1954. Joe has settled back at his desk after a short honeymoon and Marilyn has undertaken the enforcement of his self-imposed ban on exchanging early morning pleasantries with the secretarial staff.

Orrin Gilbert is at it again. It seems he was entertaining a V.I.P. at lunch one day. While en route, at about 8th and Bixel, he was so busy giving with the snow job that he didn't see the "no left turn" sign which he pushed over as he turned. What's more, he got away with it.

Al Loskamp, consultant geologist, has news for the suburban commuters. The average commuting time is one hour from Catalina Island to his office in the General Petroleum Building.

Effective January 1st, Ed Schuler, formerly with Rothschild Oil Company, began his employment with Tidewater Associated Oil Company after a short (?) orientation period at Santa Fe Springs and Los Angeles. He will join the Engineering staff at Ventura. Welcome home, Ed.

The Sacramento boys seem to be coming into their own. Miss Marcille Farr has joined Bob Orwig's staff and Miss Joyce Casey is now doing secretarial work in the Union Oil Company office.

Commuting between Bakersfield and Peru is approaching the rule rather than the exception for Irv Schwade of Richfield Oil Corp., since by press time Irv may be on a return trip to summer weather and the lower hemisphere.

Harry Nagel recently returned from the Navy and has resumed his association with the Standard Oil Company in the Southern District, effective Jan. 15.

Ed Morris, Party Chief of the General Petroleum seismic crew in Willows, has been transferred to Salt Lake City to assume duties as Geophysicist. Ray Doan will replace Ed as Party Chief.

Barney Barnard of Richfield at Bakersfield would be happy to testify concerning the liquid hospitality afforded scouts visiting in the great state of Texas. "You can't out-drink the Texans, but I gave it a good go," says Barney.

NURSERY NEWS

Mr. and Mrs. E. W. (Bill) Saunders, Intex Oil Company, a boy, Lowell William, born Dec. 16, 1953.

Mr. and Mrs. Harry Whaley, Tide Water Associated Oil Co., a boy, David William, 6 lbs., 8 oz., born January 10, 1954.

To Mr. and Mrs. Tom Barrow, Humble Oil and Refining Co., a son, Kenneth Thomson, born Jan. 25, 1954.

Mr. and Mrs. Pete Gester, Standard at Los Angeles, have a son, Douglas William, born Jan. 13, 1954, their first child.

Mr. and Mrs. Frank Getz, Standard at Los Angeles, announce the birth of their fourth son, John Francis, born January 7, 1954.

Jean and Bill Whitley, Intex at Tyler, Texas, and formerly with General Petroleum in Bakersfield and Ventura, report the arrival of a daughter (7 lbs. 9 oz.) on January 3rd.

To Eugene and Ann Borax, Union Oil at Los Angeles, a daughter Jean Lois, 7 lbs., 7 oz., born January 25, 1954. This is their second child.

BIBLIOGRAPHY OF RECENT PUBLICATIONS

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

Bulletin 164
Geology of the Eel River Valley Area, Humboldt County, California. B. A. Ogle, 1953.

Bulletin 168
Geology of the Breckenridge Mountain Quadrangle. T. W. Dibblee, Jr. and C. W. Chesterman, 1953.

TRADE JOURNALS AND MISSCELLANEOUS MAGAZINES

Oil & Gas Journal
Ventura Avenue Sets New High. D. H. Stormont, January 25, 1954, p. 417.

New Wildcat Technique. D. H. Stormont, January 18. 1954, p. 54.

CALENDAR

February 9, 1954: Tues., 7:00 P.M. San Joaquin Valley Chapter A.A.P.G. Dinner Meeting in the Spanish Ballroom of the El Tejon Hotel, Bakersfield. J. H. Beach and V. V. Church will speak on "Occurrence of Oil in Non-Marine Sediments."

February 11, 1954: Thurs. Noon. S.E.G. Monthly Luncheon Meeting. Plan to meet at the Biltmore. Subject to be announced at a later date.

February 15, 1954: Mon., 7:00 P.M., A.A.P.G. Monthly Forum Meeting, G.P. Auditorium, 612 So. Flower St., Los Angeles. Dr. David Griggs of the Institute of Geophysics at U.C.L.A. will discuss "Hypotheses of Mountain Building."

February 16, 1954: Tues., 7:30 P.M., Sacramento Geological Society Annual Dinner Meeting, University Club, 1319 K Street, Sacramento. Professor Hubert O. Jenkins, Sacramento State College, will give an illustrated talk "Down the Green and Yampa Rivers, Through Dinosaur National Monument, in a Rubber Boat." Dinner reservations should be made by contacting M. R. Rector Union Oil Co., before February 9, 1954.

February 16, 1954: Tues., 6:00 P.M., A.P.I. San Joaquin Chapter dinner meeting, Petroleum Club, Taft. Mr. Ned Brown, President of Brown Drilling Company will discuss and show movies on "The Drilling Contractor."

February 16, 1954: Tues., 8:00 P.M., Hancock Foundation Lecture, Hancock Auditorium, U.S.C. Dr. Hiroshi Niino of the University of Tokyo will speak on "Submarine Oil and Coal Fields of Japan."

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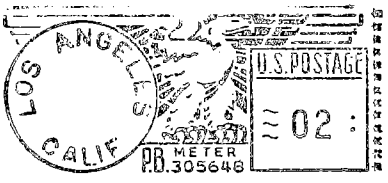

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PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 March 1954 No. 3

ASSOCIATION ACTIVITIES

A.A.P.G. FORUM

Professor David Griggs of the Institute of Geophysics at U.C.L.A. was guest speaker at the Forum Meeting held February 15, 1954. Professor Griggs spoke on the subject, "Hypotheses of Mountain Building," in which he summarized some of the currently debated hypotheses of continental origin and structure.

In discussing the thermal contraction theory, he presented convincing evidence that there cannot have been, during the history of the earth, enough thermal contraction to have produced more than 1 per cent of the earth's mountain and continental structure. Some interesting numerical data appeared as a by-product of these calculations. A calculation involving some elementary relations and based on recent measurements of the present rates of erosion indicated that the half-life of above-sea-level structures is in the order of 20 million years. In other words, it is calculated that a plateau will be eroded by normal erosional process to half its elevation above sea level in about 20 million years. In this calculation, both the actual erosion and the rise of the eroded structure to maintain isostatic equilibrium are taken into account. He pointed out that the earth probably has not been cooling through geologic time but in actuality, heating.

Professor Griggs pointed out that polymorphic transitions could only be taking place at the Mohorovicic discontinuity or at the surface of the core since these are the only two known discontinuities in the interior of the earth of sufficient magnitude to produce the necessary contraction effects. In order to produce the required amount of contraction the Mohorovicic would have to be traveling downward at a rate so large as to be completely untenable.

Recent data on heat flow through the earth's surface has led to the conclusion that it is substantially equal in continental areas and in ocean areas. Professor Griggs presented in some detail a hypothesis proposed by Rubey in which continental material is presumed to form by selective fusion or fractional crystallization in partially molten local areas underneath the continents. This process is auto-catalytic since it is more likely to occur in the regions of lower temperature gradient which underlie the continents.

Professor Griggs also commented on theories of deep focus earthquakes proposed by some of the contractionists. His comments were based on recent experiments conducted at the Institute of Geophysics in which rock samples were stressed to the point of failure under pressures of 5000 atmospheres. These experiments had been conducted less than two weeks prior to the meeting and represented a significant milestone in the study of the high pressure behavior of solids. Both theoretical and experimental evidence would indicate that deep focus earthquakes cannot represent the conventional type of fracture in solids. Only through the presence of lubrication in the fracture plane could there be a net release of stress through differential movement of the material. It would seem that deep focus earthquakes are more probably associated with a failure in which local melting occurs and is propagated in a chain reaction along a slippage plane. The strength of the material is, however, not significantly affected at the "failure" plane. Additional adjustments in the medium required by this theory can be used to explain aftershock phenomena.

S.E.G. LUNCHEON MEETING

The monthly luncheon meeting of the S.E.G. was held at the Biltmore Hotel. Mr. W. T. (Bill) Griswold, manager of the Mining Contract Geophysical Department of United Geophysical, gave an interesting account of a phase of geophysical work new to many of us engaged exclusively in oil finding (or huntin'), that is, mining geophysical exploration. Two methods were dealt with, magnetic and electrical. Along the magnetic line, a new portable truck-mounted magnetometer has been developed that is secured to a boom projecting about 15 to 20 feet out from the rear of the truck, with compensating magnets to cancel out the truck's magnetic field. Comparison of the profiles of this instrument with the airborne and the common, hand-operated magnetometer showed it to be more sensitive. It apparently is also less expensive than the airborne method and is considerably faster than the hand-operated magnetometer. According to Mr. Griswold, a full day's work by the hand method can be accomplished in three minutes by the truck mounted "no mag" as it is called. Costs run around $5.00 per mile for short-term surveys with probable less per-mile cost for surveys extending over longer periods of time.

The second method illustrated was the electrical method where current, by means of a generator, is applied to the ground and two inductance coils, one moving ahead of the other, at specified locations measure the return current from the ground. Any buried conducting body passed over is reflected in higher readings on the lead coil than the trailing one and this differential is then plotted up to show the location and extent of the body. By means of the gradient or contour line spacing across the area the direction and approximate dip of the conducting body can be computed. A three dimensional plastic model of a copper ore deposit located by this method was exhibited, which illustrated the close correlation between the location and attitude of the ore body with that predicted from the survey. A core hole drilling rig closely follows the survey to check their findings and aid in the interpretational work. Sensitivity is limited to about 400 feet beneath the surface. A four man crew operates the equipment in the field at less expense than a comparable geophysical crew in the oil industry. Mr. Griswold's talk was interspersed with some interesting color slides showing the field experimentations in readying the equipment for commercial use.

With further work and improvement, particularly in regards to depth penetration, these methods should find wide use in the mining industry, particularly in finding faulted extensions of known ore bodies and also in discovering new ore bodies that may lie close to the surface.

SAN JOAQUIN CHAPTER MEETING

Mr. Vic Church, geologist for the Oceanic Oil Company, presented a paper to the San Joaquin Valley Geological Society at the monthly dinner meeting February 9 at the El Tejon Hotel entitled "Occurrence of Oil in Non-Marine Beds in the San Joaquin Valley" The paper was co-authored by Jack Beach of Oceanic and was prepared for the national A.A.P.G. meeting and given before the local group in a preliminary form for criticism and comment.

For purposes of this report, non-marine beds were defined as those "not full-marine or brackish marine". Of the four billion barrels of oil produced to date in the San Joaquin Valley, approximately 1,090,000,000 barrels have been recovered from non-marine beds. The principal non-marine producing formations, their total production to date, and remaining reserves are as follows:

	Millions of Barrels	
Formation	Produced To Date	Remaining Reserves*
Kern River-Chanac	506	120
San Joaquin	475	240
Tulare	85-1/2	57
Zilch	23	25
Walker	1	1-1/2
Tecuya	1/2	?

*Proven recoverable reserves

Tecuya Formation

This formation is 500' thick in the DK area, the lower 200' probably being marine. It is mainly Oligocene in age but probably ranges up into the lower Miocene. North of the DK area the Tecuya interfingers with marine beds of Zemorrian and possibly Refugian age. The oil recovered is 32°- 34°.

Walker Formation (East Side)

The Walker was first described in 1927 and is characteristically land laid, consisting mostly of greenish sands and silts. It is equivalent, in part, to the Vedder and rests largely on basement complex. The oil recovered is 14°- 16°.

Zilch Formation

The Zilch is thickest (over 3000') south of Raisin City and becomes predominantly marine south and southwest of that point. At Coalinga and Kettleman it is represented by 150' to 450' of upper and lower Variegated and becomes entirely marine west of the Kettleman syncline. The formation thins somewhat over the productive areas and the percentage of sand there (30 - 40 percent) is less than in the immediate surrounding areas. The Zilch produces gas at Gill Ranch and Chowchilla and 16°- 38° oil at Raisin City, Camden, etc.

San Joaquin Formation

The San Joaquin formation is limited by the Mya bed at the top and the Mulinia bed at the bottom. The top is an unconformity. Its age is generally considered to be Pliocene but it also extends upward into the basal Pleistocene. The formation is dominantly lacustrine with brackish water affinities. Areally, the central part of the deposit is lacustrine and the fringes are fluviatile. The oil, of 16°- 40°, is thought to have been trapped on growing highs along the west side of the valley. Gas is found in the formation in recent highs. Some palentologists consider the fauna of the formation to be marine. The authors maintain the forms such as Amnicola, Mya, Scalez and Discorbis could attain fresh water affinity. They also cite a well on the West Side which completely cored the formation without encountering any marine beds.

Kern River-Chanac Formations

The Kern River was described in 1905 and the Chanac in 1915. At its type section near Comanche Point, the Chanac is non-marine and rests on marine Santa Margarita sand. The Kern River and Chanac are separated by a finger of marine Etchegoin, where it is present. The Kern River is thought to be equivalent to the Tulare and San Joaquin. The oil occurring in the Kern River-Chanac appears to have originated in the outer, more brackish facies. Faulting plays an important part in entrapment of oil in these formations.

Tulare Formation

The Tulare, found along the West Side, is terrestrial in origin, being typical playa deposits. The authors believe that the oil found in the Tulare could not have migrated from older marine beds and is continental in origin.

Areas for Exploration

(1) The Zilch area has hardly been touched. We must sharpen our focus to find new oil in it.
(2) San Joaquin area - more oil should be found in the SE Sunset-Buena Vista Hills area.
(3) Tulare - there are numerous shows along the West Side and a development program is under way at Midway-Sunset.

HANCOCK FOUNDATION LECTURE

On February 16, Dr. Hiroshi Niino of Tokyo College of Fisheries gave a very interesting talk on "Submarine Oil and Coal Fields of Japan" as one of a series of the University of Southern California Geology Department-Allan Hancock Foundation Lectures. Since the war the Japanese have had to find new supplies of fuel so an effort has been made to develop the off-shore resources. In this work Niino has been very active, obtaining about 10,000 sea floor samples for making detailed geological maps. From these maps the interpretations of stratigraphy and structure have permitted the outlining of new Paleogene coal fields off Kushiro, Joban, Shimonoseki, and extensions of older ones off Nagasaki and Ubi. Drifts have been driven from shore out as far as 2000 meters and coal is now being mined. Submarine oil fields in Neogene strata were located by geological mapping and by plotting positions of oil seeps and gas bubble areas. The most promising areas off regions of folded rocks in northern Japan near Niigata, Akita, Aomori, Hakodata, Wakkinae, and Sagara. Owing to the well known high cost of off-shore drilling, these areas have not yet been tested by the drill.

LUNCHEON MEETING

Mr. George Kribbs, Consulting Geologist, was guest speaker at the monthly luncheon meeting at Rodger Young Auditorium on February 4th. With the aid of numerous color pictures, Mr. Kribbs presented an interesting talk on the topic "A Cruise In The Norwegian Fjords".

Mr. Kribbs visited the Norwegian Fjords on a clipper ship out of Harwick, England. From England the ship went across the North Sea to Bergen, Norway, which served as the starting point of a 1200 mile trip through the Fjords. These Fjords were scoured out by the great Pleistocene glaciers which completely covered the Scandinavian Peninsula. The deep channels carved by the moving ice are now submerged beneath the level of the Atlantic Ocean. Large boats are able to travel inland as far as 160 miles through these narrow, mountain-girded channels or fjords.

A trip through these fjords, which are found all along the coastline of Norway, reveals a great deal of somber, yet beautiful, mountain scenery. Waterfalls are especially numerous, cascading from the overhanging cliffs.

Mr. Kribbs was genuinely impressed by the friendly, blond inhabitants of this country, who never annoyed him by attempting to sell anything. There is very little topsoil in Norway due to the action of the glaciers, therefore, most of the people earn their living by fishing.

The speaker closed his entertaining program with a series of pictures taken of the extreme northern part of Norway, which is the home of the Laplanders and their herds of reindeer.

FALL MEETING

President Harold Rader has announced the appointment of Loyde Metzner, Signal Oil and Gas Company, as General Chairman of the annual Pacific Section Convention. Loyde has secured the services of Tom Baldwin, Monterey Oil, as Program Chairman. Further appointments will be announced soon.

Both Loyde and Tom need and deserve the full cooperation of the Pacific Section in order that we may have another successful meeting.

NATIONAL CONVENTION - 1955

The annual convention of the A.A.P.G. will be held March 26 - April 1, 1955 in New York.

L. G. Weeks is Technical Program Chairman and Graham Moody is Pacific Coast representative for the program committee. The program committee has issued an announcement of their plans for the convention. The theme is "Oil--The Habitat of Oil in the Sedimentary Basin". The committee hopes to secure papers on this subject covering most of the important producing basins of the world. Papers on areas or regions not yet developed, or papers on other geologic topics will be gladly considered for the program if they are of outstanding interest and otherwise appropriate.

Any communications concerning the program or proposed papers, or requests for further information will be welcomed by the Technical Program Committee, and for those in this area, should be directed to: Graham B. Moody, Standard Oil Co., 225 Bush Street, San Francisco 20.

COAST GEOLOGICAL SOCIETY

Manley L. Natland and William C. Bishop will talk on the "Coastal Area of Southern Arabia" at the monthly meeting of the Coast Geological Society, to be held at 7 P.M., March 9 at the Miramar Hotel, Montecito. The talk will be illustrated by color slides and movies. Reservations should be sent to Spence Fine, Box 150-R, Ojai, California.

Yes Sir, I would rather have gone to work for one of the majors, but Piddling Oil Co. offered me $10,000 to start, a new car, and a membership here at the Petroleum Club so I couldn't refuse....

This month we introduce the work of a new cartoonist, Bob Sanem of the Standard Oil Company. Harold Sullwold, who has ably filled this post for the past seven years, is currently teaching and studying for his doctorate at U.C.L.A. and is, as he puts it, "snowed under". Incidentally, one of the hardest tasks for a cartoonist is concocting ideas and situations. It would be appreciated if anyone having such ideas would pass them on to either Bob Sanem or the Editor.

CONVENTION TRAIN

Transportation Chairman Homer Steiny announces that the passenger list for the Geologists' Special, leaving for St. Louis on April 9 at 1:30 P.M., includes at press time the following members: John Curran of Honolulu; Milton Lachenbruch, Robert Bennett, Paul Day, Eric Phillips, L. I. Brockway, Robert Johnson, James Benzley and Gordon Bell of Western Gulf; Kemp Barley, of Baroid; Andy Bengston, Harold Rader, John Ruth and Mr. & Mrs. Bill Barbat of Standard; John Loofbourow and Bob Maynard of Sunray; Mr. & Mrs. Milton Loy and Mr. & Mrs. F. L. Bryan of Schlumberger; S. C. Lines of California Standard in Calgary; Dewitt Taylor, U.S. Armstrong, H. L. Kach, D. F. Fears of Shell; Mr. & Mrs. A. A. Weymouth of American Independent Oil; Mr. & Mrs. Tom Rothwell of Richfield; Mr. & Mrs. Loren Snedden of Intex; Harry Whaley of T.W.A; Mr. & Mrs. John Beach, Mr. & Mrs. Fred Porter, Mr. & Mrs. Fred Keller, Mr. & Mrs. Vic Church and Mr. & Mrs. Ainslee Bell of Oceanic; Henry Salvatori of Western Geophysical.

TREASURER'S LAMENT***

From the tone? of some comments made by members who received a recent dun for dues, an explanation is in order. Dues are usually paid at the fall convention. For those who cannot make the convention notice is published in the P.P.G. for three months. Final notice is mailed to the individual in February so that the mailing list may be corrected for March publications.

U.S.C.

The first monthly Geology Symposium was held on the U.S.C. Campus on Monday evening, February 22.

Don Fissell gave a review of Ph. H. Kuenen's paper in the Bulletin G.S.A., Vol. 64, No. 11, entitled "Origin and Classification of Submarine Canyons". Yvor Smitter reported on a survey of the Southern California coast made to determine the extent, physical characteristics and origin of marine "warm spots".

R. E. Stevenson then discussed the "Recent Evolution of the Shoreline of the Los Angeles Basin". He pointed out that at the beginning of Recent time and with the level of the sea some 150 feet lower than at present, the shoreline of the Los Angeles Basin had several features quite different from those known today. In gross aspects it was straighter, being approximately at the present 25 fathom line opposite Santa Monica, Long Beach and Huntington Beach; and with the first terrace of the Palos Verdes Hills under water and perhaps the first terrace of the San Joaquin Hills. It was indented at three places with embayments similar to that at Newport Beach today. The level of the sea rising from the beginning of Recent time increased the tempo of erosion in regions of unconsolidated material so that the Los Angeles Alluvial Plain became cliffed in several places. Although there were fluctuations in the rate of rise of sea level and likely some regressions, the overall rate was relatively rapid until 250 to 300 years ago. The tempo of erosion began to slow and features such as barrier islands and marshes began to form. Those in the Playa del Rey area formed first followed by the Long Beach lagoonal marshes and finally, some 100 years ago, the barrier islands and marshes in the Huntington Beach and Newport Beach regions. About 150 years ago, the dominance of erosion ceased and deposition became more important, the tempo of deposition being rather rapid. There is today a trend toward the straightening of the gently embayed shoreline. Diastrophism has, of course, played its part in the developmental process.

EVENING SYMPOSIA
DEPARTMENT OF GEOLOGY, U.S.C.

A series of symposia has been scheduled for the remainder of the semester covering the following general geologic topics:

March 15, 1954 - Stratigraphy & Paleontology
April 19, 1954 - Sedimentation & Petrology
May 10, 1954 - Areal Geology & Geomorphology

Each symposium consists of a series of papers presented by graduate students of the Department of Geology in the fields of research in which these students are engaged. The meetings have been scheduled to begin at 8:00 P.M. on the listed dates. Details as to the precise location of each symposium may be obtained from the Geology Department Office, Room 402, Bridge Hall, University Park. Telephone Richmond 2311, Ext. 387.

COMING EVENTS

The Northern California Geological Society plans a field trip to study the Eocene and Cretaceous section exposed on the West Side of the Sacramento Valley in Yolo County. Plans call for a dinner meeting Friday evening, May 7, 1954, at the Woodland Hotel at which time routes will be discussed and a guide syllabus distributed.

On Saturday, May 8, 1954, the group will assemble at the town of Madison, 10 miles west of Woodland, at 10:00 A.M. It is planned that a lunch stop will be made enroute and the party will return to Woodland late Saturday afternoon.

NOTICE

California Field and Pool names (effective January 1, 1954) issued jointly by Conservation Committee of California Oil Producers and Classification Committee of the Pacific Section of A.A.P.G. are now available. Anyone desiring copies, please write to:

M.T. Whitaker
General Petroleum Corp.
P.O. Box 2122, Terminal Annex
Los Angeles 54, Calif.

NEWSLETTER STAFF

The current hysteria in the Basin and Range area has occasioned temporary changes in the Newsletter Staff as Les Schultz, Bibliography Editor, General Petroleum Corporation, and Ernie Lian, Assistant Editor, Ohio Oil, have departed for the wilds. Until they return, Vic Smith, General Petroleum Corporation, has replaced Schultz and Bill Kennett, Superior, is replacing Lian.

PERSONAL ITEMS

Parker Trask has just returned from a trip to Egypt where he has been touring the desert looking for minerals for the Egyptian Government on behalf of the U.S.G.S.

Jacob "Jake" Bruynzeel has joined the geological staff of the Honolulu Oil Corporation at Santa Barbara, effective March 1, 1954.

W. C. "Bill" Bishop continues his travels for Richfield Oil Corporation. His next move will be to Nevada.

Tide Water Associated Oil Company's entry into Nevada exploration was marked by a two-day areal reconnaissance trip with Hank Neel as pilot and Bill Cortright, navigator.

Two of Standard Oil Company's ex-Nevada geologists apparently maintained sufficient interest in that area to investigate Shell's recent activity at their own expense. It is rumored that the cost of the trip was greatly reduced by contributions of the more fortunate geologists. Undoubtedly, these names will appear on numerous expense accounts.

Bob Nesbit, M.J.M.& M., attended the A.A.P.G. Convention, Rocky Mountain Section, in Albuquerque, New Mexico.

Lou Kemnitzer With Kemnitzer, Richards & Diepenbrock is reported to be on the high seas returning from England where he and his family have been visiting with his wife's parents and relatives for the past month or so. Lou is scheduled to return to the harness and work-a-day life about March 15.

"Bettin" Bill Castle, formerly Texas Company Scout, has donned the blue and gold of the Richfield Oil Corp. Bill is now the Richfield Scout in the Los Angeles Basin and Coastal District.

Joe Hudson, former geologist for Humble Oil and Refining Co. has been elected Vice-President of the Monterey Oil Company in charge of Exploration and Production and will be located in the company's offices at the Statler Center. Joe is filling the vacancy left by the resignation of J. H. Abramson, Vice-President in charge of Drilling and Production. Don Hare, formerly Monterey's Drilling and Production Superintendent in the San Joaquin Valley is moving to Long Beach to assume a similar position there.

Congratulations to V. M. "Vic" Smith, General Petroleum Geologist at Los Angeles, and Charlene Galloway who were married February 14 at the Rosewood Methodist Church in Los Angeles. Being married on Valentine's Day is one way to make sure to remember your anniversary date, not to mention making the annual box of candy do double duty. The newly weds plan a belated honeymoon trip to Charlene's home in Missouri. Vic is in training, trying to slim down so he can really wow his new relatives. He is having some success, too.

Word comes from Lima, Peru that Bill Greenwalt, Union Oil Company geologist is thoroughly enjoying his stay there. He has just finished his first well and about to begin on the second. Mrs. Greenwalt is enjoying her new found leisure time living the life of Mrs. O'Reilly what with domestic help available at $50.00 per month

Jack Cook, formerly with Standard Oil Company of Texas, joined the geological staff of the Union Oil Company at Santa Paula, effective March 1.

Miss Bea Landry, Tide Water Associated Oil Company's popular secretary is deserting the oil industry and taking up ranching. She recently announced her engagement to Mr. Frank Coit a rancher from Fresno. Her new specialty will be cattle, cantaloupes and cotton. The wedding is scheduled for late spring or early summer. It is reported that the airlines are bemoaning the loss of one of their best customers.

Cleve Bowles, Signal Oil and Gas geologist at Calgary, was seen in the candy shop in Los Angeles shortly before Valentine's Day.

Dick Ballantyne and Bob Willis of General Exploration Company are at cross-purposes regarding salvage methods on their C.C.M.O. #2, in which the 7" is cemented top and bottom, but is free in the middle. Dick, who was brought up on tile benders and steam buckets, wants to use a pipe wrinkler, but Bob favors cutting the pipe at the lower free point and pulling it inside out like a sock, after which it can be used for flush-joint liners as the collars will be on the inside. Any constructive suggestions will be welcomed.

Homer Steiny reports that he recently visited Ralph Arnold at the Santa Barbara Hospital, Tuberculosis Building, located two miles west of town on the highway. Ralph has gained 10 pounds, feels fine and welcomes men who are in from the rocks for a short chat during visiting hours which are 10 - 11 A.M. and 3 - 4 P.M.

John and Beverly Curran, Honolulu, have purchased a five acre ranch at Santa Barbara. Their new address is 1010 Mission Canyon Road, Santa Barbara, a few leagues past the Vander Hoofs.

Hanford "Bulldog" Drummond, Union Oil Company in Canada is spending six weeks in the Union's Santa Fe Springs office and reportedly is enjoying our winter weather.

Bob Lindbloom, Standard Oil Company geologist at Bakersfield recently presented a paper complete with slides and movies on the Geology of California to the Presbyterian church at Bakersfield. There seems to be a new trend in the interest of geology.

John Aglesby, former Scout for Continental Oil Company at Bakersfield, left Continental to assume his new position as Scout for the Monterey Oil Co. in the San Joaquin Valley, effective February 15, 1954.

Quentin Moore, General Petroleum Corporation geologist at Bakersfield, has been in bed for two weeks with an attack of San Joaquin fever. We hope his convalescence period will be of short duration and not too confining.

There seems to be a mass exodus of geologists from California to the Nevada-Arizona area recently according to a report by Harvey Lee, Union Oil Co. Scout. Having lunch at Ely, Nevada is like Homecoming Week at the Petroleum Club.

NURSERY NEWS

Bill and Odette Harsley, Seaboard Oil Company Scout at Bakersfield announced the arrival of their new daughter, Lorraine Catherine, born February 12, 1954.

CALENDAR

DISTINGUISHED LECTURE SERIES

Dr. Grover Murray, Professor, Louisiana State University Council of Geology at Baton Rouge, will deliver a series of lectures before A.A.P.G. Organizations on the West Coast. His subject will be "Geology and Oil Accumulation, Central Gulf Coastal Plain". Following is a list of dates and places:

March 8, 1954:	7:30 P.M., (Pacific Section A.A.P.G.) G.P. Auditorium, 612 South Flower Street.
March 9, 1954:	6:00 P.M. (San Joaquin Section Dinner Meeting), El Tejon Hotel, Bakersfield.
March 10, 1954:	Stanford University, time and place to be announced.
March 12, 1954:	Northwest Geological Society, Governor Hotel, Olympia, Wash.

March 9, 1954: Tues., 7:30 P.M., Coast Geological Society dinner meeting, Miramar Hotel, Montecito. Mr. Manley L. Natland and William C. Bishop will present a general discussion on "Coastal Area of Southern Arabia". The talk will be illustrated with color slides and movies. Wives are invited.

March 11, 1954: Mon., Noon, S.E.G. luncheon, Biltmore Hotel, Los Angeles. Dr. Harrison Brown, Professor of Geochemistry, Geological Department, California Institute of Technology, Pasadena, will discuss "Age Dating of Rocks". Contact Forrest Lambrecht, The Texas Co., for reservations.

March 11, 1954: Thurs., 6:30 P.M., A.I.M.E. Junior Group, Monthly Dinner Meeting, Turf Club, corner Anaheim Telegraph Road and Lakewood Blvd. Mr. J. K. Story of the V. E. Kuster Company will discuss "Surveys of Presentation of Outstanding New Magnetic Detector Surveying Methods". The second speaker of the evening will be Mr. Ed Scown of Homco of California who will discuss "Application of Directional Drilling Methods".

March 15, 1954: Mon., 7:00 P.M., A.A.P.G. Forum Meeting, G. P. Auditorium, Los Angeles. Two lectures are scheduled. Dr. W. H. Easton, Professor of Geology, University of Southern California, will present "Carboniferous Faunas and Formation of Montana" and Bill Pemberton will deliver a Kodachrome illustrated talk on his second trip to Africa.

April 1, 1954: Thurs., Noon, A.A.P.G. luncheon meeting will be held at the Rodger Young Auditorium, Los Angeles. Speaker will be announced at a later date.

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PACIFIC PETROLEUM GEOLOGIST
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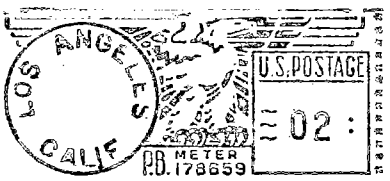

Mr. F. R. Neumann
381 E. 4th St.
Chico, Calif.

Form 3547 requested.

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 April 1954 No. 4

ASSOCIATION ACTIVITIES

DISTINGUISHED LECTURER

On Monday evening, March 8, Dr. Grover S. Murray, Professor of Geology at Louisiana State University, was guest speaker at a meeting held in the General Petroleum Auditorium. Dr. Murray, currently on tour for the A.A.P.G. in connection with the Distinguished Lecturer program, presented a very interesting, well organized talk to a large audience on "Geology and Oil Accumulation, Gulf Coastal Plain".

The Central Gulf Coastal Plain includes an area bounded on the west by Dallas and Houston; on the east by Macon, Georgia, and Tallahassee; on the north by the Ouachita Mts. and on the south by the Gulf of Mexico. The basement rocks are Paleozoic and Pre-Cambrian in age. 40-45,000 feet of Mesozoic and Cenozoic continental, marginal and marine sediments rest upon the truncated, south dipping surface of the basement rocks.

The Ouachita and Appalachian lines of folding extend under the coastal plain and may intersect altho subsurface data indicates a fifty mile gap between them. The Coastal Plain is an area of vertical movements only, with no compressive forces having acted. The only known thrusting is associated with salt domes and is rare. The vertical movements are due to isostatic adjustments caused by density differences in sediments, intrusion of large igneous bodies or of very large bodies of salt. An almost continuous zone of en echelon faulting, generally down to the coast, is peripheral to the Coastal Geosyncline. This zone, which includes the Balcones, Mexia-Luling, Arkansas and Pickens-Quitman-Gilbertown fault zones, from west to east, is coastward from the Marathon-Ouachita and Appalachian trends of folding. The present geosynclinal axis trends east-west and is at the present coast line. A seismic line completed this summer between Yucatan and the coast just south of Houston has been interpreted to indicate that about 18,000 feet of sediments are present under the Sigsbee Deep, the deepest part of the Gulf of Mexico. 3,000 feet of sediments are present at Yucatan.

Salt domes are common in the area and were emplaced by forces due to density differences in surrounding rocks. The source of the salt is thought to be in the Jurassic. It has been computed that at least a 2000 foot bed of salt must be available at depth for salt dome of any vertical magnitude to form.

The Mesozoic and Cenozoic deposits constitute a great, roughly lenticular mass of inter-tonguing, primarily arenaceous, deltaic deposits and, predominantly argillaceous-calcareous marine sediments. These sediments were laid down in irregular arcs or axes of maximum deposition (depocenters) along the north shore of the ancestral Gulf during each sedimentary epoch. The centers of deposition shifted from north to south in the lower and middle Cretaceous; shifted north again during the upper Cretaceous and gradually moved south during the Tertiary.

The Jurassic deposits are clastic in the north and grade southward into evaporites and limestones and dark shales. The lower and middle Cretaceous exhibit the same lithic trend, with deltaic "red-bed" clastics to the northeast and shale and lime facies to the southwest. The upper Cretaceous is mainly shale and limestone although some sandy facies occur in the eastern part of the area. The upper Cretaceous is one of the most important oil producing series of the area. Limestone reefs occur in this series on old highs and are mainly reservoirs for gas.

The Tertiary strata consist mainly of a cyclic interfingering of sandy deltaic deposits from the north with marine shale and limestone beds from the south and reach a total thickness of approximately 25,000 feet. Of the series, only the Oligocene is predominantly marine throughout the basin.

Commercial production of oil or gas has been obtained from Ordovician, Mississippian, Pennsylvanian, Jurassic, Cretaceous, Tertiary and Quaternary strata. Reserves are about four billion barrels of oil and 35 trillion cubic feet of gas.

Major accumulations are controlled by both structure and stratigraphy and are most common in areas containing 30 - 50 per cent sand. Common structural types effecting accumulation are domes and anticlines, faulted or unfaulted; normal faults, downthrown on either the coastal or landward side; structural nosings and structural terraces. Most structural anomalies increase in size with depth. Stratigraphy effects accumulation as a result of porosity variations and wedge-outs, especially in updip or downdip directions and in association with structural anomalies. Variations in permeability and porosity often control the local occurrence of production in closed structures and in some instances account for oil accumulation in the absence of structure.

Fifteen billion barrels of oil and 70 trillion cubic feet of gas have been discovered in the Central Gulf Coastal Plain. The known minimum sedimentary volume of the area is 375,000 cubic miles. Therefore, about 40,000 barrels of oil have been discovered per cubic mile. This figure is four-fifths of L. G. Weeks' estimated potential total oil discovery figure of 50,000 barrels per cubic mile, and may indicate that appreciably more oil will be discovered in the area.

If hydrocarbons are present in similar quantities in the possible 350,000 - 600,000 cubic miles of offshore deposits in the Central Gulf Region, estimated potential reserves in the area could be 14 - 25 billion barrels of oil and 70 - 125 trillion cubic feet of gas. Not all of this can presently be considered exploitable.

Dr. Murray included an excellent and very legible series of slides with his talk showing the structure, thickness and facies distribution of the various rock units and the structure of numerous typical oil fields of the area.

A.A.P.G. FORUM

Two speakers were featured at the A.A.P.G. forum meeting on March 15 at the General Petroleum Auditorium.

Professor W. H. (Bill) Easton of USC opened the meeting with a talk on "Carboniferous Formations and Faunas of Central Montana". Field studies, sponsored by the USGS, were made in the Big Snowy Mountains of Montana, the nearest uplift to the Williston Basin in which part of the subsurface section crops out.

As originally defined, the Big Snowy group consisted, in ascending order, of the Kibbey, Otter, and Heath formations. Strata of the so-called Amsden formation overlying the Big Snowy group in central Montana are not continuous in outcrop with nor have been proved to be equivalent to Amsden strata of the type section. Paleontologic evidence shows that lower shaley strata of the so-called Amsden are in part equivalent to the Heath formation and that elements of the Chester faunas extend up into the upper carbonate strata of the so-called Amsden formation; therefore, extensive revisions of stratigraphic boundaries and names are under way.

Two distinct faunas are present. The well-known late Chester fauna of the Midcontinent constitutes the fundamental background of collections from the Otter and Heath formations. A second fauna is intermingled with the typical Chester fauna and may largely replace it in lower shales of the so-called Amsden. This latter fauna resembles the Tarussa and Steshevo (lower Carboniferous) faunas of Russia but contains some generic elements not thought to be represented in Paleozoic seas of the western United States until early Pennsylvanian time. Determining the age of the so-called Amsden strata, therefore, depends upon clear differentiation of the two Chester faunas from one Pennsylvanian fauna. The Sacajawea formation of C. C. Branson in Wyoming contains the Chester fauna which seems to have immigrated from Asia. Recognition of certain petroliferous sandstone lenses (once termed the Tyler sand) at the top if the Heath formation is facilitated by their association with the same immigrant fauna.

The oldest formation in the Big Snowy group that has been dated by fossils is the Otter formation, which is of Chester age. The youngest strata of the Big Snowy group may be Pennsylvanian. Professor Easton showed kodachromes of the type sections, of pseudo-structures caused by leaching of gypsum, and of outcrops of the lenticular sandstones.

The second speaker of the evening, J. R. "Bill" Pemberton, widely known consulting geologist and naturalist and formerly with Oil Umpire for California, gave an illustrated talk on "Wild Animals of Africa". Bill electrified his audience with sharp Ektachrome close-up shots of big game narrated in his inimitable sententious style. He included spectacular pictures of reticulated giraffes, tree-busting elephants, and mud-bathing hippopotamuses. Strictly enforced game conservation laws now in effect will insure bountiful hunting in Africa for future generations, according to the speaker.

S.E.P.M. MEETING

Professor W.H. Easton, Department of Geology, USC, spoke at the SEPM meeting on March 29 on the "Geology of the Illipah Quadrangle", in central Nevada. USC has conducted its summer field camp twice in this same area because of the thick and cleanly exposed stratigraphic section, diverse structures, and interest in nearby oil exploration in the past few years. The Illipah quadrangle is half way between Ely and Eureka and is about 40 miles north of the Shell-Eagle Springs Unit #1.

The section ranges from Devonian to Tertiary and totals about 10,000 feet. It contains Devonian limestone (3500'), White Pine shale (2750', mostly Mississippian), Diamond Peak quartzite (1300', lower Pennsylvanian), Ely limestone (1550', middle Pennsylvanian), Arcturus formation (more than 1000', Permian), and more than 500' of Cretaceous and Tertiary sediments and pyroclastics. Much attention has been devoted to the White Pine shale as a potential source of petroleum and to its middle member (Joana limestone) and to the Diamond Peak quartzite as potential reservoirs. Since the announcement of the oil showings in the Shell well, rather frantic activity has centered about the areas of post-Paleozoic sediments. In the Illipah quadrangle, these sediments consist mostly of reddish conglomerate and siltstone, light-colored tuffaceous lake beds containing siltstones and carbonates, brownish sandstone, and some black shale. Flows of basalt and rhyolite occur in the light-colored sediments. The post-Paleozoic unit crops out on valley floors and margins, on mountain passes, and as patches on the sides of mountains. It seems in part to have been deposited over much of the area and in part to have been restricted to the valleys. Much difficulty is encountered in differentiating the post-Paleozoic black shale and brown sandstone from White Pine shale and Diamond Peak quartzite.

Fossils from the white tuffaceous sequence near the CCC campsite prove that part of the beds are Cretaceous and part are Eocene. R. W. Brown has identified a cycadeoid (late Jurassic or lower Cretaceous) and J. B. Reeside has identified Protelliptio douglassi hamili (McLearn), Eupera onestae (McLearn), Reesidella powelli (Walcott), Gyraulus aff. G. vetermus (Meek and Hayden), Physa sp., and ostracodes; this invertebrate fauna indicates an age of about Kootenai (lower Cretaceous). From other white lake beds J. B. Reeside identified Goniobasis simpsoni Meek ?, Lymnaea cf. L. vetusta Meek, Australorbis spectabilis (Meek), and ostracodes; he suggests an age of about Bridger (Eocene) for this fauna.

Structurally, the area is moderately complicated. Several large north-south folds traverse the quadrangle. Some of these are isoclinal and locally are overturned. Some valleys are bounded by marginal faults and many other faults cross the axes of the main folds at about right angles. Some indications of thrust faulting and details of post-Paleozoic stratigraphy will be investigated further when the U.S.C. camp is held in the Illipah quadrangle again this coming summer.

As the second speaker of the evening, Mr. Paul Dudley, consulting geologist, favored the audience with a most interesting discourse on "Salient Features of South Africa". The material for this talk was gathered during a five-month visit last year in South and Central Africa. During this period, the speaker and his family traveled from Capetown northerly to about the equator then easterly to the neighborhood of Mombasa on the east coast. The subject matter of this talk however was limited to the area lying between Capetown and Johannesburg. Numerous excellent colored slides beautifully illustrated the cultural features of the area as well as the general topography and geologic features to be seen in this region.

Numerous geologic features were also investigated by Mr. Dudley in rocks ranging from Archeozoic to Silurian or lower Devonian in age. One of the most interesting exposures may be studied at Capetown where a thick section of Table Mountain sandstone, capped by glacial till, unconformably overlies highly altered pre-Cambrian granites, schists and slates.

The speaker also outlined the general structural trends of the region and presented expert photographic evidence of the influence of these trends on the topography as well as of individual outcrops of the various formations and unconformities to be seen in southern Africa.

A.A.P.G. LUNCHEON MEETING

Mr. Max Carman was guest speaker at the March fourth luncheon meeting at Rodger Young Auditorium. His well delivered talk entitled "A Summary of the Geology and Tectonics of Scotland" was interesting to geologists and Scotsmen alike. Mr. Carman graduated in 1948 from U.C.L.A. where he is now a Ph.D. candidate. The subject matter for his paper was obtained during the year he spent in Scotland under a Fulbright Grant.

Scotland is divisible into four major structural and physiographic units which give the country a prominent northeast-southwest "grain". Bordering on England is a complex anticlinorium called the Southern Uplands. Here are exposed highly folded Lower Paleozoic marine sediments of which the Old Red sandstone is a prominent member. The Southern Uplands fault separates this unit from the Midland Valley unit which lies to the north in the vicinity of Glasgow and the Firth of Forth. The Midland Valley reveals gently folded Upper Paleozoic volcanics and sediments. The latter contain rich coal measures and oil shales. The third structural unit is the Grampian Highlands which are bounded on the south by the Highland Boundary fault and on the north by the Great Glen fault. Here is essentially a great anticlinorium composed of complexly deformed metamorphosed sediments of unknown age. These rocks are the Dalradian schists and the Moine Series of schists and granulites. There are two suites of granitic intrusions: one is believed to be contemporaneous with the Caledonian orogeny which closed the Silurian and the other suite is older. The fourth structural unit is the Northern Highlands which extend from the Great Glen fault to Cape Wrath at the northern tip of the mainland. The Inner and Outer Hebrides may be considered to be a part of this unit. Archean gneisses, Moine schists, Paleozoic sediments and Tertiary volcanics occupy the exposures in the Northern Highlands. The most notable tectonic feature here is the Moine thrust which extends along the northwest coast, bringing Moine schists over Lower Paleozoic and Pre-Cambrian rocks.

Traditionally, geologists familiar with Scotland have thought that the Pre-Cambrian rocks in Scotland were deformed chiefly during the Caledonian orogeny by strong compressive forces acting in opposing northwest-southeast directions. Recent tectonic investigations call for an earlier and very strong deformation involving compression and consequent folding at nearly right angles to the Caledonian trends.

Mr. Carman likened the Great Glen fault, the surface trace of which is marked by an outstanding defile known as Great Glen, to our San Andreas fault. The fault has been studied in detail by W. Q. Kennedy who presents a strong case for 65 miles of lateral displacement from such evidence as correlation of Caledonian granites, of injection rocks and of metamorphic rocks. He also pointed to the possible offset of the Moine thrust by about the same distance. Mr. Carman said that the Scotch geologists are not ready to accept Kennedy's lateral displacement theory on the grounds that detailed mapping is difficult in the vicinity of the Great Glen fault where exposures are among the poorest in Scotland.

Mr. Carman closed his discussion by showing some very fine color slides illustrating some of the geology, physiography and colorful scenes in Scotland.

S.E.G. LUNCHEON MEETING

The S.E.G. held its regular monthly luncheon meeting on March 11 at the Biltmore Hotel, the regular abode for the get-togethers. Dr. Harrison Brown, Professor of Geochemistry at Caltech spoke on "Age Dating of Rocks" thru the determination of the rate of breakdown of radioactive substances.

The first age determination was made in 1909 using zircon as a source mineral for the quantitative analysis of the radioactive elements uranium and thorium and some of their decay products, principally lead and helium. Most of age determinations reported in textbooks are based on these and other experiments in the 1920's and 1930's. In 1939, the use of the mass spectrograph was pioneered, making accurate dating possible.

Nuclear research during the last war resulted in the refinement of techniques for analysis of extremely small quantities of decay products of radioactive elements so that an accuracy of less than 1 percent error is now possible. Unfortunately, the uranium-lead method cannot date any rock younger than 60,000-100,000 years old and the carbon fourteen method cannot date rocks older than 20,000-25,000 years, so with current methods an age gap exists. At present, as the rate of escape of helium from crystals has been determined, it appears that its measurement may fill the gap.

Attempts have been made to date the age of the earth. It is theorized that concurrent with the birth of the solar system, meteorites, both stony and metallic, were formed. The lead is mostly in the metallic types and the uranium in the stony ones. The lead has been isolated from the uranium since the beginning of the solar system and thus should have largely preserved its primeval state. Comparison of analyses of this so-called primeval lead and of lead we find in the earth today gives an age of 4.5 billion years for the earth, which agrees closely with estimates by astronomers.

Experiments are in progress to measure the amount of helium produced by the decay of one part per million of uranium in a carbonate seashell. If successful, this method will be of interest to oil men, not only for age dating, but for determining the source area of the sediments.

COAST GEOLOGICAL SOCIETY DINNER MEETING

Dr. Manley Natland, Coastal Division Geologist for Richfield Oil Corporation, was guest speaker at the Coastal Geological Society dinner meeting at the Miramar Hotel in Montecito on March 9, 1954.

Dr. Natland recently returned from a three-month trip to Southern Arabia where he and others had been investigating a concession jointly owned by Richfield Oil Corporation and Cities Service Company. While there, the group headquartered in a beach house owned by Sultan Said bin Taimur at Salala in the province of Dhofar, and made reconnaissance trips into the surrounding area.

Restricting his discussion to the geography and culture of the area and using numerous color slides and a motion picture for illustration, Dr. Natland introduced Coast Geological Society members and their wives to the coastal villages, the Qara Mountains, the Njed (Great Plain), and the Rub Al Khali (Empty Quarter, which is an area of wind blown sand hills).

BAKERSFIELD ACTIVITIES

Another spectacular annual free costume party was held by the Bakersfield Association of Petroleum Wives. A "Circus Days" theme brought on a rash of clowns, lion tamers, tattooed men and fat ladies. Those who so thoroughly enjoyed themselves owe their thanks to the Dance Committee under the able direction of the Charles W. Carys.

Copious refreshments were enthusiastically donated by an extremely large number of local Bakersfield service companies.

A capable magician who performed during the evening created many illusions including a trick with a glass of water which caused considerable consternation among those who could see.

Intex's Doug Wilson did a fine job of MC'ing the affair.

SELECTIVE SERVICE INFORMATION

Herschel L. Driver has been selected by the Executive Committee of the Pacific Section of A.A.P.G. to serve on a newly formed Selective Service Advisory Board for Northern California. This is in accordance with a recent request by the Office of Defense Mobilization that district advisory boards by set up for classifying engineers, geologists, chemists, etc.

President Rader announces that the Executive Committee will be most happy to select a capable geologist to serve on the Advisory Board for Southern California when it receives such a request from Selective Service.

NEW VICE-PRESIDENT

Pacific Section President Harold Rader announced that Tom Folsom, Honolulu Oil Corporation, has been appointed Vice-President to fill the expired term of Ted Lee, who has been transferred to Denver.

BAKERSFIELD OFFICERS

The new officers of the San Joaquin Geological Society, elected last November are:

President - Robert L. Johnston, Western Gulf
Vice-President - Horace Harrington, Superior Oil
Secretary-Treasurer - Charles Bishop, Intex Oil

CORRECTION

In the account of the S.E.G. luncheon on page 1 of the March 1954 issue of the Newsletter, the term "no-mag" should read "Mo Mag", a registered trademark of the United Geophysical Company, Inc., applied to its continuous recording mobile magnetometer.

UTAH FIELD TRIP

The Intermountain Association of Petroleum Geologists announce that they will hold their 5th Annual Field Conference August 26 - 28, 1954. Registration will be at the Mission Motel, Price, Utah on August 25.

The trip will leave Price on August 26 and pass through Colton, Clear Creek, Castledale, Hanksville, Teasdale, Escalante and end at Bryce Canyon National Park. Along the route, the members will study the geology and stratigraphy of the Clear Creek Gas Field, the north part of the Wasatch plateau, the San Rafael Swell, the north end of the Henry Mountains, the Teasdale anticline and the Aquarius plateau.

Those planning to attend the trip and wishing to receive further information should write to Henry H. Heikkila, Box 34, Salt Lake City, Utah.

PERSONAL ITEMS

Bakersfield Standard Oil geologists Jack Barr and Marshall Ayres took 4th place in a recent auto race put on by the Kern County Sports Car Association.

Ray Arnett, Richfield geologist who has been breathing the Los Angeles smog for some time is returning to the Bakersfield fold.

Les Herndon has joined Conoco as scout in their Bakersfield office.

Richfield geologist Gerald Knowles has left the Bakersfield office to join the madding crowd in Nevada.

Lanny Graff, Standard's scout in Bakersfield is in San Francisco at the University of California Hospital recuperating from an operation. Please come back soon, Lanny.

According to local Bakersfield publications, Evan Burtner, Standard Oil geologist, played the world's champion chess player to a draw in an open meet in Corcoran recently.

J. R. (Jack) Jackson, Humble Oil & Refining Company, Senior Geologist at Chico, has been sent to New Orleans for a one-year training session. He is reported to be camping on the Levee near the French Quarter until he can find suitable housing for his family. Mr. John D. Frick is now in charge of the Chico office.

Ida Dobler, Standard Oil Company geologist, underwent an emergency appendectomy at Hollywood Presbyterian Hospital on St. Patrick's Day, March 17. She is reported to be doing well and recuperating at home. She plans to return to work early in April.

Bell Petroleum Company have moved into their new offices in the Roosevelt Building and are currently shopping around for a good restaurant with reasonable prices in the downtown area. Their new address is 727 West 7th Street, Room 250, Los Angeles 17, Phone: MA 9-3143.

Deck Ford, with De Golyer-McNaughton in Spain, is reported to be reconnoitering in the Ebro River Valley area of the Pyrenees Mountains. The normal schedule is two days of field reconnaissance and five days recuperation in Madrid.

General Petroleum Corporation has moved their Sacramento office to Room 4, Center Building, 3382 El Camino Avenue, Sacramento. Bob Orwig gets his daily constitutional walking home for lunch each day.

V. L. Vander Hoof, Leo H. Moir and Robert F. Herron attended the G.S.A. convention in Seattle, Washington.

Geologists of Shell Oil Company's Ventura District and the Scouting Department have moved into new offices in the Gatzke Building, located at Shell's Chemical Plant.

Bill Yost, formerly a partner of Exploration Logging and recently a graduate student at UCLA, has joined Shell's Exploration Department at Ventura. His new address is P. O. Box 691, Ventura.

Ernie Lian, Ohio Oil Company geologist, was married to Bette Ann Johannes at Los Angeles, Saturday, February 13. The newlyweds had barely gotten settled at Apple Valley Inn when Ernie got a call to go to Arizona for a week to map all the undiscovered and unleased oilfields there.

Bill Bishop, Richfield's wandering geologist, has returned to the Southland to get acquainted with his family and to nurse his frostbitten "pinkies".

Harry Stuveling, Shell Oil Company scout, has transferred from their Ventura office to the Long Beach office at 2800 Obispo Avenue. He reportedly is enjoying the view from Pala house and the steaks at the Hilltop.

Elmer Hutchins, Shell Oil Company scout, formerly out of Santa Cruz, has joined the Easterly migration to Nevada. His transfer was effective March 15 to Ely.

During the recent Pacific Coast Conference basketball playoffs in Long Beach on the night of the geological forum meeting, U.S.C. grads were conspicuously absent while most of the U.C.L.A. alumni around these parts were learning about the geology of the Central Gulf Plain.

Overheard in one of our local pubs following the forum meeting was Frank Parker explaining to Grover Murray and Mason Hill the definition of a left lateral fault--When you go "down to the gulf" and lay on your left side while looking "up to the Mississippi River". Apparently left lateral faults were heretofore unknown on the Gulf Coast.

Seaboard Oil Company of Delaware has announced it will transfer its Western Divisional office from Los Angeles to Denver, Colorado. The new office will be headquarters for activities in the Western States, Rocky Mountain States and Canada. Temporary offices are being established in the Central Bank Building in Denver, with permanent quarters to be in the new Denver Club Building, scheduled for completion next November. Mr. A. W. Vitt, former Californian, will be in charge of exploration. Ted Lee and Ted Sheldon, formerly of the Los Angeles office, are among the first to be transferred to the new office.

Nat H. Mackevett, Shell Oil Company geologist has transferred from Sacramento to the Shell office at Long Beach, California. Nat was considered an "old timer" in the "gas business" and his smiling face and dry humor will be missed by many.

Bill Cunningham, Brazos Oil and Gas at Sacramento, is still hobbling around on a weak ankle after breaking it while showing his boys how an old man skis.

Sacramento landmen are back at work in the Sacramento Valley after spending a few days in Nevada. Art Nelson, Shell; John Reynolds, Texaco; and Herb Harry, Union, were among those seen out of State recently.

Charlie Guion, Humble Scout at Sacramento, swears that he will never stay at the El Adobe in Bakersfield until the shower walls are reinforced and the plumbing repaired. He does admit that the maid service is outstanding.

Continental Oil Company has moved into its new quarters at 1137 Wilshire Boulevard, Los Angeles. The phone number remains MUtual 5212.

NURSERY NEWS

Jerome and Georgia Petrie, Knox Geological at Los Angeles, announced the arrival of a son, Malcolm McFarland, born March 1st.

Mal and Barbara Robinson, General Petroleum at Ventura, their first daughter, Diane Virginia, 7 lbs., 3 ozs., born March 13, 1954. This is their second child.

Jerry and Mark Ganopole of Seaboard in Bakersfield have announced the arrival of a son, Lyle Dana, on March 23. The Ganopoles have 3 daughters.

A boy, Thomas Gregory, arrived January 25, according to proud parents Greg and Beverly Webb, Standard Oil in Bakersfield.

To Dick and Janise Darrow, Standard in Bakersfield, a boy--born February 28.

On the 6th of February 1954 Ernie Young, Geologist-Engineer of Tidewater in Bakersfield, personally assisted at the birth of his new son, David Ernest. This is an extremely interesting tale and should be heard first hand for full effect.

John and Hazel Schroeter, Peters Logging at Bakersfield, are the proud parents of 3-year old twin boys, Paul and Mark, adopted from an orphanage in Hildesheim, Germany (British Zone). Hazel flew to New York to meet the boys when they arrived via Scandinavian Airlines.

Jerry and Mimi Winterer, with the U.S.G.S. and U.C.L.A., announce the arrival of their third child, Wendy, on March 9, 1954.

Bob and Pat Brace, Standard at Sacramento, a girl, Martha Ann, born March 16, 1954.

Bob and Emy Jean Maynard, Sunray at Bakersfield happily welcomed their new little girl, 7 lbs., 6 oz. born on March 9.

Mike and Bernice Rector, Union Oil Company (our Personal News correspondent at Sacramento) welcome the arrival of their new son, Douglas Stephen, born on Valentines Day, February 14, 1954.

Bill and Lynn White, The Texas Company, Paleo Department, announced the arrival of their first son and second child, Davis Robert, on March 7, 1954. David weighed in at 8 lbs., 9 ozs.

Don't look now, but here comes Joe with that representative of Ajax Oil Co. that always shows up on his expense account.

The Texas Co. has made some changes in its scouting department in Los Angeles to cover the loss of Bill Castle to Richfield; Jack Merriam replaced Bill and Jack Denn, formerly at Sacramento, transferred to Los Angeles to fill in for Merriam.

John Gates, geophysicist, has joined the Western Gulf Oil Company staff in Ventura.

Bob Herron, Bob Paschall, Spencer Fine and Otto Hackel recently spent a week end on the Colorado River at Willow Beach. Rumor is that the fish hardly noticed their presence.

William Goth, UCLA grad, has joined the geological staff of Tide Water Associated in Bakersfield.

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Summary of Operations, California Oil Fields - January - June, 1953. Vol. 39, No. 1.

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"Rio Vista Gas Field, Isleton Area." C. H. Corwin, pp. 13-16.

"River Island Gas Field." C. H. Corwin, pp. 17-20.

"The Honor Rancho Oil Field." John F. Mathews, Jr., pp. 21-26.

TRADE JOURNALS AND MISCELLANEOUS MAGAZINES

Journal of Petroleum Technology
February, 1954. Vol. VI, No. 2.

"Liquid Fuels from Oil Shales--A Critical Review." A. C. Rubel, p. 9.

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March 8, 1954. Vol. 52, No 44.

"The Impossibility of Oil in Arizona." F. J. Gardner, p. 157.

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March 25, 1954. Vol. 51, No. 12.

"Will Tunneling Under the Ocean Be A Cheaper Way to Drill Offshore?" P. 25.

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March, 1954. Vol. 138, No. 4.

"Contouring is Important." E. J. Handley, pp. 106-107.

"Here's How The Ohio Oil Company Drilled the World's Deepest Well.". G. M. Wilson, pp 128-150.

World Petroleum
March, 1954. Vol. 25, No. 3.

"New Methods Aid Offshore Drilling." Pp. 62-65.

"Marine Exploration is Coming of Age." C. H. Johnson and J. W. Wilson, pp. 74-77.

CALENDAR

There will be no S.E.G. Meeting in April

April 6, 1954: Tues., 6:00 P.M. A.A.P.G. Dinner Meeting, Spanish Ballroom, Hotel El Tejon, Bakersfield. Mr. Addison Cate, Hancock Oil Company, will present an illustrated program: "A Geologist Looks at Europe." Wives are cordially invited.

April 6, 1954: Tues., 6:30 P.M. A.I.M.E. Dinner Meeting, Stockdale Country Club, Banquet Room, Bakersfield. Mr. Don Pendery of IBM Corporation will discuss "The Operation and Application of Electronic Computers to Oilfield Reservoir Problems."

April 8, 1954: Thurs., 6:30 P.M. A.I.M.E. Jr. Group, Pacific Petroleum Chapter. Regular Monthly Dinner Meeting, Turf Club, Corner Lakewood Boulevard and Anaheim-Telegraph Road. Members $3.00. Non-Members $3.50. For reservations contact Mr. J. B. Garten at L.B. 6-9918, or Mr. D. K. Hayward at TR-9271. "Operating Problems and Subsurface Analysis of the Wilmington Pilot Flood" will be discussed by Mr. T. A. Johnson, Jr., and Mr. David R. Johnson of L.B.O.D.

April 13, 1954: Tues., 7:30 P.M. Sacramento Geological Society Meeting, State Public Works Building, 1120 "N" Street, Sacramento. Paul P. Goudkoff and A. I. Safonov will present a "Four Dimensional Study of Sedimentation in Sacramento Valley."

April 15, 1954: Thurs., 4:00 P.M. Room 2250, Geological Building, Campus, U.C.L.A. Dr. Vincent Gianella, Professor Emeritus, Geology, University of Nevada, and Consulting Geologist, will deliver a talk on the Comstock Mining District of Nevada.

April 19, 1954: Mon., 7:00 P.M. A.A.P.G. Monthly Forum Meeting, Edison Auditorium, Los Angeles. John V. Byrne will deliver a Kodachrome illustrated talk on "South Pacific Reefs." In addition, there will be a report on the "Highlights of the A.A.P.G. National Convention."

April 20, 1954: Tues., 6:30 P.M. A.P.I. Dinner Meeting, Petroleum Club, Taft. *Mr. Hubert Ferry, Assistant to Vice-President of Union Oil Company, will discuss "Waste Water Disposal Problems." (*Speaker and subject not officially confirmed at deadline time.)

April 26, 1954: Mon., 8 P.M., Room 226, Founders Hall, USC. Mr. Don Gorsline will moderate talks by seniors and graduate students on Petrology and Sedimentation. They are, "Origin of Pegmatites" by Mr. Boush, "Metamorphism" by Mr. Gross and "Rafting of Sediments" by Mr. Simpson.

COMING EVENTS

May 12, 1954: Wed. S.E.G. Spring Meeting, El Tejon Spanish Ballroom, Bakersfield. Afternoon session at 1:30 P.M. Five geophysical papers will be presented --authors and subjects to be announced.

May 12 & 13, 1954: Distinguished Lecture Series. Dr. Fred Bullard of the University of Texas will present two lectures in California on "A Volcanic Cycle as Exhibited by Italian Volcanoes." On May 12, 1954, 6:00 P.M., he will appear before a joint meeting of the A.A.P.G. and S.E.G. at the Spanish Ballroom, El Tejon Hotel, Bakersfield. On May 13, 1954, 7:30 P.M., he will speak in the General Petroleum Auditorium, 612 South Flower Street, Los Angeles, before a joint meeting of the A.A.P.G. and S.E.G.

CONSTITUTION

PACIFIC SECTION OF THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Adopted September 1924
Amended November 1939
Amended October 1943
Amended November 1944
Amended November 1951
Amended October 1952
Amended November 1953

ARTICLE I -- Name

This organization shall be known as "Pacific Section of The American Association of Petroleum Geologists" and is hereinafter referred to as "this Section".

ARTICLE II -- Object

The object of this Section shall be to provide for discussion of subjects and problems coming within the scope of the profession and, by such intercourse, to promote the advancement and aims of The American Association of Petroleum Geologists as set forth in its Constitution and by-laws.

ARTICLE III -- Membership

Sec. 1. Any member, associate or Junior (Amend. Nov. 1951) of the American Association of Petroleum Geologists in good standing and residing in California, Oregon or Washington, shall be eligible to membership in this Section.

Sec. 2. Payment of annual dues of this Section by any person qualified as in Section 1 above, shall be deemed to be a declaration of membership in this Section.

ARTICLE IV -- Officers

Sec. 1. The officers of this Section shall be a President, a Vice-President, a Secretary and a Treasurer. During the absence of the President The Vice-President shall assume his duties. The duties of these officers shall be those customary for their respective offices. They shall assume these duties immediately following the meeting at which they are elected as hereinafter provided. Their term of office shall be for one year or until their respective successors are elected.

Sec. 2. There shall be an Executive Committee consisting of the President, Vice-President, Secretary, Treasurer, Retiring President, Editor of the Pacific Petroleum Geologist (Amended November, 1953), and one member selected by the San Joaquin Geological Society.

ARTICLE V -- Funds

Sec. 1. The dues of this Section shall be $2.00 per year, due and payable in advance.

Sec. 2. The funds of this Section shall be deposited to the credit of Pacific Section of the American Association of Petroleum Geologists in any national bank selected by the Treasurer. Whenever necessary the President shall certify to the authority of the Treasurer in administering such account by providing the depository bank with notice of the Treasurer's election and with a true copy of this Constitution.

The Treasurer shall have authority to issue checks against the bank account so established, on his sole signature, but in the event of his absence or incapacity to act due either to sickness or death, withdrawals or payments by check may be made on the signature of the President during the continuance of the absence or incapacity of the Treasurer, in which event the identity and authority of the President and the circumstances relating to the absence or incapacity of the Treasurer shall be certified to by the Executive Committee if so required by the depository.

ARTICLE VI -- Meetings

Sec. 1. Meetings shall be held annually and at other intervening times on call of the President.

Sec. 2. The time and place of the annual meeting shall be determined by the Executive Committee.

ARTICLE VII -- Elections

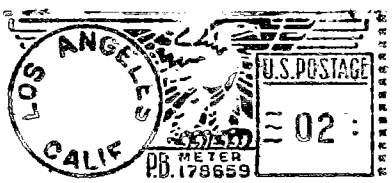
Sec. 1. The officers of this Section shall be elected by the membership present at the annual meeting in a manner determined by the Executive Committee.

Sec. 2. In matters pertaining solely to the business of this Section, all members of the Section may vote. In matters pertaining to the official business and the selection of business representatives or other officers of The American Association of Petroleum Geologists only active members of the Association shall be qualified to vote.

Sec. 3. This Constitution may be amended by two-thirds vote of all members present and voting at an annual meeting or by mail ballot and, in the event of the latter, two-thirds count of the ballots returned within ten days following their mailing to the membership.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

Vol. 8 No. 4



Mr. F. R. Neumann
381 E. 4th St.
Chico, Calif.

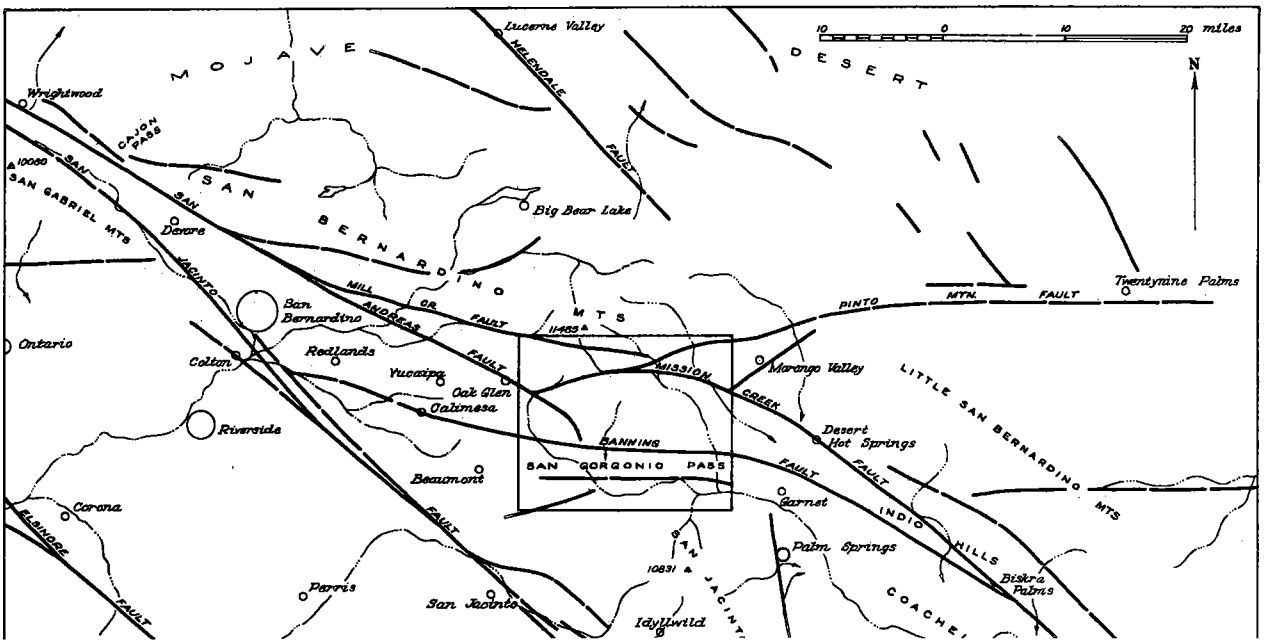
Form 3547 requested.

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 May 1954 No. 5

ASSOCIATION ACTIVITIES



A.A.P.G. LUNCHEON MEETING

Mr. Clarence R. Allen was guest speaker at the regular monthly luncheon meeting at Rodger Young Auditorium on April 1. He presented some interesting new ideas on an old fault in a talk on his thesis problem entitled, "The San Andreas Fault Zone in San Gorgonio Pass, California." Mr. Allen graduated from Reed College in Portland, Oregon as a physics major. He received his M.S. in geophysics at Cal Tech where he is now a Ph.D. candidate, majoring in geology.

The area that points to the age and displacement characteristics of the San Andreas fault has not been recognized. In San Gorgonio Pass a complex network of faults display several unusual features which lend an important contribution to the problem. These features are: (1) the absence of rift topography and lateral offsets of streams; (2) the San Gorgonio Pass is an east-west feature in contrast to the normal trend of the San Andreas fault; (3) the fault trace itself takes an abrupt change in trend; (4) seismic evidence points to prominent strain release by thrusting rather than strike-slip movement; and (5) the absence of great historic earthquakes epicentering there.

The San Andreas fault is a continuous feature for more than 400 miles northwest of San Gorgonio Pass, but within the Pass it curves abruptly southward and butts into the east-west Banning fault. The same family of crystalline rocks crop out on both sides of the fault. Fanglomerates on one side of the fault display similar rock types as those in place on the opposite side. Such evidence indicates that recent strike-slip movement probably has been less than one mile and does not demonstrate earlier lateral movement.

The Banning fault is a major fracture which delineates the north side of the Pass and extends for more than 50 miles from near Redlands into Coachella Valley. This fault is near vertical near Redlands and becomes a steep-north-dipping, reverse fault between Banning and Whitewater where it brings crystalline rocks up over the lower Pliocene (?) Imperial formation. East of Whitewater the fault is again near vertical. Since late Pliocene or early Pleistocene, at least 500 feet of vertical displacement has taken place on this fault and a right lateral offset of five miles is suggested. Quaternary gravels near Calimesa, however, show no recent movement.

The Mission Creek fault branches from the San Andreas fault north of Banning and is continuous to the southeast for at least forty miles. It is a major, north-dipping fracture and locally has a width of one-quarter mile.

The Pinto Mountain fault diverges from the Mission Creek fault and is probably continuous for more than fifty miles to the east where it marks the southern boundary of the north-west trending fault system of the Mojave Desert. The Mill Creek fault branches from the San Andreas fault north of San Bernardino and has guided erosion along deep linear valleys in the high mountains.

All the faults within the San Bernardino Mountains separate crystalline rocks of the same family. Hence, while lateral displacements of a few tens of miles are possible, no evidence was observed indicating such movements. Mr. Allen postulates that recent movements on both the Banning and San Andreas faults probably are caused by a stress system involving a generally north-south maximum stress, with the east-west least principal stress only slightly less than a vertical stress. In the vicinity of San Gorgonio Pass an older east-west line of weakness causes the east-west stress to become the intermediate stress so that thrust faulting predominates over strike-slip faulting.

It is believed from indirect evidence that the south side of the San Gorgonio Pass is bounded by a fault similar to the Banning fault which bounds the Pass on the north. It is probable that the present

physiography of the Pass is primarily due to Quaternary and late Tertiary displacements on these faults rather than due to erosion.

Mr. Allen accompanied his discussion with a series of fine color slides showing the physiography along the several faults.

GALICE QUADRANGLE GEOLOGIC MAP

Publication of a geologic map of the Galice quadrangle in Josephine County of southwestern Oregon has just been announced by the State Department of Geology and Mineral Industries, State of Oregon. The U. S. Geological Survey, which co-operated with the Geology Department, printed the map in five colors on a sheet measuring 50 by 30 inches. The map has a scale of one inch to the mile and is the first Oregon quadrangle to be printed in the recently adopted format. Authors are F. G. Wells and G. W. Walker, geologists with the Federal Survey.

The map embraces a gold mining area, and the locations of 95 gold lode and placer mines are shown. A brief description of the geologic formations and mineral resources appears on the sheet together with cross sections detailing the structure.

Copies of the geologic map of the Galice quadrangle may be obtained from the office of the Department of Geology and Mineral Industries in the State Office Building, Portland, or from the field offices in Baker and Grants Pass. Price is $1.00 postpaid.

U.C.L.A. GEOLOGICAL SOCIETY

Over one hundred practicing geologists and students attended the annual banquet of the Geological Society of U.C.L.A. at the Mona Lisa restaurant, Los Angeles, on April 22nd. Led by Geological Society President, A. Louis Canut, and ably M.C'd. by Dr. U. S. "General" Grant, an entertaining evening ensued.

Dr. V. L. Vander Hoof of Intex Oil Company spoke on "Early Geological Surveys Sponsored by Federal Government Prior to Formation of U.S.G.S. in 1879." Dr. Wm. C. Putnam, chairman of Geology Department, spoke on "Department of Geology Plans and Prospects." Concluding speaker was Bob Kurtz of Ohio Oil Co. who gave his personal reminiscences as a petroleum geologist working through the Rocky Mountains, then the Mid-Continent and finally to California. Kurtz stated that he found California geology the most difficult he had yet encountered in his long experience.

A.A.P.G. FORUM MEETING

Three speakers highlighted the Forum meeting held on Monday evening, April 19, in the Edison Auditorium.

Mr. James T. Carriel, Southwest Exploration Company, opened the program with an account of "Activities at R. M. Pyles Boys Camp", profusely illustrated by colored slides. These slides showed the activities enjoyed by underprivileged boys at the mountain camp on the lower Kern River in the Sierras. The camp, a very worthwhile endeavor, was established in 1948 and is supported by contributions from members of the oil industry.

The second paper of the evening by Mr. John V. Byrne, graduate geology student at U.S.C., was entitled "South Pacific Reefs." Mr. Byrne described a three month expedition to the Southern Pacific, under the auspices of the Pacific Science Board, a part of the National Research Council. In company with experts in other sciences, Mr. Byrne visited Hawaii, Fiji, Tahiti and set up a base camp on the atoll of Raroia in the Tuamotus Islands, the island upon which the "Kontiki" was wrecked. There the group studied the fauna, flora and geologic structure of this typical atoll; one of a type which is thought to have started as a fringing reef on a sinking island which finally evolved to a more or less circular reef enclosing a relatively shallow lagoon. Mr. Byrne's excellent Kodachrome slides clearly illustrated the form and structure of this and other reefs, as many of the slides were aerial views.

In winding up the evening, Pacific Section President Harold Rader gave a short report on the recent National Convention in St. Louis. Some 3000 A.A.P.G. members and 1300 wives were in attendance. Two symposiums were presented, one on "Occurrence of Oil and Gas in Continental Beds", with a panel discussion in the evening; and the other "Inclined Water Tables" with its evening panel discussion. Several papers also were given on the Great Plains area, particularly the Williston Basin.

Mr. Rader commented on the small number of papers from the Pacific Section. The Editor of the Bulletin has registered a similar complaint in regard to papers from the Pacific Section in that publication. Attendance at the Business meeting was so small as to be farcical; some 42 members, including 8 past officers of the Association, being present.

NORTHWEST GEOLOGICAL SOCIETY MEETING

The Northwest Geological Society met at the New Yorker Cafe in Tacoma, Washington on April 5. Speaker for the evening was Dee Molenaar, geologist for Phillips Petroleum Co. in Chehalis, Washington.

Dee was a member of the expedition that made the assault last summer on K-2, a peak in the Karakoram Range in Kashmir, India. K-2 is the highest peak in the Karakoram and second highest in the world. The trip required a 150 mile hike to get to the base of the mountain, much of which was over such things as swinging bridges made of vines, with some of the vines missing, icy rivers and rivers of ice. Eight camps were set up on the mountain, and it was in camp 8 that it was determined that Art Gilkey had developed a blood clot. After being pinned down by storms for nine days, they started the descent with Gilkey bundled in sleeping bags. While crossing an ice slope with Pete Schoenig anchoring Gilkey, one of the party slipped and fell dragging the others in a tangle of ropes to be caught in the line holding Gilkey, and stopped by Schoenig. They managed to help each other back up and into camp where they spent the night resting, with the idea of returning the next morning to retrieve Gilkey. When morning arrived, they were shocked to discover that Gilkey was gone. There being nothing possible they could do regarding the missing man, the rest of the party started their return to the base of the mountain.

Dee's talk was most interesting, and his slides were not only "good pictures", but also well coordinated.

S.E.P.M.-A.A.P.G. SPRING FIELD TRIP

Dr. Ben Page, Associate Professor at Stanford, will be the chief speaker at the dinner meeting at the Montecito Country Club at 7:00 P.M., Friday, May 14, preceding the annual S.E.P.M.-A.A.P.G. Spring Field Trip on Saturday, May 15, to the San Marcos Pass - Jaloma Creek area of the Santa Ynez Mountains. Dr. Page is an authority on this area and recently published an article on the area in the A.A.P.G. Bulletin.

The field trip will leave at 8:00 A.M. on Saturday from Tucker's Grove, located on Cathedral Oaks Drive, 1.2 miles west of the intersection of Highway 150 and San Marcos Pass Road.

A syllabus of the trip will be available. It is suggested that a copy of the map from Tom Dibblee's paper on S.W.Santa Barbara County, as well as a copy of the A.A.P.G. correlation section of the coastal area will be of use to those taking the trip.

SAN JOAQUIN GEOLOGICAL SOCIETY MEETING

The regular monthly meeting of the San Joaquin Geological Society was held at the El Tejon Hotel in Bakersfield April 6, 1954. A large group of geologists and their wives heard Addison Cate, Hancock Oil Co., give a travelog on his recent eight-month tour of Europe, illustrated by a grand group of Kodachrome slides.

Although the talk was entitled "A Geologist's View of Europe," Addison's interest was also on the important historical and cultural areas. His Kodachromes depicted much of the local color of the byways not seen on a scheduled tour, since most of his travel was by bicycle in company with his sister.

S.E.G. SPRING MEETING PROGRAM

El Tejon Hotel, Bakersfield, Calif., Wednesday, May 12, 1954, 1:30 P.M.

1. "Isostatic Problems Associated with Gravity Interpretations in California."
   Lytton F. Ivanhoe, Standard Oil Company of California, Bakersfield, California.

2. "Correlation Analysis of Seismic Data."
   Hal J. Jones, G.S.I. and Texas Instruments Incorporated, Dallas, Texas.

3. "Multiple Reflections in Off-Shore Seismic Operations."
   Carl Savit and Joseph Sider, Western Geophysical Company of America, Los Angeles, California.

4. "Field Experience with Magnetic Recording of Seismic Data."
   R. A. Peterson and F. B. Coker, United Geophysical Company, Inc., Pasadena, California.

5. "Radar as Used in Exact Position Locating."
   J. Leonard Lovett, Raytheon Corporation, Wilmington, California.

Dinner Meeting (Held jointly with the San Joaquin Geological Society.) Spanish Ballroom (6:00 P.M.)

Dr. Fred Bullard, University of Texas, on a joint A.A.P.G.-S.E.G. distinguished lecture tour, will speak on "A Volcanic Cycle as Exhibited by Italian Volcanoes."

Spring Barbecue

The A.A.P.G. Annual Spring Barbecue, commonly referred to as the "Pico Canyon Picnic", will be held on Friday, June 4 this year. Due to the fire hazard, the Pico Canyon grounds are no longer available and at press time a new location had not been acquired. Every effort is being made to find a satisfactory location in the Castaic area and several are currently being sought. In the event a location cannot be found in the Castaic vicinity it may be necessary to hold the barbecue in the L.A. Basin. As soon as a location is established, reservation cards will be mailed.

N.C.G.S. FIELD TRIP

The Northern California Geological Society will conduct a field trip through the Eocene and Cretaceous section of the west side of the Sacramento Valley on May 8, 1954. A dinner meeting will be held at the Woodland Hotel at 7:15 P.M. on May 7, followed by a geological discussion of the trip area by Dr. N. L. Taliaferro and others. A syllabus of the trip will be distributed.

The field trip will start from the old railroad station in Capay at 9:30 A.M. Box lunches and beverages will be available.

Those attending should make their own housing arrangements in Woodland.

NEW G.S.A. OFFICERS

At the Annual Meeting of the Cordilleran Section, G.S.A., held this year in Seattle on March 26 and 27, the following officers were nominated and elected for the year just commencing:

Chairman	Mason Hill Richfield Oil Company
Vice-Chairman	Thomas Clements University of Southern California
Secretary	V. L. Vanderhoof Intex Oil Company

This is the first time since the late Ralph Reed was chairman in 1939 that a petroleum geologist has occupied the post.

DISTRICT REPRESENTATIVES

Pacific Section President, Harold Rader, has been notified that the following candidates were elected to the office of District Representative in the recent election by mail.

Los Angeles Area:

Phil Cook	-	one year
Joe Hudson	-	two years
Loyde Metzner	-	two years
Harold Sullwold	-	two years

Northern California Area:

Willard Classen - two years

Coastal Area:

Otto Hackel - two years

PERSONAL ITEMS

Dick Vaughn, geologist with Standard in Sacramento, has recently been transferred to Salt Lake City, Utah.

Jay de l'Eau, landman for Signal Oil and Gas in Sacramento, is being transferred to Ventura. Signal will no longer maintain an office in Sacramento.

John Reynolds, district landman for the Texas Co. in Sacramento, is being transferred to Los Angeles as district landman for Texas in the L. A. Basin. You should have known better than to buy that house, John. Bill McEachin will be in charge of the Sacramento land department for Texas, with J. S. Merriam being transferred from L. A. to serve as scout-leaseman.

The Fishing Club chain letter took Sacramento by storm recently. Rumor has it that Bill Cunningham, Brazos Oil and Gas, sent a very novel "lure" which cannot even be mentioned here.

Joe Floyd and Carl Helms, Standard geologists in Sacramento, recently tried unsuccessfully to outsmart the General Petroleum bunch in Sacramento. It seems that Joe and Carl suddenly turned very civic-minded and volunteered to conduct 50 Cub Scouts around G.P's. deep Sacramento Valley test. At any rate, thanks to the alert G.P. boys on hand at the well, Joe and Carl looked rather foolish in their Cub Scout shorts as they were caught trying to enter the core house.

Bill King, Don Gillespie, Joe Johnson, and Frank Kilmer, Shell geologists in Sacramento, are attending Shell's indoctrination school which takes them to Los Angeles then to Salt Lake City and Houston. They should know all about the oil business when they return to Sacramento in about three months.

Bill Bishop has returned to Nevada to supervise Richfield Oil Corporation's exploration in that state. His headquarters will be in Ely.

Richard Bowen, Standard geologist in Sacramento, has received a Fullbright Scholarship for twelve months at the University of Melbourne, Australia. His field project will entail a study of Permo-Carboniferous glacial deposits. Richard will depart in October for a possible two-year stay.

Vic Smith, General Petroleum at Los Angeles, has been transferred to Big Piney, Wyoming, one of the coldest places in the nation. This might not suit most people but sounds ideal for a newly married couple.

Dan Flynn, General Petroleum, formerly at San Fernando has opened an office at Elko, Nevada. Glendale was never like this.

Reported along the Convention gossip line is the fact that Bill Kennett kept very good tab on the airline travelers with a little black book. This should prove better reading than the recent investigations in Washington, D.C.

The Great Basin is the next stop for Neal Smith and Dick Darrow, geologists for Standard Oil in Bakersfield. The going-away party was tops, since some of those states are reported to be almost dry.

Irv Schwade, Richfield Oil Corporation, has returned to his home base, Bakersfield. Guess it was a choice between summer or winter, but Peru at its best is not like home.

Rick Shoemaker has returned from a vacation in Oregon. It was a busman's holiday, since an extensive hunt was made for "Thunder eggs". The Easter Bunny must be different up there.

George La Perle, Richfield Oil Corp. geologist, married Wilma Marie Cripe on April 24, 1954 in Marysville. (George must have forgotten that Daylight Savings time came into effect the next day.)

Jack Denn, The Texas Co. scout, recently transferred from Bakersfield to Los Angeles, has left the company and is taking an extended trip to Mexico. He will be replaced by Henry Charles, an engineering graduate from Ohio State.

Shell Oil Company has opened a District Office at Ely, Nevada with Walt Smith from Ventura in charge. Elmer (Hutch) Hutchins will be the scout in the area having recently transferred from Northern California. The area will include all of Nevada and the westerly half of Utah.

Russell G. Gastil has joined the staff of the Shell Oil Company at Seattle and will be working in the Seattle and Elma area.

Bob Galeski, Honolulu Oil Co. at Bakersfield, will be spending most of the month of May in Montana. Good country to have business to take care of, since fishing season opens about that time.

Quentin Moore, General Petroleum geologist at Bakersfield, has recently been returned to duty from his bout with San Joaquin fever. Welcome home, Quentin.

Mr. and Mrs. Robert Herron recently returned from a ten-day vacation in the Hawaiian Islands. It is rumored that Bob is considering changing his profession from a searcher for lost oil fields to an importer of baby sitters.

E. C. (Mickey) McKnight, Standard Oil Company geologist at Los Angeles, is reported to be recuperating from the King City core party. It seems that the core party just happened to be held on Wednesday between the King City scout party and the Santa Maria barbecue. It's a rough life these scouts lead, isn't it Mickey?

The passenger list on American Airlines Flight 140, non-stop to St. Louis, on April 11th included the following 24 oil people headed for the convention: L. A. Morrison and Jim McDonald of Humble; Ed Dobrick, Pete MacMurrough and J. N. Stoddard of Standard; Rex Grivetti, C. E. Van Gundy and Hans Ashauer of Texas; Frank Morgan of Richfield; Mary and Joe Hudson of Monterey; Mike de Laveaga, John Hazzard and Stan Wissler of Union; Dave Sears and Bill Hobro of Shell; Bill Kennett of Superior; L. A. Martin, C. C. Lister, R. G. Sohlberg, F. B. Coker and M. Slavin of United; A. E. Tilley of Cal. Research and F. A. Hale of Cal. Standard in Calgary.

John Hazzard guided the geological flight over Nevada and Utah. All arrived in St. Louis completely sober and well rested. It is assumed that the extra time gained was put to good use.

Roy A. Miley, The Texas Co. geologist, has been transferred from Bakersfield to their Santa Paula office, effective April 15. This is a change we think that Roy will like.

Oscar Weser, Standard Oil Co. geologist, has just returned to duty after a nose operation at St. Vincent's Hospital in Los Angeles. Oscar spent four very uncomfortable days around the middle of the month and is still carrying a couple of beautiful shiners. (Could this have any connection with his recent divorce from Joe Long?)

Tom Baldwin, Monterey Oil at Los Angeles, was recently diving in shallow water between Seal Beach and Newport, working in conjunction with Geologic Diving Consultants of San Diego, when he discovered a new type locality for the L. A. Basin. While trying to take a dip and strike on a ledge in murky water, he noticed the rough and uneven surface. A little later, on again visiting the outcrop, he found that the water had cleared and that the outcrop was a nearly complete jawbone of a Mastodon. Unfortunately, the specimen was broken into two pieces in getting it into the boat, but all of it was retrieved. The jawbone, and a tusk found later, are on display at Scripps Institute in La Jolla.

Harry R. Feder, Bakersfield and Los Angeles consultant, has broken ground in virgin territory (again). According to the local news at Ely, Nevada, Harry was the first to open a consulting geologist office there. Mrs. Feder originally hailed from that section of the country. I wonder if that could have had any bearing on Harry's decision to make a change. Good luck, Harry, in your new venture.

NURSERY NEWS

Mr. and Mrs. Dick Hovey, Standard Oil Co. at Bakersfield, announced the arrival of Dean Allan, on April 21, 1954. He weighed in at 7 lbs., 1 oz., and is the first boy and second child for the Hoveys.

Jack and Lura Clare, Superior Oil at Bakersfield announced the arrival of their first daughter, Nancy Katherine, 7 lbs., 8 oz., born April 12, 1954. The Clares have two boys.

To Ned and Eleanor Allison, Standard Oil Co. at Los Angeles, a girl, Anna Beth, born April 8, 1954.

Mr. and Mrs. Bob Scott, the Texas Co. at Bakersfield, are the proud parents of their first daughter and second child, Jennifer Lynn, born April 19, 1954, weighing 7 lbs., 3 oz.

To Bill and Lynn Yost, Shell Oil at Ventura, a girl, Nancy Lynn, born March 25, weighing 5 lbs., 10 oz. This is the second daughter for the Yosts.

Bill and Mabel Huckaba, General Petroleum at Bakersfield, announced the arrival of their first child, Bruce Steven, on April 11, 1954, weighing 5 lbs., 14 oz.

Ralph and Patricia Newton, Standard Oil Co. at Ojai, announced the arrival of a new son, Mark Whittlesey, born March 3, 1954. They also have two other children.
P.S. This one was easy on the father. Mark arrived a month early while Ralph was out in the hills.

Mr. and Mrs. Jim Slosson, Western Gulf Oil Co. at Los Angeles, announced the arrival of their first boy and second child, Thomas, born April 3, 1954, weighing 8 lbs., 2 oz. Jim hasn't decided whether Tom is to become a track star or to display his talents on the football field.

CALENDAR

May 6, 1954: Thurs., 12 noon sharp. A.A.P.G. Luncheon, Rodger Young Auditorium, 936 W. Washington Blvd., L.A. Mr. J.M. Jessen, attorney, will speak on the subject "Proposed Legislation to Eliminate Conflicts in the Multiple Use of Public Lands". As a representative of the Western Oil & Gas Association, Mr. Jessen is well qualified to discuss the subject.

May 6, 1954: Thurs., 9:15 A.M. A.P.I. Annual Spring Meeting, Pacific Coast District, Pacific Ballroom, Statler Hotel, Los Angeles.
Evening: Banquet 6:30 P.M. Raymond Morley, Ph.D., LL.D., Columbia University, will talk on "Government of the People, For the People and By the Bureaucracy."

May 7, 1954: Fri., 9:15 A.M. Second day A.P.I. Spring Meeting, Pacific Coast District, Pacific Ballroom, Statler Hotel, Los Angeles.

May 7 & 8, 1954: Fri. & Sat., Northern California Geological Society Field Trip.
Friday Evening Dinner Meeting, Woodland Hotel, Woodland. Route discussion and syllabus distribution.
Saturday 10:00 A.M. Assemble at town of Madison. Complete plans discussed elsewhere in paper.

May 11, 1954: Tues., 7:30 P.M. Sacramento Geological Society Meeting, State Public Works Bldg., 1120 "N" Street, Sacramento. John G. Ferris, Staff Engineer, Ground Water Branch, United States Geological Survey will present, "Ground Water Hydraulics with Emphasis on Problems Related to Alluvial Fill Deposits and with Comments on King Hubbert's Theory of 'Entrapment of Petroleum Under Hydrodynamic Conditions'."

May 11, 1954: Tues., 7:00 P.M. Coast Geological Society dinner meeting, Miramar Hotel, Montecito. Mr. Dick Berryman, Micro Hole Drilling Company, and Mr. Sam Madley, Santa Fe Drilling Company, will discuss "Slim Hole and Micro Hole Drilling for Oil Exploration." Those who have not previously attended a Coastal Society meeting should request reservations from Mr. Spence Fine, Box 150-R, Ojai, California, or telephone Santa Paula 1500.

May 12, 1954: Wed. S.E.G. Spring Meeting, El Tejon Spanish Ballroom, Bakersfield. Afternoon session at 1:30 P.M. See elsewhere in paper for details.

May 12 & 13, 1954: Distinguished Lecture Series. Dr. Fred Bullard of the University of Texas will present two lectures in California on

"A Volcanic Cycle as Exhibited by Italian Volcanoes." On May 12, 1954, 6:00 P.M. he will appear before a joint meeting of the A.A.P.G. and S.E.G. at the Spanish Ballroom, El Tejon Hotel, Bakersfield. On May 13, 1954, 7:30 P.M., he will speak in the General Petroleum Auditorium, 612 So. Flower, Los Angeles, before a joint meeting of the A.A.P.G. and S.E.G.

May 14 & 15, 1954: Fri. & Sat. A.A.P.G. - S.E.P.M. Field Trip. Fri. evening dinner meeting, Montecito Country Club, Santa Barbara. Dr. Ben Page of Stanford University will be the principal speaker.
Sat., 8:00 A.M. Tuckers Grove, commence Field Trip. See elsewhere in paper for details.

May 15, 1954: Sat., 5th Annual Barbecue and Golf Tournament, A.P.I., San Joaquin Section, Bakersfield Country Club, Bakersfield. Barbecue at 6:00 P.M. $3.00. Golf reservations obtained through Lloyd Allison, National Supply, Bakersfield. Green Fee $4.00. Reservations are limited to members of the A.P.I.

May 17, 1954: Mon., A.A.P.G. MOnthly Forum Meeting. Time, place and subject to be announced.

May 18, 1954: Tues., 6:30 P.M. A.P.I. San Joaquin Section, Dinner Meeting, Stockdale Country Club Bakersfield. "Waste Water Disposal" will be discussed. Speaker for the evening is to be announced.

June 4, 1954: Friday, A.A.P.G. Annual Spring Barb--ecue. Details to be forthcoming. See elsewhere in paper for current status.

June 4, 1954: Fri. Northern California Petroleum Round Table outing, Greenvalley Country Club, 3 miles north of U.S. Highway 40 - Benicia intersection near Fairfield, California. Events include a gold tournament, swimming, free beer, and a general social get--together. The golf tournament starts at 12 noon. A steak dinner will be provided. Anyone connected with the Petroleum Industry is cordially invited. Tickets cost $3.50. Those interested in attending, please contact Tom Wilson, 622-1/2 "I" St., Brazos Oil and Gas, Sacramento, California.

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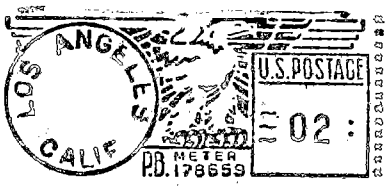

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Form 3457 requested.

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 June 1954 No. 6

ASSOCIATION ACTIVITIES

DISTINGUISHED LECTURER

On Thursday evening, May 13, Dr. Fred M. Bullard, Professor of Geology at the University of Texas was guest speaker at a meeting in the General Petroleum Auditorium. Dr. Bullard, on tour for the A.A.P.G. under the Distinguished Lecturer program, presented an interesting and entertaining talk on "A Volcanic Cycle, as Exhibited by Italian Volcanoes," to a large audience which included many ladies. Dr. Bullard also spoke on the same subject the evening of May 12 in Bakersfield before a joint meeting of the S.E.G. and S.J.G.S.

Dr. Bullard has been interested in volcanoes since 1929 when he was a member of a U.S.G.S. expedition to Alaska. He has studied them in Hawaii, Mexico and Central America and in 1952 spent a year as a Research Scholar under the Fulbright program studying volcanoes in Italy.

Volcanoes are classified into many types according to their eruptive habit. The two extremes of behavior are the Peléan, which is violently explosive and emits only incandescent fragmental material; and the Hawaiian, which quietly pours out large volumes of very liquid lava.

In general, acid magmas form the explosive type and basic magmas the quiet type. Intermediate types, of which Vulcano, Stromboli and Vesuvius are examples, have magmas whose composition lies between the two extremes.

The backbone of Italy is the Appenine Mts., part of the line of folding which starts in the Alps and continues south through Italy and west through Sicily and probably includes the Atlas Mts. of North Africa. The stratigraphic column in Italy consists of Jurassic and Cretaceous limestones overlain by Eocene and Miocene sediments. These beds were folded at the same time as the Alps and were worn down in the Pliocene. In the late Pliocene, a rift formed on the west side of the Appenines, with the west side dropping down and forming the Tyrrhenian Sea. Volcanic activity started at the north end of this fracture and moved southward. Activity today is continuing only in Vesuvius, Stromboli, Vulcano and Etna. Old craters, some occupied by lakes, can be seen from north of Rome to the vicinity of Naples at Lake Bolsena, Lake Vico, Lake Bracciano and the Alban Hills. Nineteen craters are present around Naples alone.

It has long been believed that volcanic eruptions, like the weather, exhibit a cyclic pattern, and that if this pattern is known, the prediction of the course of a volcanic eruption is possible. Such a variety of factors combine to determine the eruptive character of a volcano that no two volcanoes follow the same plan. Continuous observations over long periods of time are necessary for studies of this nature, and are generally lacking. The eruptive pattern of Vesuvius is better known than that of any other volcano because since earliest times thousands of people have lived on and around it.

Vesuvius first became active in the Pleistocene as a submarine volcano. It was a simple crater until 79 A.D., when the cone was partially destroyed in the violent eruption that destroyed Pompeii and Herculaneum. The rim of the early crater is called Monte Somma. The term "somma" is commonly applied to such old rims throughout the world. A new cone, the present Vesuvius, was built within the old crater. In that year, the volcano entered a new cyclic period and its behavior became intermediate in type, with both quiet and explosive activity occurring during a cycle.

The eruptive cycle of Vesuvius is, in general, about forty years. The last two cycles covered the periods 1872-1906 and 1906-1944. A new cycle is initiated by a repose period averaging three and a half years, but may be as long as seven years. This is followed by mild explosive activity in which the lava flows appear in the crater or emerge on the sides of the cone from small cracks. Finally, the lava column has risen almost to the top of the cone and, under its pressure, a major crack develops near the base of the cone and rapid and large lava flows emerge. The level of the lava column is lowered in this process to a point where the gas in the throat suddenly escapes in tremendous explosions which usually destroy the upper part of the cone and broadcast tremendous quantities of fragmental material. The period of large lava flows is measured in days and the final explosive eruption may last only a few hours. Vesuvius then lapses into quiescence which marks the beginning of a new cycle.

Mt. Etna, on Sicily, has a period of about three and a half years between eruptions, which are of the quiet type. Stromboli, in the Eolian Islands, is in a continuous state of mild explosive activity. It is believed that the violent eruptions superimposed on its normal activity follow a definite rythm. Vulcano, also in the Eolian Islands, last erupted in 1890 and now only has a few steam and sulfur vents.

The paper was excellently illustrated by Kodachrome slides and color movies taken by the author during his studies in Italy.

COAST GEOLOGICAL SOCIETY DINNER MEETING

Mr. Dick Berryman, Micro Hole Drilling Company, and Mr. Sam Madley, Santa Fe Drilling Company were guest speakers at the Coast Geological Society Dinner meeting at the Miramar Hotel in Montecito on May 11, 1954. Mr. Berryman discussed techniques and status of "Micro Hole" drilling in which a 2-3/4 inch hole is drilled using truck-mounted equipment which requires a 28 x 60 foot drill site. The miniature rig uses 1-1/4 inch upset tubing for drill pipe 2-1/4" drill collars and 2-3/4 inch drag head drilling bits. Service companies have constructed special equipment for use in the "Micro Hole" so that conventional electric logs, formation tests, oriented punch cores, conventional cores, whipstocks and directional surveys are available for use. 2230 feet is the deepest hole drilled to date by the Micro Hole Drilling Company, although another operator in California using similar equipment has drilled to 4500 feet.

Mr. Madley discussed slim hole drilling in which standard drilling rigs, equipped with 3-1/2 inch and 4-1/2 inch tubing, drill a 6 inch hole to depths up to 8000 feet.

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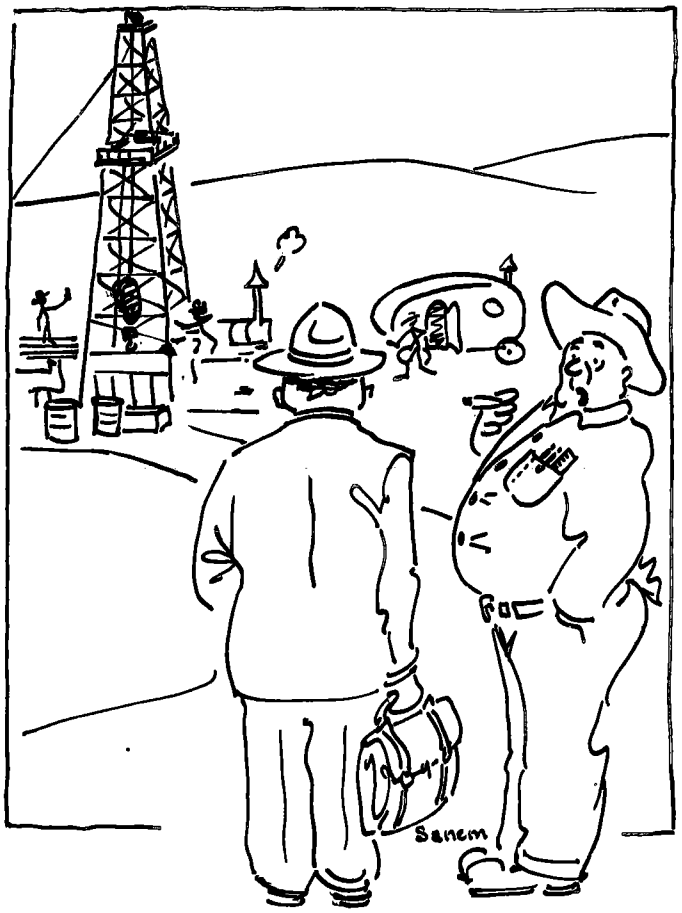

I know this is going to make a well, my corns hurt, my cousin's here from Texas and there's a full moon. Why, even the geology is good on this play!

A.A.P.G. LUNCHEON

Members of the Association accompanied by many of their companys' attorneys heard Mr. J. M. Jessen, Attorney, talk on "Proposed Legislation to Eliminate Conflicts in the Multiple Use of Public Lands" at Rodger Young Auditorium on May 6, 1954. Mr. Jessen is associated with Dolley, Knight, and Jessen of Los Angeles and is a representative of the Western Oil and Gas Association subcommittee which initiated the proposed legislation before Congress.

The problem of mining locations in areas under Federal oil and gas lease and oil and gas leases on areas under mining locations has been recognized for some time. There exists two systems for acquiring rights to prospect for and remove the mineral resources of the public domain - one under the general mining laws and the other under the Mineral Leasing Act of 1920. Many conflicts have resulted.

For some months, representatives of the oil and gas industry and the mining industry have been working with the assistance of Mr. Clair M. Senior, Salt Lake City attorney, in drafting a bill to resolve this conflict, so as to afford full opportunity for development of the mineral resources in the public domain. The original bill, known as HR 8820, was introduced by Congressman Aspinall of Colorado. A companion bill which is nearly identical to HR 8820 was introduced into Senate by Senator Milickan of Colorado as bill S 3344. Space does not permit discussion of all eleven sections of pending bill, merely a few of the highlights.

SECTION 5 permits the location of mining claims on lands which are valuable for minerals subject to the mineral leasing laws. SECTION 6 prescribes obligations of the parties where the same lands are being utilized for both mining operations and Leasing Act operations.

SECTION 7 would establish a procedure under which a person having an interest under the mineral leasing laws may obtain a determination as to the existence of conflicting mining claims and of the validity of any assertions thereunder of title to Leasing Act minerals. There is a real need for such a procedure. The manner of publishing notice is similar to that followed as to mineral patent applications and the hearings and appeal procedures would follow those applicable to contests or protests in other public land matters.

SECTION 8 would permit the owner of a heretofore located mining claim, at any time prior to issuance of patent, to relinquish all rights under the claim as to Leasing Act minerals.

The Department of the Interior seems to have interpreted the Atomic Energy Act as precluding any mining locations for fissionable source material, while on the other hand, the Atomic Energy Commission does not seem to have given the Act that interpretation and has encouraged mining locations. The purpose of SECTION 9 is to make it clear that the Atomic Energy Act, and particularly SECTION 5 (b) (7) thereof, does not preclude location and patenting of mining claims for fissionable source material subject to those limitations in the Act as to the disposal and use of the material.

The enactment of a bill such as the one under discussion would open to mining location vast areas affected by the mineral leasing laws. The bill would establish preference positions in order to protect mining claimants who have heretofore proceeded in good faith. Unless this were done, there would be a mad scramble to relocate such areas in an effort to capitalize on the title uncertainties inherent in the present situation. Serious conflicts, controversies and possible injustices would result.

REMEMBER JUNE 4th!

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A.A.P.G.-S.E.P.M. FIELD TRIP

The A.A.P.G.-S.E.P.M. dinner meeting and field trip in the Santa Ynez area were held May 14 and 15. Approximately 175 attended the dinner meeting at the Montecito Country Club in Santa Barbara to hear Professor Ben Page of Stanford University discuss the "Geology of the Upper Santa Ynez River." (Refer to "Stratigraphy and Structure of Mountains Northeast of Santa Barbara, California" by Page, Marks and Walker, A.A.P.G. Bulletin Volume 35, No. 8, Pages 1727-1780.)

Hank Neel's plea for clear weather apparently went unheeded as visibility during the first part of the field trip was limited by dense fog to the extent that more attention was placed on locating the tail lights of the car ahead than on the outcrops listed in the road log. The atmosphere cleared sufficiently upon descending into the Santa Ynez Valley to make the trip a success.

SACRAMENTO GEOLOGICAL SOCIETY MEETING

Mr. John G. Ferris, Staff Engineer, Ground Water Branch, U. S. Geological Survey, Lansing, Michigan, spoke to the Sacramento Geological Society at their monthly meeting in the Public Works Building on May 11th.

Mr. Ferris' talk was in two parts. The first concerned the use of aquifer-performance tests to obtain transmissibility and storage coefficients of aquifers. He emphasized particularly the limitations of the tests and the way they might be influenced by ground-water barriers, other pumping wells, nearby streams, and facies changes in the aquifer. The second part of Mr. Ferris' discussion was concerned with King Hubbert's theory of petroleum accumulation under hydrodynamic conditions. He described the theory briefly with comments on the hydrologic features that are controlled by ground-water movement.

NORTHERN CALIFORNIA GEOLOGICAL SOCIETY
FIELD TRIP MAY 7-8, 1954

The Northern California Geological Society held a most successful field trip to study the west side of the Sacramento Valley, California, May 7th and 8th. The Eocene and Cretaceous section was studied in the Capay Valley - Wilbur Springs area.

Friday evening, May 7th, a dinner was held at the Woodland Hotel at which time Dr. N. L. Taliaferro gave an interesting review of the area to be studied and the geology of the same. He was followed by C. C. Church who discussed the foraminifera of the area and told of the best collecting localities to be seen the next day. Syllabus for the trip was distributed. Some 149 were present for the dinner.

On Saturday morning, May 8th, the group assembled at the old Capay railroad station at 9:30 A.M. After a short talk by the leader of the field trip, Gordon Oakeshott, the caravan of 54 cars got under way, stopping at the various points indicated in the syllabus. A stop for lunch was made at the Boy Scout Campgrounds on Capay Creek followed by the second half of the trip ending in Williams around four in the afternoon.

A large group was on hand Saturday for the field trip, over 200 being counted. It was very gratifying to see the large turnout and to note the number present from the United States Geological Survey, the State Division of Mines, Bureau of Reclamation, and colleges. Company geologists from Los Angeles, Bakersfield and way points were in evidence. The Southern California group included Harvey Lee and Stan Wissler, Frank Parker and Ike Holston.

The officers and members of the committee did an excellent job and the talks by Messrs. Taliaferro, Church, Solari, Alan Jackson and Chairman Gordon Oakeshott were well received. The addition of a public address system added materially to the enjoyment of the trip as everyone was able to hear all that was said.

President of the Society D. J. Pickrell, and his officers wish to thank those who attended the trip and contributed so much to its success.

SEE YOU AT THE PICNIC!

A.A.P.G.-S.E.G.-S.E.P.M. DIRECTORIES

Ed Wellbaum, Kern Oil Co., 354 South Spring St., Los Angeles 13, Calif., Phone MU 4231, has been appointed by President Rader to handle the sale of Pacific Section Directories. One dollar ($1.00) to Ed will secure you a directory post-haste and postpaid.

HOMER WILL BE THERE! WILL YOU?

NEW A.A.P.G. CROSS-SECTIONS

A new north-south cross-section in the northern Sacramento Valley has been issued by the Pacific Section, A.A.P.G. This new section extends from Section 11, T23N, R1W, south through the Chico, Afton and Wild Goose gas fields to Section 12, T16N, R1E at Marysville Buttes. The new section, and the five sections previously issued, can be obtained from Dorothy Harkness, Union Oil Co., 617 West 7th St., Los Angeles 17, Calif., for $1.10 each, or $6.60 for the set.

DON'T FORGET--IT'S AT BRITT PARK, PIRU!

HAVE A NICE COOL BEER!

1955 NATIONAL CONVENTION

Robert H. Dott, Executive Director of the A.A.P.G., advises that next year's National Convention will be held in New York on March 29-31, 1955, inclusive. The Business Committee will meet Monday, March 28 and the standing and special committees will probably meet on Sunday, March 27.

N. C. G. S.

The syllabus of the recent Northern California Geological Society field trip through the Eocene and Cretaceous section on the west side of the Sacramento Valley can be obtained from Dan Pickrell, Golden Gate Petroleum Co., 465 California St., San Francisco 4, Calif. for the sum of $2.50. The publication is well worth having and is very legibly printed on heavy white paper and includes an index map, geologic map, correlation chart, five cross-sections, an aerial photo, historical data, road log and references to pertinent literature.

A few copies of the syllabus of the 1950 field trip through the North Mt. Diablo Monocline are also still available and may be obtained for $1.50 from Mr. Pickrell.

PERSONAL ITEMS

Best wishes are extended for a speedy convalescence from minor surgery for Horace Harrington, District Geologist, Superior Oil Company, Bakersfield.

Paul Harris, geologist in charge of the Texas Company's Sacramento office, is presently putting in a two weeks training course in the field with a seismic crew near Tracy, California. It seems that Paul is digressing in his training since he learned to pick records first and is now hustling jugs.

Jack Merriam, scout for the Texas Company in the Sacramento Valley, was married to Margie Long on May 8th in Reno. Jack bought the license three minutes before closing time and two hours later was happily married.

Standard Oil Company is looking for something to do -- they have entered into a 'bass derby' May 22nd. Seems to be a race between Carl Helms, Jack Cunningham and Bob Brace for top honors.

Dave Day, Geologist, Bakersfield, transferred affiliations from Tidewater Associated to Superior Oil Company on May 3, 1954.

Dave Costello, Geologist with Tidewater Assoc., Bakersfield, spent the first two weeks of May on Military Leave with the Air Force in Denver, Colo., where he attended a Photo-Radar Interpretation Course.

Miss Emelia Grace, the better half of Union Oil Company's scouting department at Los Angeles, underwent a gall stone operation Monday, May 24 and is reported to be doing as well as could be expected. She will be resting her bones at the Centinella Valley Community Hospital at Inglewood for the next ten days or so. We wish her a speedy recovery.

Mr. Frank A. Morgan, Vice President in charge of Exploration for Richfield Oil Corporation has announced that he is taking an early retirement and will leave the company some time in June or July. His future plans, beyond an extended vacation, are his own secret and judging from the number of fellows giving him the third degree at the various meetings, he is paying a dear price for the privilege of keeping it so.

Richfield Oil Corporation, Bakersfield, took to the wing the last week in May when the Exploration Department moved into new quarters, reportedly leaving the Engineers to their misery.

Bill Horsley recently with Seaboard Oil Corp., Bakersfield is now employed by Richfield Oil Corp. at Bakersfield. He will join forces with Barney Barnard, Incorporated.

Harold Lian, Union Oil Company geologist, has recently been transferred from Los Angeles to Santa Paula. His stay at Santa Paula, however, will be fairly brief. He was awarded a Fulbright scholarship and is leaving in September for a year's study in the Alps. Congratulations Mr. Lian.

W. A. (Bill) Mackersie, Seaboard Oil Company geologist at Los Angeles has received his moving orders and is to report to Seaboard's Denver office sometime in July. We think Bill will like this move after he becomes accustomed to breathing fresh air again.

Don Hartman recently joined the staff of the Texas Company and will be scout for the L. A. Basin and Coastal Area stationed at Los Angeles.

Mr. Oscar Wesser, Standard Oil Company geologist at Los Angeles and Elsa Bryden are planning to be married Saturday, May 29 at Santa Monica. Congratulations Oscar.

Mr. Richard (Dick) Holt, Humble Oil and Refining Company geologist has recently transferred from Phoenix, Arizona to the Los Angeles office and is to fill the position left open by Joe Hudson as California area geologist.

Mr. Robert H. (Bob) Dott, Humble Oil and Refining Company geologist has transferred from Phoenix, Ariz. to their new office in Eugene, Oregon. Bob Hess has been transferred from Los Angeles to Eugene as scout for the company making a total of two geologists and one scout.

Bob Hacker, Union Oil Company, is vacationing in Oklahoma.

Billy Osborn, Continental Oil Company, has been permanently assigned to the Ventura Division after recently completing a company training program in the Midcontinent and Rocky Mountains.

Charlie Sturz, T.W.A.O. Co., apparently forgot that he assisted in planning the A.A.P.G.-S.E.P.M. field trip route. Seems that Charlie made a wrong turn in Solvang and led a number of cars on a scenic tour before discovering his error.

Malik (Mal) Robinson has resigned from General Petroleum Corporation.

John Sprague, General Petroleum Corporation geologist in Sacramento, has departed for a summer field mapping stint. John's area will include everything from Sacramento north to Seattle. Have fun, John.

Of the 175 or more attending the A.A.P.G.-S.E.P.M. field trip, we think that honorable mention should be given to Otto Hackel, Roy Turner, John Forman, Howard Stark, Jim Vernon, Charlie Sturz, Doug Crawford, Orville Bandy, John Ruth and Bill Madill as they were the only ones to accompany Tom Dibblee on the walking portion of the trip. Seems that Jim Vernon had opportunity to exhibit his ability as a torero during this trek.

Bill Bishop, Richfield's traveling geologist has spent the last two weeks in Los Angeles area recuperating from an attack of Rocky Mountain fever. It seems that Bill was bitten by a tick while sitting on a log teaching his wife how to chop wood for their cook stove in their new home in Ely.

Mr. Robert Paschall, Hancock Oil Company, is proudly displaying a key chain token received from the Ventura Desk and Derrick Club after his capable presentation on "Subsurface Geology" at the club's recent meeting.

Bob Herron and Bob Nesbit, M.J.M.& M., recently entertained a group of Ventura area geologists with a color slide tour of Hawaii. Herron proved himself a chef and bartender when he prepared Teriyaki and "fruit?" punch.

NURSERY NEWS

Mr. and Mrs. Ray Tyson announced the arrival of their first child, Raymond David Tyson, Jr., (called Butch for short) born on May 11, weighing 7 lbs., 2 ozs. Mrs. Tyson is known throughout the exploration end of the oil business as Barbara Caldwell and according to the reports, her son Butch looks and acts just as you would expect a boy called Butch to look and act.

Dick Glenn, Standard Oil Company geologist at Los Angeles, and his wife Joan announce the arrival of their young daughter born May 24, weighing an even 7 lbs. As yet the Glenn's have not decided on a name.

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Bulletin 168, 1953

Geology of the Breckenridge Mountain Quadrangle, California. T. W. Dibblee and C. W. Chesterman.

Trade Journals and Miscellaneous Magazines.
Oil and Gas Journal - May 17, 1954, Vol. 53, No. 2., p. 169.

Another Look at Washington. John C. McCaslin.

World Oil - April, 1954. Vol. 138, No. 5.

What's New in Geophysics. Dr. William M. Rust, Jr. Pp. 80-88.

What About Reproducible Seismic Recording. Keith Beeman. Pp. 86-88

Low Porosity May Limit Oil in Deep Sands. (Part I). Dr. John C. Maxwell and Peter Verrall. Pp. 106-113.

It's Rough Going in the Uinta Basin. A. M. Current. Pp. 115-122.

How to Select the Correct Logging Method. C. K. Ruddick. Pp. 182-188.

World Oil - May, 1954. Vol. 138, No. 6.

New Oil Exploration Method Developed. Anthony Gibbon. Pp. 99-101.

Low Porosity May Limit Oil in Deep Sands (Part II). Dr. John L. Maxwell and Peter Verrall.

CALENDAR

June 3, 1954: Thurs., 6:30 P.M. A.I.M.E. Jr. Petroleum Group monthly dinner meeting at the Turf Club, Anaheim-Telegraph Rd. and Rosemead Blvd. Mr. Charles Wright, President of Oilwell Research Co. and Mr. Jan Law will speak about and give the "First Public Demonstration of In Situ, Combustion Drive." A working model will be used in this demonstration. For reservations contact T. A. Johnson, L.B.O.D., Long Beach 69918. Dinner $3.00 for members, $3.50 for non-members including tax and tip.

June 4, 1954: Fri., 2:00 P.M. Annual Pacific Section A.A.P.G. Spring Picnic at Britt Park (Piru). Fee $2.50. Breakfast at daybreak Sat. June 5, 1954. Golf tournament at Ojai Country Club, 8:30 A.M., June 4. Green Fee $4.00. For additional golf information contact Geo. Roth, Stanley 7-6294 or Jack Beach, Bakersfield 5--5026.

June 4, 1954: Fri. 12 Noon - Northern California Petroleum Round Table Annual Barbecue, Green Valley Country Club, 3 miles north of Highway 40 at Benicia turnoff (intersections of State Highways 21 and 12). There will be swimming, golf, good food and drinks. Many door prizes are to be given and prizes for a blind bogey golf tournament. Contact Tom Wilson, Brazos Oil and Gas Company, 622-1/2 "I" Street, Sacramento, California for tickets.

June 8, 1954: Tuesday, 8 P.M., Sacramento Geological Society Meeting, Clunie Clubhouse, Alhambra Blvd., and "F" St. Dr. William Gardner, Regional Geologist for project planning, Bureau of Reclamation, Sacramento, will present a Kodachrome illustrated talk on "Ground-Water Development in Iraq." Wives and other guests are invited.

June 8, 1954: Tues., 6:00 P.M., A.A.P.G. Dinner Meeting, Spanish Ballroom, Hotel El Tejon, Bakersfield. Mr. David Sears, Shell Oil Company, will give a talk and show slides under the title "Geology of the Central Panamint Range, Inyo County, Calif."

June 10, 1954: Thurs., Noon. S.E.G. luncheon, Biltmore Hotel, Los Angeles. Contact Forrest Lambrecht for reservations. Speaker and subject to be announced.

June 10, 1954: Thurs., 6:00 P.M. A.P.I. Basin Chapter annual Barbecue at Union Oil Company's Stearns Picnic Grounds east of Brea. Barbecue, featuring all the trimmings, and free beer will be served. Tickets available to 1954 members only, are $3.00 each, and may be obtained from Dean Hoffman, Box 547, Paramount, California. An extra $1.25 enclosed will cover your 1954 membership.

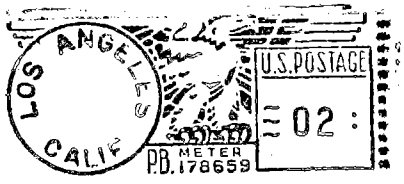
June 12, 1954: Sat., 7:00 P.M. Association of Petroleum Wives, Bakersfield, present "Vacation Cruise" an informal Dinner Dance at the Bakersfield Country Club. Knoel Cragen's orchestra. Tickets $6.00 per couple.

June 21, 1954: Mon., 7:00 P.M. A.A.P.G. Forum Meeting, General Petroleum Auditorium, Los Angeles. Dr. Robert C. Spivey, Senior Geologist, Shell Oil Co., will speak on "The Geology in the Vicinity of Railroad Valley, Nevada."

June 28, 1954: A.I.M.E. Forum, Engineers' Club, Biltmore Hotel. Dr. Norris Johnston will talk on "Prediction of Floodability of Oil Sands." Cocktails at 5:30 P.M., Dinner at 6:30 P.M., Talk at 7:30 P.M., $3.75 per person. Contact Charles Gallagher, MI 6507 for reservations.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

Vol. 8 No. 6



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PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

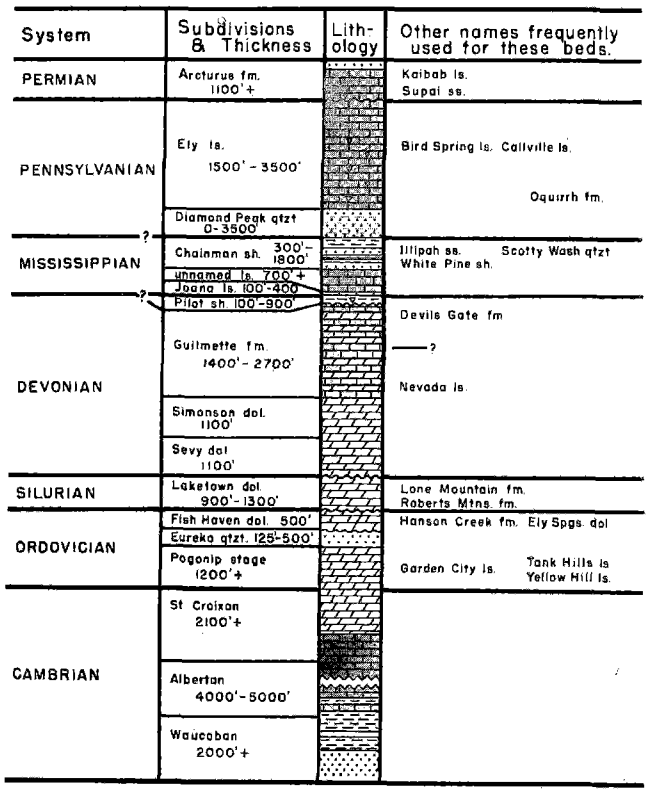
Vol. 8 July 1954 No. 7

ASSOCIATION ACTIVITIES

LOS ANGELES GEOLOGICAL FORUM

Mr. Robert C. Spivey, Senior Geologist, Shell Oil Company, spoke before a capacity crowd in the General Petroleum Auditorium June 21st on "The Geology in the Vicinity of Railroad Valley, Nevada". The speaker presented an excellent summary of Eastern Nevada stratigraphy and included colored slides depicting key geologic sections at Butte Valley, Grant Range, South Eagen Range, and Confusion Range. A generalized Paleozoic stratigraphic column of Eastern Nevada was kindly released by Shell Oil Co. and is shown in Figure 1.

PALEOZOIC STRATIGRAPHIC COLUMN-EASTERN NEVADA



Railroad Valley and vicinity, is located near the center of the eastern half of the Great Basin. This part of the Great Basin was, during Paleozoic times, a part of the Rocky Mountain Trough (miogeosyncline) located between the stable craton on the east and the Pacific Trough (eugeosyncline) on the west. The miogeosynclinal part of the Basin was separated from the eugeosynclinal part by a barrier which, at least during Mississippian and Pennsylvanian times, was a land barrier extending approximately north-south through Central Nevada. Sediments deposited in the Western geosyncline consisted of great thicknesses of volcanics, graywackes, dark shales, and siliceous limestones. Most of these have subsequently been metamorphosed. In contrast, Railroad Valley and vicinity was the site of deposition of more moderate volumes of sediments consisting of limestones, sand and shale. Fossils show that most of these were deposited in shallow water. The succession of Paleozoic beds exposed in and near Railroad Valley is as follows: Arcturus formation, mostly limestone, average thickness about 1100 feet, representing the lower part of the Permian; Ely limestone, average thickness about 2000 feet, lower and middle Pennsylvanian; Chainman shale, average thickness about 1500 feet, probably upper Mississippian; Unnamed limestone, about 600 feet thick, middle Mississippian; Joana limestone, about 200 feet thick, middle Mississippian; Pilot shale, about 500 feet thick, probably lower Mississippian; Guilmette formation, limestone and dolomite, average thickness about 2700 feet, middle and upper Devonian; Simonson dolomite, about 1100 feet thick, middle Devonian; Sevy dolomite, about 1100 feet thick, middle and possibly lower Devonian; Laketown dolomite, about 1100 feet thick, middle Silurian; Fish Haven dolomite, about 500 feet thick, upper Ordovician; Eureka quartzite, about 400 feet thick, middle Ordovician; "Pogonip" limestone, about 1200 feet thick, lower Ordovician; Cambrian limestone, dolomite, shale, and quartzite, estimated to be about 8000 feet thick.

After deposition of Permian sediments this area was uplifted and became a barrier between western and eastern basins. During the Mesozoic it may have been the site of deposition of fresh water sediments and volcanics, but these were probably local in extent and not very thick.

During Tertiary time the basin-and-range structure typical of the Great Basin began to form. Sediments were deposited in the valleys by lakes, streams, landslides, etc., but little information about their character, distribution, and thickness is available. Volcanic ash, tuff, and lava flows were widely distributed in the valleys and on the ranges.

On the east side of Railroad Valley near the village of Currant and some 7 or 8 miles northeast of Shell, Eagle Springs Unit 1, over 13,000 feet of presumed Tertiary beds are exposed. These sediments are composed of tuffs, tuffaceous sandstones and conglomerates, silty and sandy mudstones, and fresh water limestones. The sections penetrated by Shell Oil Company discovery well No. Eagle Springs Unit 1, Section 35, T. 9N., R. 57E., down to a depth of 7785 feet is similar in composition, but correlation of the two sections is not regarded as established at the present time. Within this section, Eagle Springs Unit 1 found oil saturation in a welded tuff at 6445 feet to 6880 feet. The well is producing from open hole between 6450 and 6730 feet. A generalized log of discovery well is as follows:

0 -	3,240'	Valley fill material.
3,240 -	3,450'	Carbonate section, Paleozoic? limestone.
	3,450'	Possible fault, slump or detrital contact.
3,450 -	6,445'	Valley fill material.
	6,445'	Top of pay zone or "Currant" volcanics.
6,445 -	6,730'	Pyroclastics with foreign material, termed welded tuff by some geologists.
6,730 -	7,300'	Softer volcanic ash and pyroclastics, fractured beds with some oil shows, altered to bentonite in lower interval.

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Next deadline July 19

7,300 - 7,400'	Fresh water limestone. Possible Tertiary age.
7,400 - 7,785'	Shale, hard black. Possible Tertiary age?
7,785 - 9,970'	Paleozoic limestone and shale, limestone contains Pennsylvanian fossils.
9,970 - 10,330'	Shale, sandstone and limestone. Chainman shale, upper Mississippian or lower Pennsylvanian.
10,330 - 10,358'	Igneous rock, coarse grained, gneissic.

The speaker concluded by stating that the area is complex and contains many problems. It will take the cooperation of all geologists concerned to solve these problems, as there remains much to be learned about the geology of eastern Nevada.

OIL SCOUTS CONVENTION

The annual convention of the National Oil Scouts and Landmen's Association was held in New Orleans, Louisiana on June 17, 18, and 19, 1954. The California delegation was well represented with the following in attendance:

Barney Barnard, Richfield; Floyd Tincher, Harvey Lee, Union; Pat Wright, Superior; Alex Sarad, Honolulu; Barney Lindsay, Sunray; Cliff Edmonson, Walker Locke, Shell; Tom Wilson, Brazos Oil & Gas; and Charles Guion, Sam Tate, Humble.

Cliff Edmonson was nominated for Secretary-Treasurer and voted unanimously into office.

The California group's outstanding contribution to the convention was a "treatment" room where those who had imbibed too much were administered oxygen to sober them up and a drink to send them on their way.

New Orleans was very hospitable, with the French Quarter and the Mississippi River boat cruise furnishing the majority of the extra-curricular activity. The fellows confirmed that Banff will be the convention city in 1955 and Corpus Christi will host in 1956.

IN MEMORIAM

Lowell W. Saunders
1901 - 1954

Relatives and friends were deeply grieved by the tragic death of Lowell W. Saunders as the result of an automobile accident June 20, 1954, as he was returning to Bakersfield following a week-end with his family at their ranch home in Tejon Canyon.

Lowell was a native of Red Bluff, California and the son of a cattle and sheep rancher. He graduated from Stanford University in 1922 and went to work in the oil fields on the westside of the San Joaquin Valley. He served as a petroleum engineer for the California State Division of Oil and Gas in Taft, Los Angeles, and Huntington Beach. After supervising the drilling of three wells at Midway and Fellows, he took the position of district geologist for the California Petroleum Corporation later purchased by The Texas Company. A period of employment followed with the Honolulu Oil Corporation.

In 1929 he was employed by the Ohio Oil Company as district geologist and remained with them until 1935. At that time Lowell became a consulting geologist and later formed the Independent Exploration Company, now known as the Intex Oil Company. Lowell was Chairman of the Board at the time of his death.

His hobbies, gunsmithing, hunting, and photography, were well known to his friends. As a gunsmith, he was in the expert class, fashioning many of the weapons he had in his collection.

Lowell was elected to the Bakersfield City Council 2-1/2 years ago and was instrumental in planning the city portion of the new Civic Center following the earthquakes of 1952.

He was a very active member of the Stanford Alumni Association.

Lowell is survived by his widow, Edna M., four children, Doska, Susan, Mrs. Diane Lake of Bakersfield, and William Saunders, Geologist for Intex Oil Company at Santa Paula.

Other survivors include his mother and a brother, Ellison, both of Red Bluff; and two sisters, Hollis of Red Bluff and Mrs. Angie Brown of Vallejo.

We wish to express our deepest sympathy and sincere condolences to his wife, children, and relatives. Lowell was a geologist's geologist and always had a cordial friendliness and encouraging word even for the newest member of the profession.

HISTORICAL NOTE

Did you know that among the many of us at the picnic June 4 was the man most responsible for starting this popular annual event? In the late twenties Bob Moran and about twenty other geologists banded together for a barbecue in some now forgotten canyon. Bob was the master chef at this first affair. Many a gourmet will remember his barbecues during the thirties and the early forties. Bill Moran says the house was in quite a turmoil the week before these events, with beans cooking all over the place.

We were glad to see you again, Bob, and we hope you will be attending the picnics for many years to come.

BAKERSFIELD SCOUTS PICNIC

The Central California Oil Scout Association was compelled to change the date of its Annual Barbecue from June 11 to Friday, August 13.

The usual spot where previous barbecues have been held by the Scouts is not available this year and has been changed to the picnic area located east of the Kern County golf course near Hart Memorial Park.

SAN JOAQUIN GEOLOGICAL SOCIETY MEETING

Mr. David H. Sears, District Geologist for Shell Oil Company, Bakersfield, was guest speaker at the regular monthly dinner meeting at the El Tejon Hotel in Bakersfield on June 15, 1954. He presented some interesting new ideas, well illustrated with a group of kodachrome slides, in a "Progress Report on the Geology of the Central Panamint Range, Inyo County, California".

The area in question is located on the west side of Death Valley, between Stovepipe Wells on the north and Wildrose Canyon on the south, a distance of 25 miles, and is covered by the Emigrant Canyon Quadrangle, west third of the Furnace Creek quadrangle and south third of the Stovepipe Wells quadrangle.

Archean (?) gneiss crops out in two small areas, one at Wildrose Station and a larger one three miles long about 2-1/2 miles north of Skidoo on the south fland of Tucki Mountain.

Pre-Cambrian metasediments are exposed in a broad north-south trending band in the center and west flank of the range. These include a 2000-foot thick older series of fairly well metamorphosed graywackes and conglomerates with minor shales and dolomites exposed in Wildrose Canyon and on the south flank of Tucki Mountain and here called the Wildrose Canyon formation, and a widely exposed younger series of variably metamorphosed graywacke, shale, quartzite conglomerate, limestone, dolomite and gypsum beds 3000 or more feet thick. The Wildrose Canyon formation is thought to be older Algonkian, pre-Beck Spring dolomite in age. The younger series is correlated with the upper Algonkian Surprise formation and Telescope Group of the Southern Panamints and with the Kingston Peak formation of the Kingston Range. The 2000-foot thick Marvel dolomitic limestone (Beck Spring dolomite?) present between these two members just to the south is absent in the present area by truncation, thus indicating an important unconformity in the Algonkian at the base of the Kingston Peak formation.

Eastward dipping Paleozoic strata from lower Cambrian to Devonian make up the east flank of the range, with post-Devonian strata present in the still unmapped northeast portion of the area. Paleozoic formations now mapped, with preliminary thicknesses, are as follows:

Devonian	Lost Burro Formation	1500'
Silurian (?)	Hidden Valley Dolomite (?)	700'
U. Ordovician	Ely Springs Dolomite	1300'
M. Ordovician	Eureka Quartzite	400'
L. Ordovician	Pogonip Formation	1950'
U. Cambrian	Nopah Formation	1700'
M. Cambrian	Racetrack Dolomite	1950'
M. Cambrian	Bonanza King Formation	1250'
M. Cambrian	Cadiz Formation	700'
L. Cambrian	Wood Canyon Formation	2900'
L. Cambrian	Stirling Quartzite	1500'
L. Cambrian	Johnnie (?) Formation	2500'
L. Cambrian	Noonday Dolomite	200 - 1000' (thins to north)

The total thickness of these strata is 19,550', of which 13,650' are Cambrian. This is considerably thinner than the 16,600' of Cambrian strata measured by Hazzard in the Nopah Range 60 miles to the east. Lower Cambrian sediments above the Noonday Dolomite are largely shale and quartzite, and appear to be partially non-marine. Marine carbonates predominate above lower Cambrian.

Tertiary volcanics, largely dacite and andesite flows and tuffs, thought to belong in the Furnace Creek formation, (upper Miocene to lower Pliocene) are found on several ridges on the east flank of the range, dipping eastward beneath Death Valley.

The west flank of the range, including the area west of Harrisburg Flats and Emigrant Canyon, known as Pinto Mountain, is made up of Tertiary fanglomerates, called the Nova formation by Hopper, and is thought to correlate with the Funeral Fanglomerate (late Pliocene). Depositional dips indicate a northwestern source, and many monomictic breccias within this formation suggest bed by bed stripping from an eastward tilted fault block range.

Broad structural features include the east dipping monocline of Paleozoic sediments in the east half of the area, two northwest trending anticlines in Algonkian strata on the west and south flanks of Tucki Mountain, erratic folding of Algonkian strata elsewhere, and widely prevalent low angle faulting.

The latter appears to include four different groups, from older to younger as follows:

(1) Large klippen of dark gray limestone thought to be of upper Algonkian age, resting on upper Algonkian conglomerate and schist in the area from one to three miles north and east of Skidoo. May have occurred during pre-Cambrian folding, due to different competence of massive limestones making up the klippen, and underlying easily folded clastics.

(2) Isolated outliers of Noonday dolomite resting on upper Algonkian strata in the area south of Emigrant Pass. May represent minor slipping soon after early diagenesis, due to tilting of an unstable basin floor.

(3) A series of three plates, seven miles or more across, composed of post-lower Cambrian Paleozoic sediments resting on lower Cambrian and Algonkian strata, north of Tucki Wash and largely east of Mozaic Canyon, making up the north and east flanks of Tucki Mountain. The three plates are piled on top of each other, with the bottom one being no more than 2000 feet thick, the middle one probably thinner, and the top one present only as isolated remnants. The basal faults are nearly flat but steepen sharply at west end, and locally disappear to the west into bedding slippage. Strata in all three plates dip steeply to the east and the same formations are successively 1-1/2 to 2 miles farther to the east in each different plate from top to bottom. Thus, the strata in each plate rests on older strata below.

Drag effects in the bottom plate indicate movement from west to east; however, mapping is not completed and the origin of these structures is not yet understood.

(4) Spoon shaped blocks several miles across. A prominent example in Trail Canyon has shifted east dipping Cambrian and Ordovician strata about a mile to the east and thus shifted older rocks above younger. Another example between Mozaic and Grotto Canyons has shifted east dipping Cambrian beds to the northwest and thus placed younger rocks above older. May be due to gravity sliding in older Tertiary time.

Explanations based on overthrusting or compression of some sort for the low angle faulting in this area have not been resorted to for the following reasons:

(1) Thrusting younger beds over older on a large scale requires elimination or removal of basement material, which is not possible in a near-surface problem.

(2) The great compressional forces necessary to cause true thrusting will inevitably leave their stamp on both allochthon and autochthon; deformation in both should therefore be similar, and show response to the same force.

(3) Regional tectonics indicate that the area north of the Garlock fault was affected primarily by tensional forces during Tertiary time because of regional uplift centering in the Sierras and decreasing slowly to the east. The region east of the Sierras was therefore subjected to stretching and eastward tilted block faulting. Since Group 3 and Group 4 faults may be of Tertiary age, it appears unwise at present to attribute their formation to compressional forces.

ANNUAL SPRING PICNIC

Congratulations Messrs. MacKersie, Herron and Detrick for putting on a highly successful picnic! With grateful contributions of manpower and equipment from many of the service companies and oil companies, you fellows and Mr. Britt performed a bang-up job in readying Britt Park for the 345 geologists (and nearly as many cars) who attended the Annual Spring Picnic on June 4th.

Although many of us through the years have come to think of Pico Canyon as synonymous with the annual picnic, we realize that tradition must often give way to progress. Pico Canyon has always been a tinder box in June and the parking facilities were becoming next to impossible with more and more geologists attending the get-together. Britt Park offers excellent parking facilities and complete privacy. The Ventura County Fire Department generourly cooperated by having one of their trucks stand by during the firing of the pit. It is understood that improvements will be made in the picnic area by next year. We urge the continued support of Britt Park for our future picnics.

The excellent barbecue was prepared under the supervision of Mr. Wretz of Newhall. There was plenty of beef left for the late arriving golfers. Only 20 of the hardier variety of geologists stayed on all night. Homer Steiny says that he was as warm as toast and that a breakfast "a la St. Francis Hotel" was served consisting of grapefruit, corn flakes, bacon and eggs, toast and jelly and coffee. Of course, the clean-up job followed.

ANNUAL GOLF TOURNAMENT

The largest number of AAPG golfers ever, 84 to be exact, made the traverse over the Ojai Country Club during the Annual Golf Tournament on June 4th. There were prizes galore -- 41 in all were given away. Credit for staging this most successful affair goes to George Roth and Jack Beach.

Demonstrating that there are some golfers among us, Frank Yule, G.P. Coastal Area Scout, took the low gross trophy by shooting a 78. Watch this fellow Yule, Hogan! The low net trophy was captured by Kim Ham of Ross Cabeen & Assoc. with a round 80. Ham's low net score was closely followed by Sam Watson, Texas Co., Bob Titesworth, Amerada, and Bob Kelly, Conoco. High gross trophy was a runaway by Brockway, who incidentally, also took off with the low blind bogey prize.

PICNIC PERSONALS

The annual "wrestling" match between Pete Gardett and Ted Bear did not take place. Was-a-matter, fellows, is age beginning to tell?

Kemp Barley must have been raised on the farm. He pitches a mean game of horse-shoes. Tom Newbill came all the way from Santa Maria to pitch for the Garden City. Editor Lupton was seen giving the old college try. The big difficulty with pitching horse-shoes was that the beer barrel was too far away.

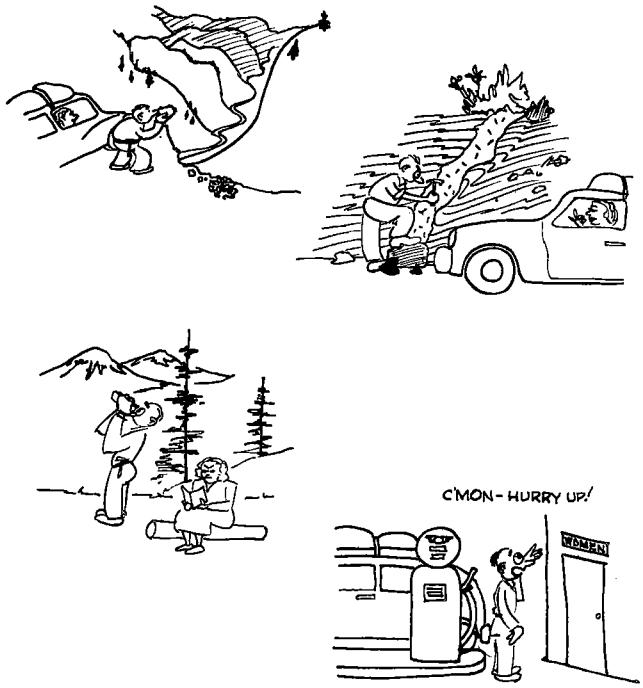
Dick Thorup came all the way from King City via Ojai. We were glad to see you Dick!

Ex-Editor Kelly was proudly displaying his new Lloyd Mangrum putter, won at Ojai. These handicaps!

BAKERSFIELD ACTIVITIES

The Association of Petroleum Wives held their annual summer informal dinner dance at the Bakersfield Country Club on June 12th. About 125 couples enjoyed the gala affair following the theme "Vacation Cruise", with Knoel Cragen's orchestra providing the tunes. The food was excellent, the girls beautiful, and the entertainment was enjoyed by all. A bouquet to the girls for one of the best parties the Association has ever had.

ANDY CLINE (VACATION DEPARTMENT) by Sullwold



PERSONAL ITEMS

The reorganization meeting of the Eastern Nevada Geological Society was held June 9, 1954 at Ely, Nevada, with past President John Wiese of Richfield Oil in charge. Forty-two people from fourteen oil companies were present. Walter Smith, Shell Oil, was elected President, Bill Bishop, Richfield Oil, Vice President and Elmer Hutchins, Shell Oil, Secretary. The meetings will be held the last Thursday of each month.

T.W.A.O.Co's annual spring picnic for Southern California Land and Geological people came off with howling success over the Memorial Day weekend. This was no doubt due in part to the presence of two and one-half dogs, in addition to the 52 odd geologists, wives, children, secretaries and what have you. The three-day outing took place at Refugio Beach State Park, with Tom Roberts supplying the water-skiing thrills and Bea Landry mopping up at the Saturday nite poker party.

Louie Canut, a June graduate in the Geological Sciences at UCLA is a new employee of The Texas Co. at Taft.

D. H. (Doug) Thamer, geologist for The Texas Co. at Taft, has been transferred to Ely, Nevada.

Les Schultz, General Petroleum, is recovering from minor surgery and is expected back at work in a week or so. Rumor has it that he had a lump on his head removed. Sounds like Lupton is getting rough these days.

E. L. McDowd, Shell Oil Company Chief Scout for the past umpteen years, retired on July 1st and is planning an extended motor tour up the Coast to British Columbia, then over to the Canadian Rockies for some fishing. Mac has been feted at many luncheons and dinners for the past two weeks and reaped enough loot to re-outfit his trailer complete with hunting and fishing gear. Mac will be replaced as Chief Scout by Bill Thomas, who for the past several years has been covering the Rocky Mountain area and before that the Ventura and Coastal areas. We wish the best of luck to them both.

On a recent fishing expedition at a slough south of Sacramento, Bob Lankford, paleontologist, Standard Oil Company, caught a bass that fought so hard it pulled him into water up to his shoulders. We have only Bob's word as evidence, for the fish was never landed. No matter which way you look at it, it was either a mighty big fish or a mighty big story.

During the Scouts' association picnic, June 4th at Green Valley Country Club, we saw Standard Oil Company 'geophysicer' Bob Brace, looking for the "base of weathering" with a driver, on the first tee.

Jack West, District Geologist for Seaboard Oil Company at Bakersfield, California, has announced his resignation. Following a short vacation, Jack will be affiliated with Hancock Oil Company at Bakersfield in the same capacity. Jack says "leave California geology to California Geologists and leave the Great Basin geology to those who like it".

Will Kanagy, Seaboard Oil Company geologist at Bakersfield, has received his orders and will report to Seaboard's New Orleans office sometime in July.

Jim Babcock, who recently received his Master's degree from UCLA, has joined the staff of The Texas Company as Jr. Geologist at Santa Paula.

J. P. Bailey, Standard Oil Company at Los Angeles, was recently appointed Sr. Geologist in charge of special projects for Standard's Southern District, with offices in Los Angeles. He will be succeeded as Southern District Geological Supervisor by E. C. H. Lammers, from Salt Lake City. S. J. Kriz, formerly Area Geologist at Ojai, has been transferred to Salt Lake City to replace Lammers.

Helen Duggan, Richfield geologist at Long Beach, and Adele Brockman, secretary to Mason Hill at Los Angeles, have started an extended Alaskan cruise. They left Seattle June 23rd and will be gone approximately three weeks.

Rufus Smith, Continental Oil Company, has been transferred from the home office at Houston to Los Angeles. The transfer was made effective June 1st so that Rufe could arrive in Los Angeles in time for the annual spring picnic at Torrey Canyon.

A. E. L. (Tony) Morris, Consultant, Los Angeles, and his family spent a weekend as the guests of the Joe Parmenters at Bakersfield and renewed acquaintances with old friends and fellow South American commuters. Tony and his family returned June 3rd via steamship from an extended stay in Peru for Douglas Oil Company.

The Pro at the Ojai Country Club found a pair of golf shoes following the golf tournament in connection with the annual Spring Picnic at Britt Park (Piru) on June 4, 1954. Shoes are presently in the possession of Tom Fitzgerald, Consultant, 412 Haberfelde Building, Bakersfield, California, and may be claimed by the owner.

Wayne M. Smith, Manager of Exploration for Bell Petroleum Company at Los Angeles resigned that position early in June. Bud plans to take a short vacation, then do a limited amount of consulting. He intends to operate from an office in his home, 436 - 21st Street, Manhattan Beach, Phone: FR 2-5387. We wish him all the best in his new venture.

Ed Parker, Standard at Oildale, has been transferred to Ojai and is being replaced by John A. Mann, now at Oildale.

Bill Osborn, a graduate of Tulsa University and more recently a trainee for Continental Oil Co., has received his first assignment in the Geological Department at Ventura.

Pat Reed, T.W.A.O.C. secretary, and Ken Bishop, Continental geologist, were married June 1 in Yuma, Arizona. Continental extended their wedding trip by transferring Ken to Olympia, Washington immediately upon his return to Ventura.

Barney Barnard, Richfield Scout at Bakersfield, has been admitted to the hospital in Bakersfield for minor surgery and to give his ulcer a rest after the Scouts Convention at New Orleans.

Leigh Wood, M.J.M.& M. secretary, and Larry Nichols, Schlumberger engineer, were married in Ventura on June 5. Wonder if Bob Herron instigated this match as a means of getting electric logs on "no dope" wells.

Homer Steiny, geologist, attended the Zeta Psi Convention at Chapel, North Carolina as Pacific Coast delegate. While in the east, Homer visited Washington D.C. to study the geology of building materials currently being used there. The highlight of the trip was a sightseeing tour on a "rubberneck" bus, about which the details are a little obscure but the mention of "romance and cherry blossoms" brings an extra twinkle to his eye.

Jack Morrison has joined the Ventura staff of General Petroleum Corporation. Jack is a recent graduate of Oregon State College.

John Forman, General Petroleum geologist, is on temporary assignment in the Los Angeles office.

Frank Wang is the latest addition to Western Gulf's geological staff in Ventura. Frank recently graduated from the University of Washington.

Bob Herron, M.J.M.& M., has apparently tired of his commuting from Fillmore to Ventura. The Herrons have bought a home in Ventura and will move in soon.

David Callaway, Oceanic, was recently transferred from Bakersfield to their Ventura office.

NURSERY NEWS

Jim Vernon, Texas Company geologist at Santa Paula, and his wife Doris, announced the arrival of their new son John Charles, born May 23rd at Santa Paula, weighing 13 lbs., 7 oz.

Earl C. (Mick) McKnight, Standard Oil Company geologist at Los Angeles, has finally passed out cigars announcing the arrival of his young son, Michael Lans, born June 3rd, weighing 9 lbs., 12 oz.

Mr. and Mrs. John Forman, General Petroleum at Ventura, announced the arrival of their newest addition, a daughter, Jennifer Lynn, on May 25th. They also have a son 20 months old.

To Mr. and Mrs. Ed Hall, Union Oil at Santa Paula, a girl, Martha Joanne, born June 12th and weighing 9 lbs., 11-1/2 oz.

John and Shirley Gates, Western Gulf at Ventura, welcomed the arrival of a daughter, Sandra Maria, born June 7th and weighing 7 lbs., 9 oz.

R. H. (Bob) Dott, Humble at Eugene, Oregon, welcomes the arrival of his new field assistant, James Robert Dott, Jr., born June 17th, scaling 7 lbs., 8 oz. This is the first child for the Dott's.

CALENDAR

July 8, 1954: Thurs., Noon, S.E.G. Luncheon, Biltmore Hotel. Bernard S. Benson, of the Benson-Lehner Corporation, will discuss the "Information Theory". For reservations call Forrest Lambrecht, Trinity 9271.

July 8, 1954: Thurs., 6:30 P.M. A.I.M.E. Jr. Petroleum Group monthly dinner meeting at the Turf Club, Anaheim-Telegraph Road and Rosemead Blvd. The subject will be "Drain Hole Drilling as a Method of Increasing Recovery". Speakers will be Bill Zublin, Universal Engineering Co., and Carl Spath, Wm. E. Sievers Corporation. Representatives of operating companies will give comments on the results obtained by this method. For reservations call J. P. Garten, Long Beach 6-9918.

July 26, 1954: Mon., 7:30 P.M. A.I.M.E. Petroleum Forum - Engineers' Club, Biltmore Hotel - Cocktails at 5:30, dinner at 6:30. Dr. Norris Johnston will speak about "Prediction of Floodability of Oil Sands". For reservations call Charles F. Gallagher, Michigan 6507.

July 28, 1954: Wed., 6:30 P.M. All Sections Meeting A.I.M.E. Engineers' Club, Biltmore Hotel. Movies on "Birds, Bugs, and Flowers", by S. Paul Lindau. Call Jack Eggers for dinner reservations, Twinoaks 8387.

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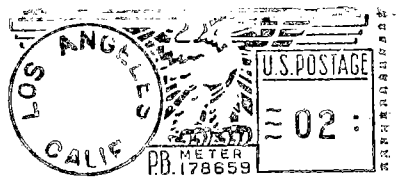
"Oil is Still Being Made". Pp. 161, 170.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

Vol. 8 No. 7



Mr. F. R. Neumann
381 E. 4th St.
Chico, Calif.

Form 3457 requested

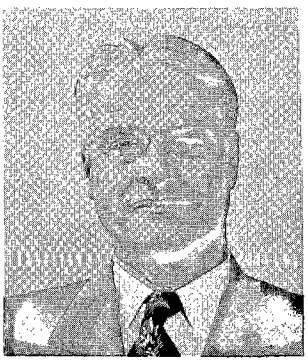
PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 August 1954 No. 8

ASSOCIATION ACTIVITIES

IN MEMORIAM



Friends and associates of Clifton W. Johnson were stunned and saddened at the news of his tragic death in an auto accident near Crestline in the San Bernardino National Forest, Tuesday, July 6, 1954.

"Clif" Johnson was president of the Pacific Section, A.A.P.G. in 1948-49, and had also served as arrangements chairman for the annual convention, secretary-treasurer and program chairman. He had been associated with Richfield Oil Corporation in petroleum geology for the last seventeen years and as a staff geologist, he had attained a very responsible position.

A native of Forest Grove, Oregon, where he was born May 8, 1905, Johnson became a Californian at the age of eight, when he moved with his family to a fruit ranch in San Diego County. He attended elementary and high schools in the El Cajon Valley and received his A.B. degree with a major in geology at Pomona College in 1927.

Continuing his education at the University of California at Berkeley, he completed one and a half years of graduate work in the Department of Geological Sciences on a teaching fellowship in 1929.

Practical application of Clif's training came first in the Los Angeles Basin where he worked with drilling and production crews and served as a field scout for Union Oil Company in 1929-30. He later served as groundwater geologist for the California Division of Water Resources and had served for a short time as a geological scout for Standard Oil Company of California before joining Richfield.

A lover of nature and outdoor activities, Johnson had a hobby of long standing in deep sea and shore fishing along the coast from Santa Barbara to Ensenada. He was also fond of gardening and had made a specialty of camellia culture. His sizable collection included both rare and common varieties, to which he had added by grafting and rooted cuttings. He had also experimented on soil culture, temperature effects and nutrient solutions. He was a member and former director of the Southern California Camellia Society and was a member of the American Camellia Society. His blooms consistently won prizes at the annual Southern California Camellia Show in Pasadena and he was unsparing with his time and effort in helping those interested in camellias.

Young people were another absorbing interest for Clif and he had been active in Boy Scout and Cub Scout work for many years as a leader and counselor. His efforts added much to the enjoyment of many at the Scout Jamboree at Irvine Ranch last year.

In addition to a very full life of job, home, civic and professional services and hobbies, Clif maintained an active interest in pure geology, as attested by his recent (March 1953) American Journal of Science publication on the "Geology of Guadalupe Island, Mexico," from data he gathered on a 1951 oceanographic cruise. He was always ready to counsel and help his fellow geologists, especially the younger ones who were learning their way in the profession.

As friends and associates, we join with Mrs. Johnson and Clifton, Jr., in their deep sense of loss and extend to them our sincere condolences.

Private services were held for Clif at the San Marino Community Church on July 9, 1954. For those interested, contributions to the C. W. Johnson Educational Fund may be sent to the San Marino Community Church, 1750 Virginia Road, San Marino, California.

A.A.P.G. LUNCHEON MEETING

Mr. Charles Pollak, Pacific Coast Editor of McGraw Hill Petroleum Publications, was the guest speaker at the monthly luncheon meeting at Rodger Young Auditorium on July 1st. He presented a highly informative and entertaining discussion on the topic "Oil Industry Press Relations."

Many oil companies have press relations men whose duty it is to keep the public informed of recent company happenings as well as the general nature of the job which the oil industry is performing for the community. Much of this information is circulated by the 'trade press', Mr. Pollak's term for business publications which serve the petroleum industry. The trade press helps oil industry workers in the following way:

1. Provides spot news and inside news of oil happenings.
2. Describes new and improved working methods and procedures.
3. Provides statistics on oil industry items.
4. Publishes special issues, maps and charts which provide essential oil information.
5. Presents some editorial opinion.

Since the trade press is always interested in presenting the latest and most pertinent news items it is continually in contact with top management and frequently encounters the following attitudes:

1. "The less said about our company the better." (However, when this company brings in a 5,000 barrel a day well it expects the ultimate in publicity.)
2. "This will have to be checked by higher headquarters in Pango-Pango." (Some companies refuse to allow the local office any authority regarding press releases.)
3. "Mr. Blank is at a meeting." (In some companies the executives are always at a meeting.)
4. "Naturally this is off the record." (Everything issued by some companies is off the record.)

Mr. Pollak closed his very interesting talk by making a special plea to oil companies to keep the chain of command between the press relations people and the top executives at a minimum. The purpose of the company press relations men and the trade press is to serve the oil industry and this cannot be done without readily accessible information.

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	Bob Sanem
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San Joaquin Representative:	Quentin Moore

Next deadline August 27

SACRAMENTO GEOLOGICAL SOCIETY MEETING

On Tuesday, June 8th, Dr. William I. Gardner, Chief, Geology Branch, Planning Division of the Bureau of Reclamation at Sacramento, gave a very interesting and well illustrated talk on "A Trip Through Iraq," illustrated with Kodachrome slides.

Dr. Gardner spent two months in Iraq this past year, investigating the area with special reference to ground-water development and its integration with surface water developments, in order to lay out a program of ground water investigations and of development by water well drilling contracts.

Dr. Gardner gave a general picture of the physical and geological setting of Iraq, which is chiefly a desert lowland country occupying the Mesopotamian plain and crossed by the Tigris and Euphrates rivers, both of which originate in the rugged mountains of Turkey to the northwest. The Tigris is also fed by a number of tributaries flowing southwest from the uplands of Iran. Iraq is bordered on the northeast by the mountainous country of Iran and on the southwest by the plateau country of Saudi Arabia.

Geologically the Mesopotamian plain is a great northwest trending syncline. The sediments beneath the plain are upwarped on the northeast and the southwest. Permeable water-bearing beds, chiefly the continental Bakhtiari formation, are believed to be at depths of several thousand feet in the axis of the syncline.

The water supply of Iraq is primarily from the two principal rivers and their tributaries, because the annual rainfall in much of Iraq is less than four inches. Locally, in the northeast uplands, it amounts to as much as twenty inches.

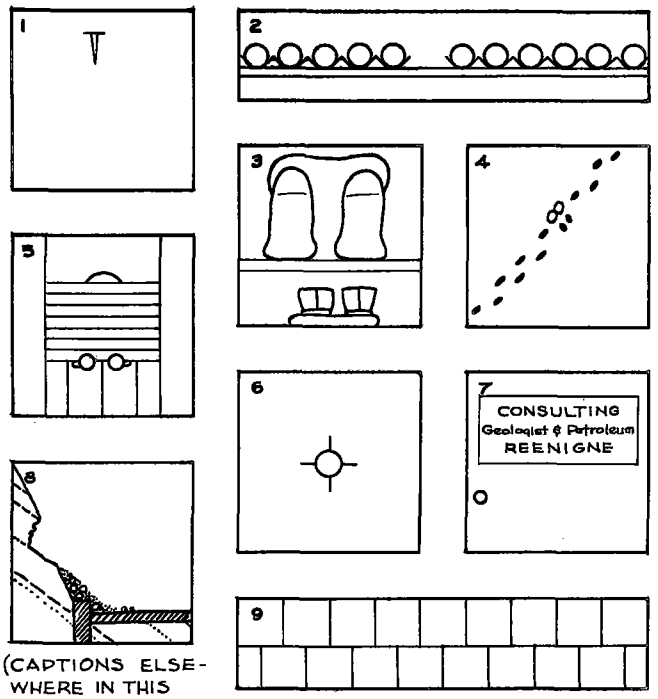
Ground water development to date is chiefly from springs and from Kharizes (Kanats) tunnels dug to intersect the water table so that water will flow by gravity to the outlet. Exploratory shafts are constructed first to determine depth to a satisfactory aquifer upslope from the planned portal. The main tunnel is constructed by sinking shafts at intervals of one hundred feet to two hundred feet and digging a connecting tunnel from one shaft upslope to the next, until the water table is intersected.

One large oil field of Iraq, the Kirkuk Field, is near the Iran border. It is operated by the English and oil is delivered by pipeline to the Mediterranean Coast in Lebanon. Current production is about a half-million barrels per day. The wells are of a very large capacity and produce from limestones of the Tertiary Asmari formation. Actual production is far below the individual potential capacity of the wells.

Dr. Gardner concluded his talk by showing an excellent series of Kodachrome slides illustrating the general geography, culture, customs of the people, water supply developments, and the ruins of a number of ancient cities famed from Biblical times.

GEOLOGY DROODLES

(APOLOGIES TO ROGER PRICE) by sullwold



(CAPTIONS ELSEWHERE IN THIS ISSUE-)

PERSONAL ITEMS

Irv Frazier, Texas Company scout in Los Angeles, has been working at his photographic hobby. He spent last weekend at Long Beach photographing the Miss Universe contestants. He relaxed from his official duties only for a few minutes to make a photographic record of some of the local female talent beaching a sailboat. You can rest assured he is very proficient with a camera.

Mark White, Standard Oil Company paleontologist at Los Angeles, spent a very constructive vacation this year. He started to build a cabin at Coeur d'Alene, Idaho, and in three weeks time poured the foundation, laid the floor and put on the roof and rough siding. He is now back at work nursing his blisters.

Orrin Gilbert, Standard Oil Company geologist in Los Angeles, has decided to go out of the trailer business, and sold his last teardrop trailer. The purchasers were two very attractive coeds from U.S.C. After the sale was completed, Mrs. Gilbert decided that Orrin could keep the house trailer.

Loyal Nelson and Ray Stein are leaving Barratt and Bysshe; Loyal to go into consulting and Ray to rejoin the staff of Rothschild Oil Company.

Ernie Lian is back from the wilds of Arizona and has resumed his duties as Assistant Editor of the Newsletter. Bill Kennett, who ably substituted for Ernie for about three months, has retired to the seclusion of the Edison Building. Thanks for a good job, Bill!

The geological department of Superior Oil seems to be water-minded. George Wheatley has acquired a 14-foot glass runabout with Johnson 25 outboard motor. Jack Nair and Warren Hagist are co-owners of an 18-foot runabout and a Mark 50 Mercury motor, Nair owning the motor and Hagist the hull. Al Nelson is half owner of a cabin cruiser powered by two 16 h.p. outboards, and it is reported that Bill Kennett has been eyeing the lake behind Hansen Dam. Incidentally, Wheatley and Nair are spending this week at Bass Lake learning to water ski. Wonder what happened to Hagist?

Loyal E. Nelson has resigned as Chief Geologist for Barratt & Bysshe and has opened a consulting office at 1115 San Vincente Blvd., Santa Monica. Phone - Exbrook 5-2979.

John Oglesby, scout for Monterey Oil in Bakersfield, is in a Bakersfield hospital with a broken neck sustained while diving in the Kern River on July 18.

Hank Neel, Tidewater-Associated at Ventura, experienced a near miss two weeks ago. At about midnight on July 10, while Hank and his wife were in the kitchen, an F-94 pursuit plane from the nearby Oxnard Air Base crashed on the take-off. The plane, flying at an estimated 500 miles per hour, missed the house by about 400 feet and plowed into Hank's lemon orchard, tearing up about 200 lemon trees and several eucalyptus trees up to about a foot in diameter. It is reported that the biggest piece remaining of the plane was three feet square.

Curtis Johnson, formerly Assistant Chief Geophysicist with General Petroleum and more recently in charge of all offshore activities for G.S.I., is scheduled to move again. Curt will be resident director of Geophysical Service of Nederland, newly formed to engage in geophysical operations in Europe, Asia and Africa, and will headquarter at the Hague, Holland.

Everett C. (Eddy) Edwards would like to announce a change in his phone number at Corona Del Mar. The new number is Harbor 1662.

We understand that "Mac" MacMillan, Texas district geologist at Bakersfield, is indifferent to his surroundings when confronted with a knotty problem in plumbing, especially when the problem is in the "Powder Room."

Paul Elliott, Western Gulf at Los Angeles, was seen dancing with the Indian squaws at the Terwilliger Valley hoe-down last weekend. It is rumored he is now expert in the sport of Indian wrestling. Immediately after the dance, he became the cross country champion of the Terwilliger Valley, with the squaws in hot pursuit.

Goudkoff and Hughes have opened a branch lab in Bakersfield with Aden Hughes in charge. Address is 307 Fourth Street, Fairview 5-8468.

Bob Orwig, General Petroleum, and Mike Rector, Union, in Sacramento, are holding up under the heat this summer better than most of the Sacramento oil people. The lucky guys are members of the McClellan Air Base Officer's Club and can be seen nightly at the edge of the pool with drink in hand.

Rod Geddes, formerly with Southern California Gas Company, has joined the staff of Stanley, Stolz and Dodson in Los Angeles. Rod seems to have gone into hibernation since joining the new company.

NURSERY NEWS

Grace and Bill King, Shell at Sacramento, announce the arrival of Patricia Lee King, born Friday, July 9th. Patricia Lee weighed in at 6 lbs. 12 oz., and is the King's third child and second girl.

Ed Wellbaum, Kern Oil Company at Los Angeles, and wife, Mary, welcomed the arrival of their second child and first son, Master James Graham Wellbaum, born July 7, 1954 and weighing in at 8 lbs., 6-1/2 oz.

Joyce and Johnny Norden, Union at Sacramento, welcomed the arrival of their first daughter and third child, on June 26th. Meredith Gail weighed in at 7 lbs., 12 oz.

To Lois and Harold Lian, Union at Santa Paula, a boy, George John, born June 24th and weighing 7 lbs., 10 oz.

DROODLE CAPTIONS

1. Geologist working on an outcrop over a cave.
2. Wildcat with three feet of oil sand.
3. Geologist working on a real large map.
4. Place where field man had lunch.
5. Geologist trying to go through narrow door with armload of maps.
6. Pessimists droodle.
7. Petroleum consultant who has not registered with the state.
8. Cross-section of road-cut where geologist has been.
9. Left lateral fault (or maybe right lateral fault).

How about sending in your ideas and see them in print? Simple ones like 1 and 2 are most typical.

BIBLIOGRAPHY OF RECENT PUBLICATIONS

SCIENTIFIC PUBLICATIONS - JOURNALS AND BULLETINS

Geological Society of America - Memoir 61
"Stratigraphy and History of the Moenkopi Formation of Triassic Age." Edwin D. McKee

State of California, Department of Natural Resources, Division of Mines - Special Report 39
April 1954
"Barite Deposits Near Barstow, San Bernardino County, California." Cordell Durrell

TRADE JOURNALS AND MISCELLANEOUS MAGAZINES

Petroleum World - June 25, 1954. Vol. 51, No. 25
"The Wilmington Pilot Water Flood." D. R. Johnson and T. A. Johnson, Jr. Pp. 7-11, 33.

"So You Want to Drill in the Tidelands!" E. E. Pyles. Pp. 20-21.

Oil Forum - July 1954
"Offshore Oil -- A Multimillion Dollar Play." T. S. Peterson. Pp. 242 - 244.

Oil and Gas Journal - July 5, 1954. Vol. 53, No. 9.
"Diving for Oil off California." T. A. Armstrong. Pp. 104-105.

World Oil - July 1954. Vol. 139, No. 1.
"More Oil Can Be Found Along The West Coast." Graham B. Moody. Pp. 61-62.

World Petroleum - July 1954. Vol. 25, No. 7.
"Man-Made Island Provides Drilling Site." P. 40.

CALENDAR

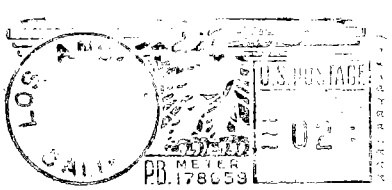
August 12, 1954: Thurs., 6:30 P.M., A.I.M.E. Jr. Petroleum Group Dinner Meeting at the Turf Club, Anaheim-Telegraph Road and Rosemead Blvd. The meeting will be a symposium on "All Types of Rodless Bottom Hole Lifting Devices, Gas Lift and Power Oil Driven Pumps." Approximately six speakers will represent the companies that produce these pumps. Working models of all types will be shown. Also the pump companies are preparing a syllabus of all pump equipment and operating conditions. The syllabus will be given to all persons attending the meeting.

August 23, 1954: Mon., A.I.M.E. Technical Forum and Dinner Meeting. Engineer's Club, Biltmore Hotel. Cocktails 5:30, dinner 6:30, Forum 7:30. Mr. George B. Mangold, Chief Engineer, Petroleum Engineering Associates, Inc., will speak on "Applications of Differential Thermal Analysis for Zonal Correlations."

There will be no meetings held by the Pacific Section, A.A.P.G. or by the Sacramento, San Joaquin or Coastal Geological Societies during the month of August.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

No. 8 Vol. 8



Mr. F. R. Neumann
381 E. 4th St.
Chico, Calif.

Form 3547 requested

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 September 1954 No. 9

ASSOCIATION ACTIVITIES

COAST GEOLOGICAL SOCIETY MEETING

Dr. Thomas L. Bailey, consultant, was the principal speaker at the regular dinner meeting of the Coast Geological Society at the Montecito Country Club on Tuesday, July 13. Dr. Bailey's subject, "Pleistocene History and Water Resources of Oxnard Plain and Vicinity," attracted a large audience who initiated a lively discussion period at the end of the talk.

The Pleistocene of the Oxnard Plain and lower Santa Clara Valley consists of (1) a thick Lower Pleistocene division that is strongly folded like the underlying Pliocene and lies conformably on the Pliocene and (2) a thin Upper Pleistocene division that is only gently warped or nearly flat and lies unconformably upon the truncated edges of the Lower Pleistocene. This great angular unconformity represents the culmination of Coast Range orogeny with its rapid uplift and erosion. The Ventura anticline first came into existence in the Middle Pleistocene and the highlands bordering the Oxnard Plain were raised above the sea floor and strongly folded and faulted. Except for its margins, most of the Oxnard Plain was a lagoon or salt marsh slightly below sea level until late Pleistocene or early Recent time. This plain was built above the sea as a delta of the Santa Clara River which wandered back and forth across it and deposited several hundred feet of alluvial gravels, sands and muds. The southeastern part of the plain including the U.S. Naval Air Missile Test Center near Pt. Mugu was a salt marsh until 15 or 20 years ago when it was drained.

The Lower Pleistocene is divisible into two mappable lithologic units, the Santa Barbara formation below and the San Pedro formation above.

The Santa Barbara formation consists of a marginal sand and gravel facies, called the Grimes Canyon sand and gravel, and a deeper water facies, the Mud Pit mudstone or blue shale.

The Grimes Canyon gravel outcrops in Grimes Canyon and southeastward, mostly on the south flank of Oak Ridge where it is several hundred feet thick. It grades into a fine sand ranging from 20 feet thick in Los Posas Hills to 1000 feet thick in the southeastern part of the Oxnard Plain. This marginal facies is a good aquifer but the lower half or sometimes all of it contains brackish or salty water in most of this region, so that few wells derive their water from it. At Santa Barbara and Rincon Point it contains a prolific marine megafauna. The upper half is characterized by a cool water fauna with Pecten caurinus and the lower half by a warm water fauna with abundant Pecten bellus.

The Mud Pit mudstone facies underlies the northern two-thirds of the Oxnard Plain and crops out extensively on both flanks of the Ventura anticline, toward the west end of South Mountain and on the south flank of South Mountain-Oak Ridge. It is 1500 to 3500 feet thick and contains thick lenses of poorly sorted silty gravel north of Saticoy and Santa Paula. It consists mainly of blue mudstone and silty clay containing numerous small ankeritic concretions that weather to limonite. The upper 1000 feet contains an abundance of Pecten caurinus and other cool water megafossils. As in the marginal facies, the lower part contains abundant forams, and some gravel and sand beds toward the base carry rare Pecten bellus and other warm water extinct gastropods and pelecypods. The base of the Pleistocene is placed at the base of the cool water Pecten caurinus zone which is considered to mark the first glacial advance farther north. However, Dr. Woodring includes all the Santa Barbara in the Pleistocene, in spite of the warm water fauna with numerous extinct (probably Pliocene) species in the lower half.

The only vertebrate fossil is one rusty-stained Pleistocene horse (Equus) tooth found in the rusty gravel near the head of Grimes Canyon, between Fillmore and Moorpark.

The San Pedro formation rests conformably on the Santa Barbara and is generally between 1000 and 3500 feet thick. Near Ventura and on South Mountain, most of it contains a large marine warm water (interglacial) fauna, only 5-1/2 per cent of which are extinct; eastward the upper two-thirds progressively interfingers with unfossiliferous, probably non-marine beds. North of South Mountain-Oak Ridge the San Pedro consists of alternating silts, sands and gravels. The cleaner sands and gravels constitute the deeper aquifers of the northern and western Oxnard Plain and many deep wells yield as much as 60,000 barrels a day of fresh water that is hard, but satisfactory for irrigation. South of South Mountain the lower 200 to 500 feet of San Pedro is mostly gravel and coarse sand. This is the Fox Canyon member and it constitutes the principal aquifer for Los Posas Valley and the Camarillo region where shallower alluvial aquifers are thin. It underlies the southeastern three--quarters of the Oxnard Plain and several deep wells yield as much as 3,600 gallons a minute or over 126,000 barrels a day.

Pleistocene horse teeth and bones of a Pleistocene diving goose in the lower 400 feet of the San Pedro prove the Lower Pleistocene age of the whole formation. The presence of Pliocene horse teeth in the non-marine Saugus near the type locality and the interfingering of Saugus gravels with Pico marine beds a few miles west of Saugus demonstrate that the San Pedro of the Ventura basin west of Fillmore and Moorpark is not Saugus, although many geologists in the past have misapplied the name Saugus to the San Pedro formation.

The second and later Pleistocene glaciations probably occurred during Coast Range orogeny and are lost from the stratigraphic record.

The 200 to 600 feet of Upper Pleistocene, mostly alluvial gravels, sands and silts that rest unconformably upon the San Pedro, are recharged by the Santa Clara River and constitute the principal aquifer of the Oxnard Plain. Probably 75 per cent of the water wells in this plain derive their water from these shallow, nearly flat lying aquifers. Overdraft has pulled down the water level over most of the plain from 10 to 30 feet below sea level and a few wells in the city of Port Hueneme have become too salty to use. Except for ready entry of salt water into the Upper Pleistocene aquifers near Port Hueneme and its entry into San Pedro aquifers west of the mouth of Ventura River, the Oxnard Plain is fairly well protected from salt water invasion by a thick layer of recent lagoonal mud that underlies the coastal margin of the plain. The overdraft by

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	Bob Sanem
Coast Representative:	Rodger Dungan
Northwest Representative:	Rodger De Yoe
Sacramento Representative:	Don Barrett
San Francisco Representative:	Glenn Lansing
San Joaquin Representative:	Quentin Moore

Next deadline September 24

pumping wells is now being remedied by the construction of Santa Felicia dam on Piru Creek from which water stored in the winter will be released in the summer to replenish the Pleistocene aquifers and try to prevent further increase in sea water intrusion.

COLLEGE LUNCHEONS

Arrangements have been made for College Luncheons to be held during the convention at the Biltmore on November 12th for alumni of U.C.L.A., Cal., U.S.C., Stanford and Caltech. Alumni from other schools interested in a luncheon reunion should make their own arrangements and notify Dana Detrick, Shell Oil Co., Madison 7341, so that notices and sign-up lists can be provided at time of registration.

PACIFIC SECTION DIRECTORY

Revision sheets for the 1953 Directory of Pacific Section, A.A.P.G. - S.E.G. and S.E.P.M. members will be ready sometime in November. Warren Hagist, Superior Oil Co., succeeded Ed Wellbaum as Directory Chairman. Warren states that in the near future, members of the three organizations will be sent cards requesting the data necessary for the revisions. Those not having pictures in the 1953 Directory will be asked to submit a suitable print. The members of the A.A.P.G., S.E.G., and S.E.P.M. can co-operate by returning the information cards as soon as possible.

BRANNER CLUB OFFICERS

The Branner Geological Club held its 33rd Annual Spring Meeting at Caltech on April 27, 1954. Officers elected for the 1954-55 term are:

President: John Mann, Professor of Geology, University of Southern Calif.
Vice-President: James Dorrance, Texas Company
Secretary-Treas.: Richard Stone, Graduate Student, University of Southern Calif.

IN MEMORIAM

A major figure passed from the geological scene of the Pacific Coast with the death of John Peter Buwalda on August 19, 1954. Born in Michigan, reared in the state of Washington, educated and matured in California, John Buwalda in his 67th year was at the climax of a distinguished career in geological education, administration, research, and public service.

His scientific interests ranged from vertebrate paleontology to engineering geology and touched on nearly all phases of the earth sciences. Although he had not worked directly or extensively in petroleum geology, he had many acquaintances in the profession and a deep and continuing interest in the subject. Indirectly, he contributed much to petroleum geology through his basic work in structural and engineering geology as well as through his many students now working in the petroleum industry.

John Buwalda made a major part of his contribution to the society in which he lived by applying his geological knowledge, experience, energy, and skill to two of the major problems confronting the southern California community, earthquakes and water. His first-hand knowledge of the faults in the southern half of California was detailed and extensive as he had been a student of this subject for more than 40 years. Through his teaching, writings, countless lectures, and private conversations, Dr. Buwalda helped create an awareness of the earthquake problem in California, and in showing the way, with his engineering colleagues, toward a successful mode of "living with our earthquakes" through construction of earthquake-resistant buildings.

The Metropolitan Water District aqueduct from the Colorado River is a major engineering achievement and an absolute necessity to the life and welfare of southern California. The long, arduous geological investigations leading to selection of a satisfactory route that combined economy with safety in the best possible way were made largely by two men, the late F. L. Ransome and John P. Buwalda. Their influence and guidance in the selection of the final route was a contribution of high order.

John Buwalda also applied his talents as an engineering geologist to the location of water tunnels and dam sites, both for storage and conservation and for purposes of controlling floods. He has been active in guiding searches for ground water and in championing its conservation and proper use. He served many southern California cities, counties, and other organizations, such as the Boy Scouts, in an advisory capacity on geological problems, and not infrequently without fee. During World War I he served on the U. S. Geological Survey and for many years was a Research Associate of the Carnegie Institute.

Unlike many academic geologists, John Buwalda devoted much of his time and effort to local areas, resisting the call of seemingly greener pastures in more distant parts of the land. Significantly, he chose to use his scientific knowledge and skill in large part for the immediate and direct benefit of the people in the region in which he lived. One of his most impressive public services was as a member of the Yosemite Park Board for 26 years. Dr. Buwalda participated actively in the affairs of the major geological societies, including the American Association of Petroleum Geologists, both as a member and in many instances as an elected officer.

In addition to many scientific accomplishments, Professor Buwalda served with distinction as an educator and academic administrator, first at the University of California, then at Yale, and finally at the California Institute of Technology to which he was called in 1926 at the age of 39 by Robert A. Millikan to initiate and develop work in geology. Under his direction the Division of Geological Sciences at Caltech had risen from nothing to a strong, well integrated and broadly based educational and research organization.

John Buwalda was the product of the teaching and inspiration of such outstanding figures as Andrew C. Lawson and John C. Merriam. He in turn successfully carried on the tradition of inspirational education to which he had been introduced by these men, adding his own flavor and seasoning in the process. His sound and stimulating lectures in elementary geology converted many students to a lifetime career in geology or geophysics. He also taught a heavy schedule of advanced courses in various geological subjects. His students are now widely scattered through industrial, commercial, and academic environments and occupy important posts therein. They constitute one of his finest contributions to the earth sciences.

John Buwalda was at his best in the field. He was an excellent field man, had an amazing store of knowledge on field areas, and enjoyed giving untiringly of this experience and knowledge to students, associates, and friends. A field trip with him anywhere in the western country was a rare treat. His last day was spent in the field in an area he knew and loved amid the scent of pines and chaparral brush. This is the way he would have wanted it to be.

In Memoriam

BURTON R. ELLISON
1913 - 1954

Relatives and friends were shocked and deeply grieved at the sudden death of Burt Ellison the morning of August 4, 1954 in Bakersfield, California.

Burt was a native of Los Angeles and during his early years he lived in several towns in Southern California and Utah. At one time during his childhood he lived in Maricopa and perhaps it was there he was exposed to influences that were later to guide him into the geological profession.

Burt attended high school in Los Angeles and continued on to the University of California at Los Angeles in the fall of 1932. He graduated in geology from U.C.L.A. in the summer of 1936. While doing upper division work he availed himself of the opportunity of studying micropaleontology under the tutelage of Wilbur Rankin and he chose to continue in this line of work after graduation.

In 1936 Burton was employed by the Standard Oil Company and went to work in the Taft office as micropaleontologist. During his 12 years as an employee of the Standard he performed a variety of chores for the company and among other things became highly respected for his intimate knowledge of the geology of the west side of the San Joaquin Valley. During the latter part of the war years he worked in Elk Hills and was instrumental in guiding the extensive exploratory drilling program in progress at that time.

Subsequent to his employment by Standard, Burt moved to Bakersfield and opened a consulting office. During his years as consulting geologist and engineer he was retained by Universal Consolidated Oil Company and Steele Petroleum Company. While working for these and others Burt had ample opportunity to exercise his geological talents in various parts of the state. He did particularly extensive work in Tejon Hills, Coalinga, McLure Valley, McKittrick and Cuyama Valley districts.

At one time Burt was an exceedingly enthusiastic handball player but in recent years he abandoned this for the less strenuous hobby of fishing. This hobby he pursued with the same enthusiasm that was typical of all of his activities. Only a few months ago he purchased a seaworthy craft in order to "get closer to the fish."

Burt was a member of the A.A.P.G., a registered Petroleum Engineer and a member of the U.C.L.A. Alumni Association.

Surviving him is his widow Eileen and sons, Burton A., 16, and Donald R., 12, of Bakersfield, his father, Burton H. of Los Angeles, and brother, Jack of South Pasadena.

We wish to express our deepest sympathy to his wife, children and relatives. Burt's life, though not a long one, was a good one in all respects.

Robert L. Rist

PRELIMINARY CONVENTION PROGRAM

Tom Baldwin, Monterey Oil Co., program chairman for the forthcoming fall meeting, reports that the program is shaping up nicely and should be interesting if present commitments are fulfilled. The papers on Thursday, November 11, will be devoted to Marine Exploration Problems and those on Friday, November 12, to Onshore Exploration. The program, tentative as to title and sequence of papers, is as follows.

Thursday, November 11, 1954

Dr. K. O. Emery, U.S.C., paper on Ecologic and Biologic Factors in Studies of Pacific Ocean Basins.

Dr. H. W. Menard, Scripps Institute, paper on Structural Interpretation of Sea Floor Topography of California Coast.

Dean Walling, Western Geophysical Co., Present Techniques in Marine Seismology.

W. W. Rand, Submarex, Recent Improvements in Submarine Coring.

(Author not given), One Boat Method of Marine Seismology.

Robert Dill, Geologic Diving Consultants, Diving Geology.

Representative of Robert Ray Co., Present Methods and Costs of Marine Gravimeters.

Don Hare, Monterey Oil Co., Drilling Islands and Platforms.

Frank Hortig, State Lands Commission, Status of Offshore State Lands.

Friday, November 12, 1954

Wildcat Roundtable, John Frick, Humble; Dick Hester, Signal; John Curran, Honolulu; Jim Saunders, Tidewater.

Dr. Robert Spivey, Shell, Developments in Nevada.

George Kuffel, Shell. Irvine Ranch Exploration.

Howard Stark, Richfield, Castaic Hills Field.

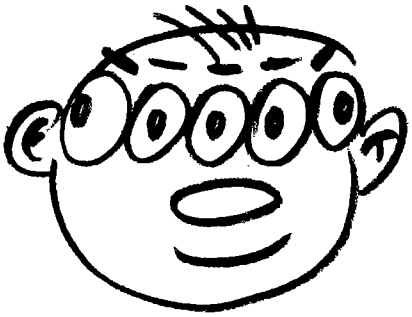
Sargent Reynolds, Consultant, Stratigraphy and Geology, West Side of Sacramento Valley.

Dave Sears, Shell, Geology of Central Panamint Range, Inyo County, California.

B. K. Johnson, Ohio, Southern Panamint Range.

W. O. Plant, Union, South Mountain Field.

Exploration Department Album



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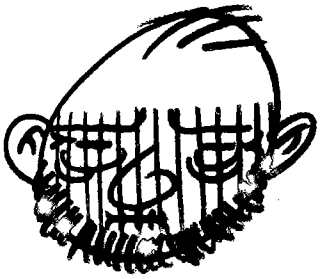
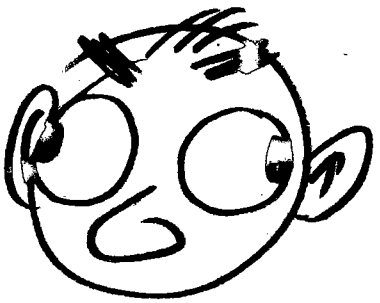


FIELD MAN



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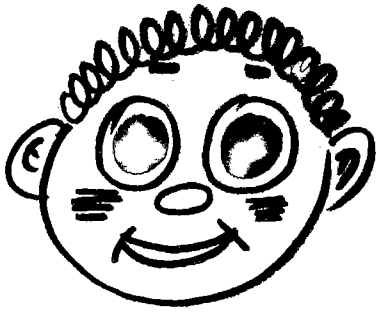
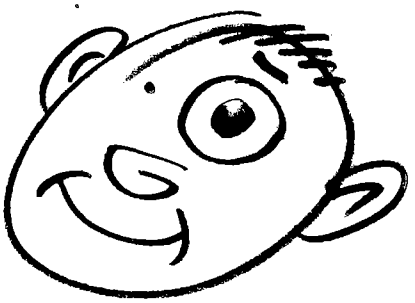


JR. GEOLOGIST

WELL SITTER

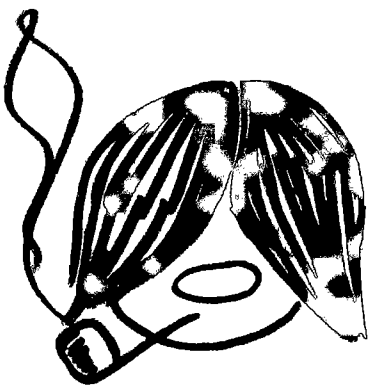


PETROGRAPHER

BUG MAN

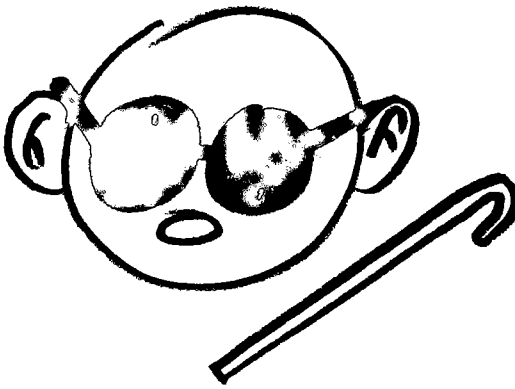
HIS PLAY WORKED

HIS DIDN'T



SEISMOLOGIST

SUBSURFACE EXPERT



CHIEF

Portraits by Sullwold

NOMINATIONS FOR 1955 A.A.P.G. OFFICERS

The Nominating Committee of the A.A.P.G. has selected the following candidates for Association officers for the year 1955.

President

Marshall Kay, Columbia University, N.Y.
G. M. Knebel, Standard of New Jersey, N.Y.

Vice President

Horace D. Thomas, University of Wyoming
Henry N. Toler, Consultant, Jackson, Miss.

Secretary-Treasurer

Frank Gouin, Oil Producer, Duncan, Oklahoma
W. A. Waldschmidt, Consultant, Midland, Texas

Editor

W. C. Krumbein, Northwestern University, Evanston, Illinois
Grover E. Murray, Louisiana State University, Baton Rouge, La.

Additional nominations should be submitted to A.A.P.G. headquarters in Tulsa by November 15, 1954 by written petition bearing signatures of 50 or more members. Ballots will be mailed around the first of the year and successful candidates will take office on March 31, 1955 at the close of the 40th annual meeting in New York.

PACIFIC SECTION SCOUT PROGRAM

This summer the Pacific Section of the A.A.P.G. sponsored a Geological Counselor at the Summer Camp of the Greater Los Angeles Boy Scouts Council, located in the vicinity of Lake Arrowhead.

Mr. Grant Robbins, a graduate student at Pomona College, spent ten weeks at the camp during June, July and August, assisting the staff in training the scouts in the fundamentals of geology to enable them to obtain merit badges in that subject, as well as to give them an appreciation of the geological phenomena met in their every day activities. The camp accommodated 450 scouts per week, making a total of 4500 scouts for the summer.

To defray the cost of this very worthwhile project, the following oil companies contributed generously.

Continental Oil Co.	Shell Oil Co.
General Petroleum Corp.	Standard Oil Co.
Hancock Oil Co.	Superior Oil Co.
Humble Oil & Refining Co.	Texas Co.
Monterey Oil Co.	Tidewater Associated
Ohio Oil Co.	Western Gulf Oil Co.

THE PASCHALL REPORT

Petroleum geologists are long overdue in standardizing a color scale for oil and sample cuts. Such vague abstractions as "dark amber" and "pale straw" miss the mark. Whose amber and whose straw are we talking about? The indefinite comparative must go. A tentative listing of color values is herein offered to the profession, on a basis which should be comprehensible from Calgary to Corpus Christi:

Straight gin: no discernible cut.

Very VERY dry martini (vVdm): occasioned by spotty staining of 40-plus gravity oil.

Martini: (or champagne cocktail, to avoid confusion with vVdm, above): good saturation with high-gravity or staining with medium-gravity oil.

Beer: (color reference here is to standardized, pasteurized name-brand lager) this and succeeding colors obviously refer to successively lower gravities and/or higher saturations.

Dubonnet cocktail: perhaps a little effete for the average geologist in the field. Manhattan is a permissible substitute.

Cuba libre: provincial tastes may dictate alternatives here. Rock-and-rye, perhaps, for the occasional Ivy League man, bock beer for the midwesterner.

Creme de cacao: we will hope you don't see this one too often, what with the current market for heavy crude.

Morning after: You've had it. This somber tone suggests tar production.

Special problems need special solutions, pousse cafe, for instance, for oil in the ditch.

Admittedly this list is incomplete, but Rome wasn't built in a day. If you have any corrections or additions to make, feel free to do so, but please don't bother me with them. I've suddenly developed a splitting headache.

PERSONAL ITEMS

Bill Emerson with Monterey, has recently opened an office in Sacramento. Bill was formerly with Wilshire and came up from Bakersfield.

Ted Harding has replaced Alan Jackson with Humble in Chico. Jackson is in Salt Lake City hunting uranium.

This being the season for fish stories, here is one which came to our attention the other day. It seems that Bill Holman, of Standard, recently throwing a fly around in the High Sierra's, was attempting to unhook the trout under water at the lake's edge (so that he didn't have to clean and eat it), when an irate friend of the hooked fish rushed up and bit Bill on the finger. This probably illustrates the extreme loyalty of one trout to another. However, we also can't help but be wondering what the Fish and Game Commission may be feeding these fellows in the hatcheries these days.

Union Oil Co. has turned the big wheel with the following results:

Jay Wagner, Geologist, Bakersfield to Sacramento
Bob Carlson, Geologist, Sacramento to Orcutt
Dick Peryam, Geologist, Orcutt to Santa Fe Spgs.
Howard Samsel, Geologist, Santa Fe Springs to Bakersfield.

Western Gulf has moved into their new offices at 826 Main Street, Ventura.

Bob "The Great Blue" Herron is spending his second vacation in Mammoth Lake on the end of a fishing pole.

Gene McDonald has been employed as an engineer on the Schlumberger staff in Ventura.

Jim Cowell, Shell Oil Company, Ventura, had very poor luck in Las Vegas, but burned up the Montalvo Golf Course with a 69 when he returned. It looks like vacations are good for the golf game anyway.

Edwardo Gonzales, with the Chilean Government, is spending two months in Richfield's Ojai office, becoming acquainted with U.S. oil exploration methods.

Vernon "Easy" Rutherford, of Union Oil Co. in Santa Paula, is now sojourning in Nevada.

Ralph. P. Cahill, Texas Company geologist, has been transferred from Taft to the Santa Paula office.

Don Didier, formerly a scout for Ohio Oil Co. in Bakersfield, has transferred affiliations and is presently a geologist for Tide Water Associated in the same locale.

Jim Wylie, geologist for Western Gulf Oil Co. in Bakersfield, announces his engagement to Margery Miller of Alhambra. The marriage is scheduled for early fall.

Bob Hoffman, geologist with Tide Water Assoc. in Bakersfield, has announced his engagement to Delores Morelli of San Francisco. Nuptials will take place on September 5, 1954.

Dave Costello, geologist for Tide Water Assoc. in Bakersfield, has been transferred to Nevada in anticipation of an early and heavy winter.

The Central California Oil Scouts Association barbecue and golf match was held at the Kern County Golf Course on the 13th of August, 1954. A most enjoyable and filling time was had by all. The steaks were plentiful and the best meat to be served in years.

John Ruth and Tom Newbill, Standard Oil Co., are on a pack trip in the High Sierras for a vacation. They have asked that arrangements be made to eat off the mantle at the next noon geological meeting.

Bob Patterson, Supervisor for Peters Formation Logging Service, has moved from Bakersfield to Los Angeles to assist in the management of the company. He will be replaced in Bakersfield by John Schroeter. Mr. Peters is taking a busman's holiday for the next three weeks and plans a tour of oil field activity in the Rocky Mountain area.

The boys in the Exploration Departments of various companies in Sacramento are very proud of their batting average with the stork. Their average now stands at 0.333 for expected arrivals around the first of the year. Out of 30 geologists, geophysicists, etc. in Sacramento, 10 are expecting and there are rumors that this average might increase. There has been some talk about "something in the water up there".

The Continental Oil Co. has announced the consolidation of their Bakersfield and Ventura Divisions as of September 1, 1954, coincident with the closing of their Ventura office.

Dan Sullivan will be Division Geologist for the expanded Bakersfield Division. Rodger Dungan, Ventura Division Geologist, is moving to Houston, Texas about September 10th to accept a position there. Phil Patten and Ed Johnson are opening a new geological office in Elko, Nevada with Phil in charge. Paul Siemon and Bill Osborn are moving to Bakersfield and Dick Miller will remain in Ventura as scout for the coastal area, reporting to Bakersfield.

J. Q. Anderson, the eligible bachelor of the San Joaquin Valley and parts East, has taken the big step. There was very little name changing in the nuptials conducted in Honolulu, T.H., on July 30, 1954. J.Q. met Kathrine Anderson during a business trip in Salt Lake City, Utah.

Everett W. Pease has joined Sunray Oil Corporation's California district as chief geologist in the exploration department. Everett served as district geologist with Sunray in California from 1949 until 1953 when he started a consulting practice in Bakersfield, California.

Bruce Martin, a recent graduate in micro paleontology from the University of Utah, is now affiliated with Shell Oil Company in Bakersfield.

Harry Nagle and Bob Sanem, Standard at Los Angeles, have both moved into their new homes at Leffingwell in the La Mirada tract. We can't help wondering what sort of bonus they paid and what their over-riding royalty is.

Jim Benzley, District Geologist for Western Gulf Oil Co. at Los Angeles, is on temporary loan to Gulf Oil Corp. while they drill a well on the Island of Barbados, in the British West Indies. Jim leaves for New York Sept. 1st and expects to be sipping "Gin & Schwepps" in Barbados within a week thereafter.

Mammoth Lakes seems to be the favorite vacation spot this year. Recently seen in the area were: Jim Bailey, Bill Gailey, Harold Rader and Bill Putnam. Dick Triplett is planning to go soon but is waiting for the traffic to subside a bit.

Bill Castle, Richfield Scout in Los Angeles, has finally had a change of luck. For the past several months the lady has frowned on him, bringing him bent fenders, empty gas tanks, burned valves, etc. But Friday he got a wee bit of a smile. He went down to pay a traffic fine and the Court could find no record of a ticket being issued to him. Maybe he had a complex and just dreamed about getting a ticket.

Tony Paap, Standard at San Francisco, and John Szatai, Standard at Los Angeles, were recently granted their citizenship papers. Tony is from Holland and John is from Hungary. Congratulations to them both. As of the 13th of September, John is taking a leave of absence to complete his studies toward a doctorate degree in geology at U.S.C.

R. G. (Scotty) Green and John Hazzard are reported to be fishing the lakes in the back country of Alaska. By some strange coincidence, Russ Simonson is also in Alaska, reportedly, on a similar mission. The report was not clear whether this was a simulated business trip or whether the fellows are paying their own expenses this time.

Fred Vandenburg, Kern Oil Co., is expected to return from Turkey sometime in September. He and Hamp Smith have been in the land of the dancing girls since May.

John Yeager, with Ohio in Sacramento, is taking a "busman's holiday" for his vacation this year. John is going gold hunting in the Sierras.

Richfield Oil Corp. announce the following promotions and assignments in their geological department:

Irv Schwade has been named Geologist in charge of the Pacific Coast Region.

Manley Natland is now geologist in charge of the Rocky Mountain and Canadian Region. Both Irv and Nat will be located in Los Angeles.

Ray Pearson is transferring from Los Angeles to Bakersfield as Northern Division Geologist.

Spence Fine is Southern Division Geologist and will remain at Ojai.

Stan Carlson will be Geologist in charge of the San Joaquin and Sacramento District in addition to his duties as Division Paleontologist.

Jim O'Flynn will be Geologist in charge of Cuyama and North Coastal District with offices in Bakersfield.

Joe Le Conte, Richfield geologist in charge of offshore exploration, has finally moved his family from Bakersfield to their new home in Rolling Hills. Joe has commuted between Long Beach and Bakersfield for more than a year now.

Phil Thomas, party chief with Humble's seismic crew in Red Bluff, has been transferred to Texas.

Otto Seal, formerly in Rio Vista with Amerada, has been transferred to Los Angeles.

Les Roth, Amerada, has been transferred from Rio Vista to Ventura.

The Sacramento representatives to the Bakersfield scout picnic, included Bob Orwig, General Petroleum, John Frick and Charlie Guion, Humble, and Swiss Holmes, Shell.

Frank Tolman, Richfield geologist, is sufficiently recovered from his prolonged illness to resume, on a part time basis, his duties as Research Geologist. His office will be in Los Angeles. This is indeed good news.

A recent report from Wandering Harry Stolz states that he is en route from London to Southampton. He is looking forward to a good rest on his homeward voyage after visiting Italy, Spain, France, Belgium, Holland, Germany, Sweden, Denmark, etc, etc. He is due home sometime next week.

Irv Frazier, Texas Company Scout and a staunch Republican, armed himself with a new camera and flew to Detroit to pick up a new Pontiac. From Detroit he planned to check in at Hyde Park to scout the Demo-quarters.

Bob Alabaster, Texas Company landman, has been transferred from Sacramento to Los Angeles.

Bruce Hill, recently graduated from Brigham Young University in geology, is now associated with Amerada Petroleum Corporation in Bakersfield.

The families of the oil people in Sacramento recently enjoyed an outing put on by the local petroleum wives. The activities included tennis, horseshoes, volley ball, swimming and good food and drink. The only mishap of the evening was the eagerness of one jerk to take a swim with his glasses on (no names mentioned). All activities in the pool ceased until, thanks to the wonderful service of Schlumberger, the glasses were found on the bottom of the pool. The whole affair was so well received that there is to be a repeat performance on September 11 by the petroleum wives.

NURSERY NEWS

To Jack and Sally Cook, Union Oil Company, Santa Paula, a 10 lb., 7 oz. boy, Mark Stuart, August 16, 1954.

To Roger and Stella Dungan, Continental Oil Company, a 7 lb. 4 oz. girl, Lynn Anne, August 8, 1954.

Ralph and Trudy Hawkins, Shell Oil Company, Ventura, announce the arrival of their second son, Thomas Wayne, on July 12, weighing 8 lbs., 12 oz. They are celebrating the occasion with a new Olds.

Homer Steiny, ex-president, is for the fourth time a grandfather, this time Douglas, born on Friday, August 13th. He has been nicknamed "Lucky".

Joan and Bill Schlax, with Superior in Willows, announce the arrival of Michael Garfield Schlax, on July 31st. Michael tipped the scales at 9 pounds 0 ounces.

John and Dianne Morrison, General Petroleum at Ventura, announce the arrival of their new son, Shane Cover, born August 11, weighing 7 lbs., 5 ozs.

Mr. & Mrs. Andy Bengston, Standard at Los Angeles, announce the arrival of a new son, Bruce Edward, born August 7, weighing 9 lbs., 8 ozs.

CALENDAR

September 9, 1954: Thurs., Noon, Joint AAPG-SEG Luncheon Meeting, Biltmore Hotel, Los Angeles. The speaker will be Dr. George W. Beadle, President-elect for the American Association for the Advancement of Science. Cards will be mailed. For late reservations contact Doug Traxler, MI 8311.

September 9, 1954: Thurs., 6:30 P.M., A.I.M.E. Jr. Petroleum Group Dinner Meeting at the Turf Club, Anaheim-Telegraph Road and Rosemead Blvd., one block north of the Santa Ana Freeway. The meeting will be a symposium on "Methods of Reserve Calculation." Mr. Nick van Wingen, Consulting Engineer will speak on the "Material Balance Method," Mr. Rufus Clark, Richfield Oil Corp., will speak on the "Decline Curve Method," and Mr. Jan Law, Consulting Engineer will speak on the "volumetric Method." A brochure with a complete outline of the three methods has been prepared by the speakers and will be distributed at the meeting.

September 16, 1954: Thurs., 7:00 P.M. sharp, Coastal Geological Society Dinner Meeting, Pierpont Inn, Ventura. "The Life and Beauty of Alaska," a color travelog by Eugene Wiancko, Union Oil Co., Santa Paula. Also Eugene Borax, Union Oil Co., Los Angeles, will show colored slides and discuss "Stratigraphy of Cook Inlet and the Alaskan Peninsula."

September 20, 1954: Mon., 7:00 P.M., A.A.P.G. Monthly Forum Meeting, Edison Auditorium, Edison Bldg., Los Angeles. The Geophoto Corp., Denver, Colorado, will present a 3-D color movie entitled "A Third Dimension for Oil." Also, Frank Parker, Signal Oil and Gas Company, will review the last Wyoming Field Conference.

September 21, 1954: Tues., 6:30 P.M., A.P.I., San Joaquin Section, Monthly Dinner Meeting, Taft Petroleum Club, Barbecue Dinner. Mr. Hubert Ferry, Assistant to Vice President, Union Oil Co., will speak on the subject "Administration of Oil Field Waste Disposal." A short sports film will follow.

September 21, 1954: Tues., 8:00 P.M., A.P.I. Los Angeles Basin Chapter Monthly Meeting, Shell Recreation Hall, Signal Hill. Mr. E. E. Pyle, Vice President and Director, Monterey Oil Co., will speak about the "Monterey Oil Company's Offshore Drilling Island." Mr. James T. Carriel, Southwest Exploration Company, will show motion pictures of the R. M. Pyle Boy's Camp.

September 25, 1954: Sat., Coast Geological Society Annual Dinner Dance, Biltmore Hotel, Santa Barbara. Six piece orchestra, free drinks, beer and skittles. Cards for reservations to be mailed soon.

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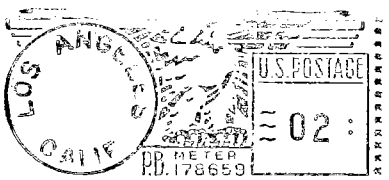

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Form 3547 requested

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 October 1954 No. 10

ASSOCIATION ACTIVITIES

A.A.P.G. & S.E.G. LUNCHEON

Dr. George W. Beadle, Chairman of the Department of Biology at California Institute of Technology, was guest speaker at a joint AAPG-SEG luncheon meeting, which was held at the Biltmore Hotel on September 9th. Dr. Beadle's topic was the "Origin and Nature of Viruses and Other Simple Living Systems".

Through the study of viruses, biologists and geneticists believe they have uncovered a clue which will aid them in the understanding of the complex problems involved in the reproduction and growth of living things.

A virus is a simple parasitic organism, simpler even than a single cell. Recent research has revealed that viruses consist of two main parts: (1) Protein and (2) Nucleic acid.

Dr. Beadle noted that there was disagreement among biologists as to whether viruses are living or non-living. This is largely a semantic question since the answer depends upon the definition of the word "living". He prefers to classify them as living, even though they may be dormant for long periods of time, because they are capable of reproduction and organic evolution.

Innumberable types of viruses live within our bodies and within other organisms, both plants and animals. Some cause diseases such as polio, smallpox, etc. Through subclinal infections many individuals build up immunity to some of the common virus diseases.

Research on viruses that live on bacteria has revealed that they propagate by the transmission of some material, either proteins or nucleic acid, into the bacteria. Recent use of radioactive trace elements indicates that the material transferred to the bacteria is the nucleic acid. The nucleic acid must therefore be responsible for the further reproduction of the virus.

From this experimental stage biologists have evolved a theory which may provide the explanation of the reproduction of all living things. This theory assumes that genes--units of inheritance in all organisms--are essentially nucleic acid. Nucleic acid has a double spiral structure with the two parts related in a complementary manner. In gene multiplication the two parts separate and each adds to itself a new complement. Thus, from one double structure two double structures arise, each of which is identical with its parent.

The specific information contained in a nucleic acid molecule is somehow translated into specific protein structure. Proteins, in turn, act as catalysts in controlling the chemical reactions that make up the many metabolic processes that go on in living systems.

CORRECTION

The Editor wishes to point out an inadvertent and embarrassing omission in the September issue in the account of the Pacific Section-sponsored Boy Scout Geological Counselor. The Union Oil Company and the Richfield Oil Company helped defray the expense of this project and were omitted from the list of contributors. Our deepest apologies are tendered herewith.

A.A.P.G. FORUM

Two speakers highlighted the Forum meeting held on Monday evening, September 20, in the Edison Auditorium.

Frank Parker, Signal Oil & Gas Company, opened the program with an account and color slides of the 1954 Wyoming Geological Association Field Conference which was held July 30 and 31 in the Casper, Wyoming area. Frank was in great form in describing the early history of the area and the route of the field trip and incidents along the way.

Mr. Laurence Brundall of Geophoto Service, Denver, concluded the meeting with Geophoto's new sound-color 3-D movie, "A Third Dimension for Oil."

The third dimension for oil is hyperstereoscopic vision. Stereoscopic vision is the examination of an object from two different vantage points. In applying the principle to air photography, the optical axis is vertical to the earth's surface. In this manner, by taking two air photographs with a common area, it is possible, with the aid of a stereoscope, to examine the left photograph with the left eye and the right photograph with the right eye and obtain a three-dimensional model of the earth's surface. Under normal conditions of air photography the visual topographic surface is exaggerated vertically approximately two or three times the horizontal scale.

The development of photo interpretation, employing three-dimensional stereoscopic models, followed on the heels of photogrammetric applications of air photography. During the 1930's the use of air photographs for geologic studies became widespread in foreign areas. The Shell Group deserves credit for pioneering work in the East Indies. The value of air photos in soils and forestry studies became increasingly apparent. In the United States air photos were slowly being accepted as a supplement to field studies for the recording of field-observed data. World War II provided a major impetus in the United States for the acceptance of photo interpretation studies in widespread fields. Large numbers of people became directly acquainted with photo interpretation procedures for military purposes. In addition, extensive research programs were undertaken for the purpose of expediting the solution of military problems in terrain, vegetation, soils, and related matters significant in military operations. As we view the past from our vantage point today, we can see that tremendous advances have been made in the direct application of air photography in natural resources studies in geology, hydrology, forestry, soils, and related engineering problems. The development of these photo studies to their present degree of efficiency has been made possible only by the principle of stereoscopic vision.

Photogeology is the successful application of this "third dimension for oil." The term "photogeology" covers a very broad field. It includes all geologic applications of air photographs, such as land form interpretation, petroleum exploration, hydrologic studies, mineral resources evaluation, teaching aids, and others. Photogeology encompasses not only the problems of interpretation but also the problems inherent in illustration and mapping. Geophoto's first movie, "Photogeology - A New Look for Oil," deals with methods of operation. The 3-D movie presents geologic interpretation of

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Next deadline October 22.

air photographs. For the first time it is possible to see in a movie what a photogeologist sees as he looks through the stereoscope. This movie showed many different examples of stratigraphic types and structural types. The diversity of areas yielding to photo analysis were shown by examples from many geologic provinces and different conditions of vegetation.

Photogeology is a tool and is not a separate science. In order for a person to excel as a photogeologist he must be a well trained geologist. An excellent background in structural analysis and an understanding of the relationship of different stratigraphic types is fundamental.

Photogeology is not a panacea. The amount of information that can be obtained varies, depending on the type of the area to be studied - but some significant information has been obtained in every area studied.

G.S.A. CONVENTION

The Geological Society of America's annual meeting will be held in Los Angeles this year on November 1, 2 and 3. Convention headquarters will be in both the Biltmore and Statler Hotels, according to Dr. William C. Putnam, Professor of Geology at U.C.L.A., Chairman in Charge of Arrangements.

Meetings will be held concurrently in the Biltmore and Statler Hotels, the General Petroleum Corporation Auditorium and the Sunkist Growers Bldg. There will be about 24 sessions and 245 papers on the program, many of which will be of interest to A.A.P.G. members, all of whom are cordially invited to attend.

The presidential address will be given on Monday evening by Ernst Cloos of Johns Hopkins University in the Pacific Ballroom of the Statler Hotel.

Besides the sessions, several pre- and post-convention trips will be held to Death Valley, the Santa Barbara-Ventura area, Catalina Island, the Peninsular Ranges, and to several points in the Los Angeles Basin.

NOMINATING COMMITTEE

At the November 6, 1953 business meeting of the Pacific Section, A.A.P.G., the following resolution was presented and adopted. "A Nominating Committee of five persons shall be appointed by the Executive Committee of the Pacific Section of the A.A.P.G. The Nominating Committee shall consist of a chairman and four other members to serve for one year, or until the time of the next succeeding annual election. At least two of the Nominating Committee shall be past officers of the Pacific Section. It shall be the duty of the Nominating Committee to select at least two candidates for each of the following four offices: (1) President, (2) Vice-President, (3) Secretary, and (4) Treasurer. Additional nominations may be made by written petition of 25 or more members of the Pacific Section in good standing and received by the Secretary not less than 15 days prior to the time of the next election." Nominations may also be made from the floor during the annual business meeting.

A nominating committee has been appointed consisting of Chairman Russ Simonson, Dewitt Taylor, Gordon Bell, Wally Matjasic and Pete Gardett. Cards listing the candidates will be mailed before October 15.

CHRISTMAS DANCE

The A.A.P.G.-S.E.G.-S.E.P.M. Holiday Dinner Dance will be held Saturday, December 4, at the Oakmont Country Club. Joe Hatheway, Dance Chairman says that further details will be published later and that notices will be mailed well in advance of the event.

PALEONTOLOGY SEMINAR SERIES

A group of San Joaquin Valley paleontologists have organized a monthly series of seminars in Bakersfield for the 1954-55 season. The group consists of:

Charles Cary, Union Oil Co., Chairman
Jack Bainton, Standard Oil Company
William Barlow, Standard Oil Company
Harold Billman, Union Oil Company
William Binkley, Superior Oil
Tennant Brooks, Franco-Western
Stanley Carlson, Richfield Oil
Murray Nadler, Franco-Western
Edwin Steinemeyer, Shell Oil

John Van Osdell of Bakersfield College is Coordinating Instructor and the series is being presented with the support of the Adult Education Department of the Bakersfield School system.

The series will be presented on the following dates at the Junior College Building in Bakersfield from 7:30 P.M. to 9:30 P.M.

October 11, 1954 - Interrelations of Foraminifera and Sedimentation. Dr. Orville Bandy, U.S.C.
November 8, 1954 - Stratigraphy's Role in the Search for Oil. Dr. R. M. Kleinpell, U.C.
December 13, 1954 - Incidence and Character of Nearshore Sand Deposits. Dr. D. L. Inman, Scripps.
January 10, 1955 - Oil Accumulation and Paleontology of the Brackish Water Environment. Dr. Hans Thalman, Stanford.
February 7, 1955 - Foraminifera and Present Day Depositional Environments. Dr. Fred Phleger, Scripps.
March 14, 1955 - World Wide Correlations by Use of Pelagic Foraminifera. Stewart Edgell, Stanford.
April 11, 1955 - Incidence and Character of Recent Sands in Basinal Deposits. Dr. Kenneth Emory, U.S.C.
May 2, 1955 - Depositional Environment and Cementation of Sediments. Dr. Charles M. Gilbert, U.C.

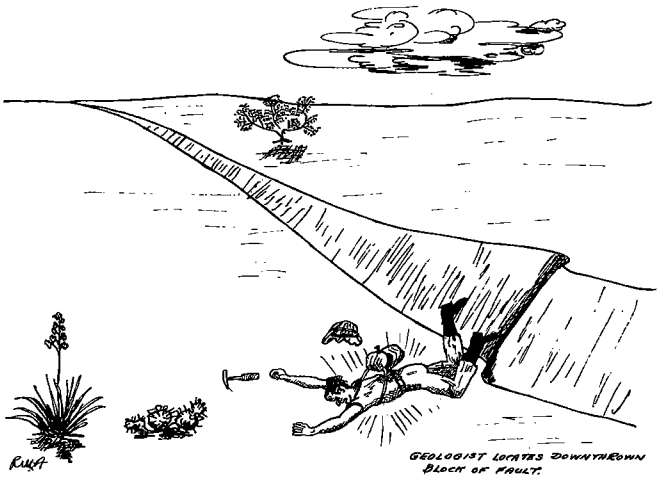
ADDITIONAL CONVENTION PROGRAM

Loyde Metzner, Signal Oil and Gas Co., Chairman of the forthcoming A.A.P.G.-S.E.G.-S.E.P.M. Convention on November 11 and 12 has announced that the principal speaker at the joint luncheon on Thursday, November 11, will be Edward A. Koester, President of the A.A.P.G., who will discuss Association affairs from a national point of view.

At the Thursday evening dinner of the S.E.P.M., Dr. Francis P. Shepard, Scripps Institute of Oceanography, will speak on "New Methods of Identifying Sedimentary Environment." At the Friday noon luncheon of the S.E.G., Leo R. Newfarmer, Exploration Manager for Shell Oil Company, will discuss "The Present Day Frontiers of Oil Exploration."

CONVENTION DINNER DANCE

Dance Chairman Russ Simonson announces that members and guests are cordially invited to attend the annual A.A.P.G.-S.E.G.-S.E.P.M. Dinner Dance in the Biltmore Ballroom on November 12. Arvon Dale and his orchestra will furnish the music and Russ hints that he is on the verge of signing a luscious female vocalist. There will be tables accommodating groups from 10 to 16 or more. Reservation cards will be mailed soon so plan your table group now and make your reservation early.



CAL NEWS

Twenty-two students in the University of California's Summer Field Course, under the direction of Dr. N. L. Taliaferro and assisted by Bert Slemmons, spent their time this summer mapping the San Andreas Quadrangle from their base camp located near Angels' Camp.

Dr. Adolph Pabst attended the International Congress of Crystallography in Paris from July 21 to July 28.

Dr. Turner has been traveling in England, France and Spain this summer.

For the past 6 weeks, Dr. Perry Byerly has been giving lectures at the University of Mexico in Mexico City.

Dr. Howell Williams, the former volcanologist, since oil has been discovered in volcanic rocks in Nevada, assisted by Phil Lydon, mapped the Bend and Sisters Quadrangles in Oregon this summer.

Dr. G. H. Curtis, accompanied by Jack Sheehan, completed a mapping project in the Valley of Ten Thousand Smokes in Katmai National Monument, Alaska.

Dr. Chas. Gilbert has just returned from sabbatical leave, which he spent traveling in France, Italy and England with his family.

U.S.C. NEWS

The U.S.C. Summer Field Course was held near Ely, Nevada, for six weeks this summer. Twenty-five students under the direction of Dr. J. F. Mann, Jr., mapped the Illapah Quadrangle #2. Dr. William H. Easton assisted for the first two weeks and spent the remainder of the summer doing field work in Arkansas and Oklahoma.

Dr. Orville L. Bandy worked the past summer on a special project for Western Gulf Oil Company. Dr. Bandy is on a leave of absence from the Department of Geology until September, 1955.

During the month of July, Dr. K. O. Emery was in the Hawaiian Islands and mapped an area of beach rock off the island of Oahu, Maui and Molokai. He also had the use of a U.S. Navy tanker and discovered 3 new submarine volcanoes south of Hawaii. On the 1st of September, Dr. Emery went to Monte Carlo to a meeting of the International Committe on Sea Floor Nomenclature and from there will go to Rome to a meeting of the International Society of Geophysics and Geodetics.

After conducting the Summer Field Course, Dr. John F. Mann, Jr., worked on desert research for the Air Force.

Dr. Thomas Clements, Head of the Geology Department, together with other members of the Geology staff, completed a research report on wind-borne sand for the Office of the Quartermaster General of the U.S. Army. The rest of the summer Dr. Clements spent in Panamint Valley doing research on the desert for the Air Force.

Dr. Richard Merriam worked on desert research for the Air Force during the summer on a separate project.

THE SUMMER AT U.C.L.A.

The biggest news on the Westwood campus is the presence of Philip B. King as Visiting Professor of Geology for the current academic year. He is on leave from the U.S.G.S. where he is Principal Geologist, most recently on a project in the Great Smokies. He is well known for his map of the U.S., "Tectonics of Middle North America," and many survey publications. He will teach seminars in Structural Geology and Geology of North America.

Jerry Winterer and Don Carlisle led 40-odd budding geologists through their pollenization rituals in Nevada this summer. The Mineral Hill Quadrangle has been completed and one-third of the adjacent Pine Valley Quadrangle was covered. Two cases of tick fever were the most serious mishaps.

Activities among the staff members were varied as usual. John Crowell returned from his sabbatical year in Europe just in time for his first class. He expressed great relief to be back in the land of opportunity.

Cord Durrell spent the summer in his old stomping grounds in Plumas County, giving talks to the local service clubs and doing a little geology in his spare time.

Ken Watson spent the summer exploring and evaluating all over Canada for Dome Exploration Co.

Clem Nelson continued field work in the Inyo Range with headquarters for his family in Bishop.

U. S. Grant IV moved into a lovely mansion directly across Sunset Blvd. from the campus so he won't be so far away from the coeds.

Bill Putnam took several trips in the Sierra Nevada between spells of hysteria arising from problems connected with the coming G.S.A. convention which he is master-minding.

Harold Sullwold spent a month in the field, a month at the beach and six years of sympathetic hysteria with Bill.

STANFORD NEWS

Summer field geology was conducted by Professor Robert Compton near Fort Ord in California and near Winnemucca in Nevada.

Professor Joseph J. Graham was with the Phillips Petroleum Company in Wyoming.

Professor Hans Thalmann was with Richmond Pet. Company in Ecuador.

Siemon Muller spent the summer at Stanford writing reports, with the exception of a few trips to Nevada.

Professor Ben M. Page was examining phosphate deposits in Idaho.

Professor Konrad B. Krauskopf was with Aero Service Corporation in Jordan.

Mel Swinney was with the U.S. Geological Survey in eastern Oregon.

George Thompson spent the summer at Stanford writing reports.

Joshua L. Soske did some geophysical work in Utah with several of his advanced students.

Fred Kelley conducted mapping in the Coalinga area and Adolph and Eleanor Knopf conducted their mapping in Montana.

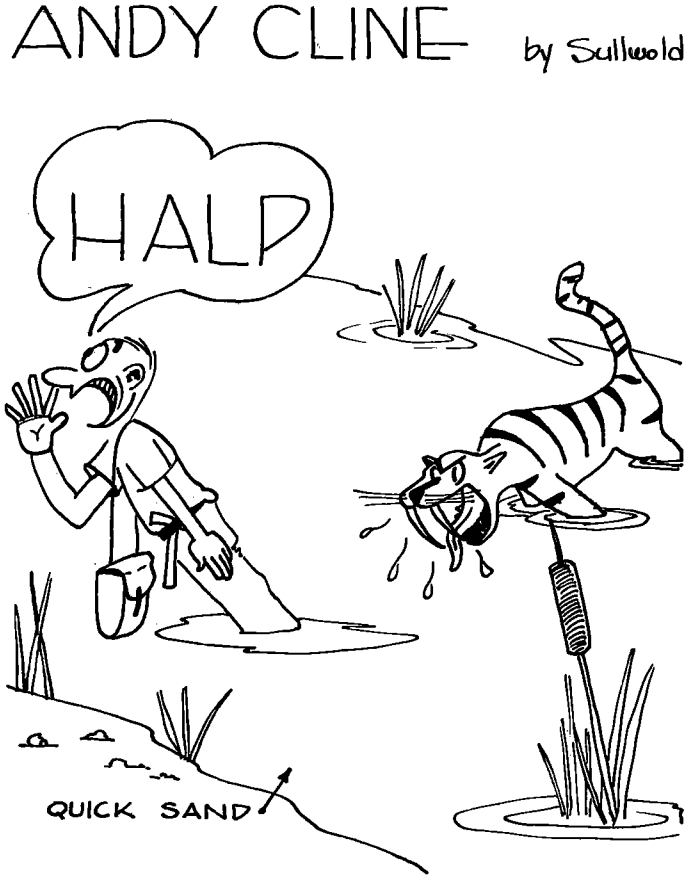
C. O. Hutton has just returned from a Guggenheim Fellowship problem in which he studied the beach sands in New Zealand and Australia.

Arthur Howard is back from a sabbatical year in Holland at which time he did some work in the Shell Laboratory and at the Institute of Photogrammetry in Delft.

Charles F. Park, Jr., spent the summer in Jalisco, Mexico, mapping an area.

Frank Miller was with Richfield in the Los Angeles area.

In addition to the faculty, several of the graduate students spent the summer working on various theses problems.



PERSONAL ITEMS

Bea Landry, popular secretary for Tide Water in Los Angeles, has renounced her California citizenship and is moving to New Orleans. She will be missed at the registration table and associate activities during convention this year.

For those who are wondering why Vern Rutherford's face was so red last week, the following unconfirmed report might prove interesting: Rumor has it that a week or so ago before leaving on a two or three day junket into the waste land, he neglected to inform the office that he would be gone overnight. When he did not report in, the Civil Air Patrol was notified and early next morning he was found blissfully curled up inside his sleeping bag beside the jeep.

Floyd Johnson, "outpost" geologist for Western Gulf, and Mrs. Johnson, returned August 16 from an eleven day trip to Alaska. Not sure whether to believe this or not, but Floyd reports not a drop of rain the entire trip.

Don Davis, consultant, wishes to announce his new address and phone number: 4712 Burnett Avenue, Sherman Oaks, Phone, State 4-4779.

John Loofbourow, former chief geologist of the California Division of Sunray Oil Corporation, has joined the Richfield staff as a research geologist.

Page Richardson, Tide Water Associated geologist from Casper, came back to the big city to spend his vacation. After many months in the Rockies, he came back to see the bright lights and enjoy the nice beach scenery.

Bill King, Texas Company geologist, has been transferred from Santa Paula to the Los Angeles office.

Homer Steiny has been gallivanting in New York again. Early one morning, he and several of his "Big Red" fraternity brothers enjoyed a field trip up Fifth Avenue making an inspection tour of ornate door knobs and miscellaneous hardware. Later in the day, while on a guided tour of the town, Homer remained in the bus at one stop while the rest of the group visited a huge granite and limestone edifice which was in the state of partial completion. When all fellow travelers were out of sight, Brother Homer asked the driver if Father Divine was the builder. As fate should happen, the building was the Episcopalian Cathedral of St. John the Divine, which upon completion will be the largest cathedral in the Western Hemisphere. Needless to say, Brother Homer joined the group immediately on its tour of the building.

The Anchorage Alaska paper says that Margaret Moore Hughes and G. Dallas (Doc) Hanna were married in Anchorage, September 8, 1954. The newlyweds, rumor has it, are enjoying the cool climate of Alaska and will return to the "States" some time in October.

Hubert Mee, Standard Oil Company scout, was transferred from San Francisco to Sacramento, September 1st.

Richard Neal, formerly with Sunray at Abilene, Texas, has been doing summer work for Honolulu in San Francisco. He returns to the Church Divinity School of the Pacific in Oakland this month where he is studying for the priesthood.

Dr. Hubert G. Schenck has returned to Stanford and will teach one course in Stratigraphy.

H. Wellman, geologist of the New Zealand Geological Survey, attended the Monday luncheon meeting of the Northern California Society in San Francisco on August 30. Mr. Wellman was sent by the New Zealand Survey to spend the next three months in studying California stratigraphy. He has spent several days at Division of Mines headquarters in San Francisco, and is now on a field trip in the Klamath Mt. area with a Division geologist. He has no fixed itinerary but would like to get into the field with a number of California geologists. Mr. Wellman has already been impressed by the remarkable similarity between our Franciscan and Cretaceous units and New Zealand formations. He can be contacted through Gordon Oakeshott of the California Division of Mines, Ferry Building, San Francisco, California.

Kit Carson has been observed careening madly about the streets of Ventura in a binocular Cadillac.

Don Preston, geologist for Shell in Ventura, has been transferred to Salt Lake City.

The Pierpont Inn was selected as the arena for a farewell party on September 2nd in honor of Roger Dungan who left California on September 9th for the land of the big thicket. He was presented with a beautiful desk pen, a flowery speech and good wishes by some 25-odd (hic) Ventura area friends. All who were present got home safely on September 3rd or 4th.

The following Shell men are getting some higher learning in Shell's "College of Oil Knowledge" in Houston: Joe Egan, Gene Reid, Bill Hannah, John "killer" Carter, Don Minar and Jim Swarbrick.

Bud Oakes, Union Geologist, has a new '54 Mercury with an 8 barrel carburetor, over-shot pipes and a self-acting magnetic pickup.

Jack Cook, formerly of Union in Santa Paula, has accepted a position with Douglas Aircraft in El Segundo in aircraft design.

Deer, ducks and fish have been seen going to higher ground and deeper water because Bill Thomas, mighty hunter and nimble nimrod of Shell Oil has returned to California from the Rockies.

Dick Gardner has recently been made the field superintendent in Bay City, Texas, with Brazos Oil and Gas. Dick was formerly in River Island, Calif.; taking over operations at River Island will be Ed Gaudet.

Don Gillespie and Bill King, with Shell in Sacramento, are in Houston completing the last phase of a company indoctrination school.

Paul Day, geologist for Western Gulf, has been working this summer out of their Olympia, Washington, office. He was formerly at Santa Maria.

Jack Evernden spent the summer in the Pacific Northwest for Standard. He has returned to the University of California where he will continue teaching.

Joe Graham, of Stanford, has returned from the wilds of the Rockies. He plans on leaving for the Philippine Islands in October, where he will spend a year teaching at the University of the Philippines at Quezon while on sabbatical leave from Stanford.

NURSERY NEWS

To John and Beverly Curran a 6 lb., 1 oz., baby girl, Lida Merts. This is number 3 on the list for the Currans.

To Bill and Ghena Lee a boy, James Jonathan, September 20th, 4 lbs., 10 oz. This completes the first string for a mixed basketball team.

Murle and Phyllis Vance, with Union in Sacramento, announce the arrival of a 7 lb., 10 oz., boy named Joel Thomas. Joel was born September 6th.

To Jim and Pauline Saunders, Tide Water at Los Angeles, a daughter, Kathleen Marie, 6 lbs., 8 oz., born September 14. Pauline is now in the isolation ward with the mumps, and Jim has a permanent assignment on the diaper detail.

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"Geology of Petroleum." A. I. Levorsen.

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TRADE JOURNALS & MISCELLANEOUS MAGAZINES

Oil & Gas Journal

"Shell May Bring in Arizona as Thirtieth Producing State." August 30, 1954. Vol. 53, No. 17.

"Interpreting Electric Logs in Shaly Sands." William E. White, September 13, 1954. Vol. 53, No. 19, pp. 106-110.

"Mobile Magnetometer Maps Anomalies." Norman S. Morrisey, September 13, 1954. Vol. 53, No. 19, p. 120.

"Geology for the Jean-Agers." Frank J. Gardner, September 20, 1954. Vol. 53, No. 20, p. 391.

Petroleum Engineer - August 1, 1954. Vol. 26, No. 8.

"Can Magnetics Find Strat Traps?" John D. Haseman. Pp. B55-61.

CALENDAR

October 7, 1954: Thurs., Noon, A.A.P.G. Luncheon Meeting, Rodger Young Auditorium, Los Angeles. A color travelog of "The Life and Beauty of Alaska" will be shown by Eugene Wiancko, Union Oil Company, Santa Paula.

October 11, 1954: Monday, 7:30 P.M., Bakersfield Junior College Building, "Interrelations of Foraminifera and Sedimentation," by Dr. Orville Bandy, U.S.C.

October 12, 1954: Tuesday, 7:30 P.M., Sacramento Geological Society Meeting, State Public Works Bldg., 1120 "N" Street, Sacramento. "The Corcoran Clay - A Pleistocene Lacustrine Deposit in the San Joaquin Valley" by J. W. Frank and Harry A. Kueys, and "Ground Water Conditions in the Mendota-Huron Area - San Joaquin Valley" by George H. Davis.

October 14, 1954: Thurs., Noon, S.E.G. Luncheon, Biltmore Hotel, Los Angeles. "An Automatic Seismic Oscillograph" by Paul C. Cook, Keystone Exploration Company.

October 14, 1954: Thurs., 6:30 P.M., Los Angeles Basin A.I.M.E. Jr. Petroleum Group Dinner Meeting, Turf Club, Anaheim-Telegraph Road and Rosemead Blvd. A symposium on recently developed drilling techniques.

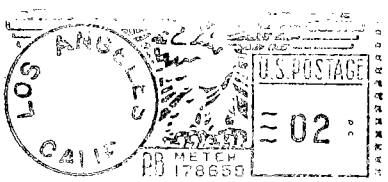
1. "Use of Diamond Drilling Technique" by Art Moore, Diamond Drilling Company.
2. "Modern Bit Usage" by L. L. Payne, Vice-President, Hughes Tool Company.
3. "Drilling Fluid Hydraulics" by Delmar Larsen, Consultant.

For reservations contact Dave Hayward, The Texas Company, Long Beach 4-1623.

October 18, 1954: Mon., 7:00 P.M., Los Angeles Geological Forum Meeting, General Petroleum Auditorium. Speaker to be announced later.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

Vol. 8 No. 10



Mr. F. R. Neumann
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Chico, Calif.

Form 3547 requested

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 8 November 1954 No. 10 #11

ASSOCIATION ACTIVITIES

A.A.P.G. FORUM

Two interesting papers were presented at the October 18th Forum Meeting at the General Petroleum Auditorium in Los Angeles.

Ted Bear, Consultant, opened the discussion with an informative talk entitled "Geological Notes on Uranium". The speaker confined his remarks to the uranium activity in the Colorado Plateau, an area where he has done some consulting work.

Approximately 95 percent of the total United States uranium production comes from the Colorado Plateau. At the present time, this area contains approximately 795 operating mines and 8 ore milling plants. Only 3 mines have uncovered reserves greater than 3-1/2 million dollars. The current Colorado boom is centered in the four corners region near Moab, Utah.

The principal uranium mineral of this area is carnotite, which occurs with other minerals of lesser importance in mineralized zones of the non-marine Morrison, Shinarump and Chinle formations. These mineralized zones are in old stream channels and are always associated with abundant carbonaceous material. Petrified logs in these stream channels are often very rich in uranium ore and may be worth as much as $2,000 apiece. The mineralized zone varies in color from yellow to green but is never red, which is one of the principal colors in the surrounding sediments. The uranium ore fills up the pore spaces between the sands and gravels of these stream channels and, in the case of carnotite, gives the appearance of ground-up sulphur.

The origin of this uranium ore is still highly conjectural but it is generally believed that it was carried in by hydrothermal solutions and then precipitated out in the present mineralized zones. These zones are located in faulted anticlines and in other structures commonly associated with the accumulation of oil.

Pete Gardett, Consultant, concluded the meeting with a discussion entitled "A Trip to the Oilfields of Northwest Peru". His talk was illustrated by color slides taken in Peru and enroute to that country.

The presence of oil in northwestern Peru has been known for a long time. The early Spanish explorers noted oil slicks along the coast and even reported that the nearness of the Peruvian coastline could be inferred from the petroleum odor, even though still out of sight of any land. These shows led to the early development of this area and one producing well has been in continuous operation since 1880.

Four oil fields have been discovered with a total production of approximately 450 million barrels. Oil is derived from the Tertiary section which has a maximum thickness of 25,000 feet. Sixty percent of the production comes from the Eocene Parinas formation.

In 1952, the Peruvian Government opened the country to exploration by foreign companies. Five million acres were soon leased and a total of 11 dry holes have been drilled to depths ranging from 1,200 to 8,000 feet. Union and Richfield have been the leaders in this exploration program. In 1953, the offshore area was opened to exploration and up to the present time the Douglas Oil Company has completed two small producers.

SAN JOAQUIN GEOLOGICAL SOCIETY MEETING

Dr. V. Standish Mallory, Department of Geology, University of Washington, was guest speaker at a joint SEPM-AAPG dinner meeting, which was held at the El Tejon Hotel, Bakersfield, September 29, 1954. Dr. Mallory's topic was "Eocene Stratigraphy of California."

Dr. Mallory presented formal names for the major divisions and subdivisions of a chronologic-biostratigraphic classification of the Eocene of California, and a summary of the criteria on which each of these is based.

Evaluation of the faunal changes found in a complete stratigraphic sequence of foraminiferal faunas in the California Province has shown that this sequence of faunas resolves itself into six distinct major units of Stage magnitude. These are differentiable throughout the California Province. Several units of Zonal magnitude, based upon the joint occurrences of species of foraminifera, subdivide the Stages.

CORRELATION OF EOCENE OF CALIFORNIA
BY A COMPARISON OF LAIMING AND
MALLORY'S PROPOSED STAGES

LAIMING ±	MALLORY	EPOCH
R	Refugian	Oligocene
A-1	Fresnoian	Upper
A-2	Narizian	Eocene
A-3		
B-1A (A-2)		
B-1	Ulatisian	Middle
B-3		Eocene
B-4	Un-named	Lower
C±	("Juniperian")	Eocene
D	Bulitian	Paleocene
E	Ynezian	

Standards used for the establishment of these subdivisions were on the basis of the outcrop. This is in comparison with, and in addition to, Laiming's subdivisions which are based for the most part on subsurface data.

Standard sequence followed to obtain a continuous biostratigraphic continuity is:

1. Outcrop data is always available for examination by various investigators and reinterpretation.

2. Outcrop selected was always under a demonstrable superposition.

3. Outcrop selected was continuous and uninterrupted.

PACIFIC PETROLEUM GEOLOGIST

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Calendar:	Ed Wellbaum
Cartoonists:	Harold Sullwold
	Bob Sanem
Coast Representative:	Rodger Dungan
Northwest Representative:	Rodger De Yoe
Sacramento Representative:	Don Barrett
San Francisco Representative:	Glenn Lansing
San Joaquin Representative:	Quentin Moore

Next deadline November 26.

4. Evaluation of numerous sections was made. Fauna with some significance were selected. Elimination of facies groups was desirable.

Control for establishment of the subdivisions was by use of previous key megafossils and microfossils with restricted range. Intervals between these key fossils was either filled by additional outcrop data or inference.

S.E.G. LUNCHEON

Mr. Dave Willis, Keystone Exploration Co., spoke on the "Automatic Seismic Oscillograph" at the regular monthly luncheon of the S.E.G. on October 14th at the Biltmore Hotel.

The automatic oscillograph is an instrument which automatically starts the recording paper in the recording instruments, fires the shot and then stops the recording.

A time delay in the opening of the shutter after the camera motor has started, allows the first part of the record to remain unexposed. After the record is run, the operator exposes that portion of the record to a film negative plate of a desired label form. The entire record is then developed with the label being printed directly on the record. In offshore shooting, additional items can be printed on that unexposed area, such as time of day, direction line was shot, and number of the record. This would effect a considerable saving of time in marine work, where as many as 250 records a day may be shot. It also prevents misnumbering of records, which is easy to do when so many records are being run. The automatic firing of the shot frees the recorder who can be outside while the shot is being fired, which in certain field situations is advantageous. A considerable saving in recording paper can be made by the automatic cut-off of the camera motor. It should be made clear that both the camera shutter time delay and the total time allotted for camera motor operation is arbitrarily determined and pre-set. The operator, however, can manually control the cut-off time of the camera, by means of a switch, if he sees that energy is still being received as the pre-set cut-off time is approached. In this way, any deep reflections that might unexpectedly be coming in will not be lost.

Installation of this automatic oscillograph costs around $1,000.00. It appears to be an efficient, straightforward system which, after some four years of field operations, has made a record of dependable service.

CONVENTION EXHIBITORS

Keen interest has been displayed by the exhibitors at the Fall Convention, according to R. S. Ballantyne, General Exploration Co., Chairman of the Exhibits Committee. Sixteen companies have taken space.

Last year's exhibitors who are returning include:

American Paulin System
Braun Corporation
George E. Failing Company
Fairchild Aerial Surveys, Inc.
Formation Logging Service Co.
HOMCO of California
Munger Oil Information Service
Rapid Blue Print Co.
Schlumberger Well Surveying Corp.
Techno Instrument Company
United Geophysical Co., Inc.
Vector Manufacturing Company

Among the new exhibitors we welcome are:

Johnston Testers, Inc.
Lane-Wells Company
McCullough Tool Company
Oil Base, Inc.

Schlumberger will continue to operate the coffee and "sinker" bar. Current geological publications will be on display and may be purchased at the booths of the Division of Mines and the A.A.P.G. Your copy of Munger's daily Oilogram may be obtained at the Auxiliary Lounge which is again being sponsored by Formation Logging, HOMCO and Munger.

The firms have planned interesting and stimulating exhibits. The financial assistance afforded by these companies in large measure makes it possible to have conventions of the magnitude and quality we now expect. Therefore, we urge everyone to reciprocate and give as much of his time as possible to our exhibitors.

COLLEGE LUNCHEONS

Complete arrangements have been made for luncheons to be held on November 12 during the Fall Convention by alumni of seven schools. The school, chairman in charge, and the place are as follows:

Biltmore Hotel

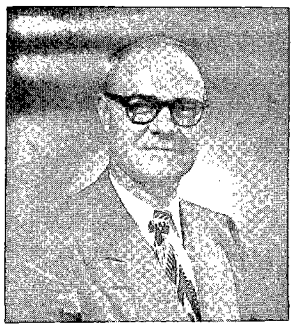
California:	Harvey Lee, Union, Conference Room #2.
Caltech:	Lloyd Pray, Caltech, Conference Rm. #5.
Stanford:	Homer Steiny, Consultant, Conference Room #1.
U.C.L.A:	Ted Bear, Consultant, Galeria Room.
U.S.C:	John Mann, U.S.C., Conference Room #4.

Clark Hotel

Pomona:	Howard Stark, Richfield.
Washington:	Robert White, State Exploration.

Oregon State alumni are in the process of organizing their luncheon, and interested grads should contact Bob Price, Shell Oil Company at Long Beach.

B I O G R A P H Y



Eugene Harold Rader, President of the Pacific Section of the A.A.P.G., better known to all as "Hal", was born in Kent, Washington on December 6, 1911. Grandfather Rader was of Scotch-American descent while both grandmothers immigrated from Ireland. Hal literally grew to manhood with a bottle in his mouth for his father was in the soft drink business in Kent for over 35 years.

After graduating from Kent High School, Hal entered Washington State College, where he started as a mechanical engineer but after five years he graduated with a B.S. degree in mining. During his college years he played in the Cougar Band and is a member of Sigma Gamma Epsilon.

Emerging from campus life of 1934 into the depression, Hal manfully beat his knuckles bare attempting to get in his chosen profession. He finally landed a job driving a truck in the field at Kettleman Hills for Standard Oil Company. After three years behind the wheel he transferred to Los Angeles, remaining with motor transportation. In 1942 he transferred into geology and did field work under W.S.W. Kew for over a year and then became the Los Angeles Scout for Standard. This was during the era of California scouting greats, including such scouts as "Crowbar" Cliff Johnson, "Ike" Holston and Harvey Lee. Few holes remained "no-dope" to Hal and these other stalwarts.

In 1951, after "living off the fat of the land" for eight years, Hal became District Development Geologist of the southern district for Standard, covering Los Angeles, Ventura and Santa Maria areas.

Hal has been a member of the A.A.P.G. since 1944 and during this time he has contributed generously of his time and energy. He has held such offices as Secretary-Treasurer, District Representative, Picnic Chairman, Nomenclature and Classification Committeeman and served on the Exploratory Drilling Committee since 1944.

He married Phillis Thorn of Pullman, Washington in 1935 after a college romance at Washington State. They have a daughter, Beverley, eighteen and a son, Norman, fifteen, who wants to become a geologist.

Besides drilling oil wells for Standard, Hal plays bridge, likes to garden, dabbles in color photography, and has a shiny new shopsmith which he hopes to use in his spare time. The Raders reside in Rideout Heights area of Whittier, where Hal can cast a scouting eye over the Los Angeles Basin oil fields.

A.A.P.G. LUNCHEON

Eugene Wiancko, geophysicist and geologist for Union Oil Company was guest speaker at Roger Young Auditorium on October 7th. He presented an illustrated lecture on "The Life and Beauty of Alaska." Wiancko was in Alaska from 1948 to 1950 as an exploration director and interpreter for the northern areas of Naval Petroleum Reserve Number Four.

The scenic grandeur and changing seasons of Alaska were illustrated with 150 color slides which emphasized the unique beauty of that land, from the Inland Passage to the Alaskan Arctic.

The speaker's presentation was unusual in that the narration was a carefully edited tape recording with an appropriate musical background. His artistic and informative coverage of Alaska was enthusiastically received by a large luncheon group.

PROPOSED AMENDMENTS

The Executive Committee of the Pacific Section, A.A.P.G., is proposing two amendments to the Pacific Section Constitution.

It is proposed that Article V, Section 2 be amended to read as follows:

"The funds of this Section shall be deposited to the credit of the Pacific Section of the American Association of Petroleum Geologists in any federally insured depository selected by the Treasurer but not to exceed the limit insured by the Federal Deposit Insurance Corporation. Whenever necessary, the President shall certify to the authority of the Treasurer in administering such account by providing the depository bank with a notice of the Treasurer's election and with a true copy of this Constitution.

"The Treasurer shall have authority to issue checks against the bank account so established, on his sole signature, but in the event of his absence or incapacity to act due either to sickness or death, withdrawals or payments by check may be made on the signature of the President during the continuance of the absence or incapacity of the Treasurer, in which event the identity and authority of the President and the circumstances relating to the absence or incapacity of the Treasurer shall be certified to by the Executive Committee if so required by the depository".

Article VII, Section 1 shall be amended to read as follows:

"The President of the Pacific Section of the American Association of Petroleum Geologists, with the approval of the Executive Committee, shall appoint a Nominating Committee not later than August 1 each year, consisting of five (5) members, two (2) of whom shall be past officers of the Pacific Section. The Nominating Committee shall select at least two (2) candidates for each of the following four offices: (1) President, (2) Vice-President, (3) Secretary, and (4) Treasurer. The slate of candidates shall be announced in the September issue of the Pacific Petroleum Geologist. Additional nominations may be made by written petition of 25 or more members of the Pacific Section in good standing and received by the Secretary on or before October 1. Voting shall be by mailed ballot and all ballots must be returned to the Secretary of the Pacific Section not later than October 15 of each year".

These amendments will be on the ballot at the Convention in November. The Constitution may be amended by a two-thirds vote of all members present and voting at an annual meeting. The latest revised version of the Constitution was printed in the April 1954 issue of the Newsletter.

HOLIDAY DANCE

The Annual A.A.P.G., S.E.G., S.E.P.M. Holiday Dance will be held Saturday evening, December 4, 1954, at the Oakmont Country Club in Glendale. Bruce Hudson's orchestra will furnish music. Cocktails will be served from 7-8 P.M., dinner from 8-9 P.M. and dancing from 9 P.M.- 1 A.M. Present plans are to limit the function to 300 persons. Joe Hatheway, Chairman, and his assistants, Kenny Fuller and Louis Simon, urge that you start getting your group together as notices and reservation cards will be sent out in about two weeks. Groups up to about 12 persons can be accommodated. The cocktail party is being sponsored by Baroid, Halliburton Oil Well Cementing Co., Homco of California, Lane Wells Company, Johnson Testers, Inc., United Geophysical Company, Geophysical Service, Inc., Robert H. Ray Company, and Western Geophysical Company.

COAST GEOLOGICAL SOCIETY MEETING

The regular dinner meeting of the Coast Geological Society was held at the Pierpont Inn, Ventura, on Thursday, September 16.

Gene Wiancko, Geophysicist and Geologist for Union presented a color travelog, "The Life and Beauty of Alaska." Wiancko photographed many unusual aspects of Alaska during two years there as an Exploration Director for Arctic Contractors. The slides were accompanied by a tape recording of background music with a vivid narration. The pictures began with San Francisco, and presented views of the inland passage, Alkan Highway, and air views of the northern area of Alaska. The changes in scenery from summer to winter, the spring thaw, the life of the Eskimo and fisherman were professionally displayed and described by Wiancko.

Judging by the way "The Life and Beauty of Alaska" were received by those present, other groups should see this very interesting presentation.

Gene Borax of Union was the second speaker of the evening, and he presented slides and comments on the stratigraphy of Cook Inlet and the Alaskan Peninsula. Borax ullustrated the similarity of the formations in the area, and described the problems of the geologist along the foggy coastline.

NORTHWEST GEOLOGICAL SOCIETY OFFICERS

The Northwest Geological Society met September 27th in Olympia, Washington for the purpose of electing new officers. Dr. Harry Wheeler of the University of Washington was elected president; Prof. Norm Anderson of The College of Puget Sound, secretary; and Bob Hess of Humble Oil at Eugene, Oregon, treasurer.

A vote of thanks for a well done job was extended outgoing President Grant Valentine, Secretary Marshal Huntting, and Treasurer Ivor McCray.

PERSONAL ITEMS

Mr. Glenn Lansing, Tidewater Associated at San Francisco, entered Franklin Hospital at San Francisco on October 17 for surgery to correct a slipped disc in his back. We wish him a speedy recovery and hope that he will be back on duty real soon.

Mort Turner, assistant mining geologist for the State Division of Mines, is leaving to become chief geologist of a newly formed geological department for the government in Puerto Rico.

Chuck Kirshner and Jim Heppert of Standard have returned to San Francisco after spending the summer in Alaska.

Bill MacKersie, Seaboard Oil Company, sends his regards to the P.P.G'rs from Denver. He reports that he has moved from his fifteen-room summer mansion into a modest cottage in Denver's west side. His housewarming party evidently was quite successful, since he thought the details were too hot to be printed for public consumption.

Mr. John Forman, General Petroleum Corporation Geologist, has been transferred from the Ventura office to Los Angeles. He is, at present, busily "bird-dogging" the various and sundry new subdivided tracts, looking for a house.

Our apologies to Mr. Vern Rutherford and his Los Angeles friends; in the hilarity over hearing of Vern's escapade with the Civil Air Patrol, we neglected to say that he had been transferred to Union Oil Company's office at Ely, Nevada.

Jim Wylie, Western Gulf Oil Co., Bakersfield, will take the vows with Margery Ellen Miller of Alhambra in Los Angeles on November 20, 1954.

Carl Nelson, Schlumberger engineer, has been transferred from Taft to Ventura.

Don Rogers, Geologist for Humble, has been transferred to Los Angeles from New Orleans.

John Cagle, Geologist for Continental, was transferred from San Miguelito to Bakersfield.

Mr. Flint Agee, United Geophysical Company, is still nursing a sore leg which he sprained while trying to kick himself around the block. It seems that on Sunday afternoon, a week or so ago, his family tried to inveigle him to go to the local theater to see the picture "Caine Mutiny", all to no avail. He weasled out and the whole family stayed at home. Early Monday morning the theater manager called to tell him that if he had been at the theater on Sunday evening he would have won a $5000 jack pot. His name had been called but he was nowhere to be found.

Mr. Paul F. Patchick writes from Korea to give his regards to his geological friends on the Pacific Coast and to announce his new change of address: Paul F. Patchick, U.N. Korean Reconstruction Agency, Taejon Mineral Laboratory, APO 94, c/o Postmaster, San Francisco. Paul is on special assignment to the U.N. from the army. His work consists of research in applied mineralogy, instruction of Koreans in advanced laboratory techniques, and the conducting of lecture courses in determinative mineralogy for the Technical Assistants and the supervision of field excursions. Paul says he eagerly anticipates the arrival of the Newsletter each month, even though it arrives a full month late.

Tennant J. Brooks has opened consulting offices at 1716 Oak Street, Bakersfield. Tennant was formerly District Geologist for Franco Western Oil Company.

Dick Palmer, Geologist for The Texas Company in Bakersfield, has returned to the grind after a lengthy bout with San Joaquin fever.

Jim Brown, Geologist for General Petroleum Corp. in Paso Robles, has almost left the ranks of the eligible. He is engaged to a little gal in Paso Robles, but no name is given out. Date is tentatively set for a late income tax refund.

The stance of a partially broken down geologist paid off for Rod Colvin to the tune of two large denomination, valid, U.S. currency bills as a trek was made for a much earned cup of coffee in an outlying area.

Bill Roberts, an August graduate of University of Southern California, has been employed as a Paleontologist for Union Oil Company in Bakersfield.

Carol Daly, Paleontologist, severed relations with Shell Oil Company, and it is rumored that she and Jay Wagner of Union Oil Company will be married in the near future.

Chuck Cary has recently been promoted to Division Paleontologist for Union Oil Company in Bakersfield.

Alan Hershey, Paleontologist, is temporarily in Houston for the Shell training program.

Daniel J. Pickrell has resigned his partnership in Golden Gate Petroleum Company to open new offices under the name of PEXCO (Pickrell Exploration Company), effective October 1. PEXCO's address is 38 Sansome Street, San Francisco. Phone, Exbrook 2-2270. He will operate as a consulting geologist and will handle leasing and development of oil properties.

Bill Yerington, Geologist for The Ohio Oil Company, married Leticia McKeown in Bakersfield on October 30, 1954.

Presley DeJarnett, recent graduate of the University of Arkansas, is employed as a geologist for The Ohio Oil Company, Bakersfield.

Dave Costello, Tidewater Associated Oil Co., has announced his engagement to Margaret Ann Krause of Bakersfield. Nuptials are set for November 21, 1954.

The Union Oil Company announced the following appointments and promotions, effective September 1, 1954: Mr. John Sloat, formerly Manager of Exploration, was appointed to the company's Administrative Staff under Mr. R. G. Green, and will act as Coordinator of the company's Geophysical activities. Mr. Charles F. Manlove was appointed to the Administrative Staff under Mr. Green, as Coordinator of the company's Geological Departments in the Western Area. Mr. Edward W. Scott was appointed to a similar position coordinating the Geological Departments of the West Texas and Gulf Coast Areas. The headquarters for all three will remain in the Los Angeles office. Mr. Fred W. Bush, formerly Manager of Exploration of the Williston Basin, has been appointed Manager of Lands for the Pacific Coast Division. Mr. John E. Kilkenny has been appointed Chief Geologist for the Pacific Coast Division. The company has discontinued the office of Manager of Exploration, and has consolidated the Williston Basin Division with the Rocky Mountain Division, with headquarters at Denver under Mr. W. E. Morgan, Manager of Operations.

NURSERY NEWS

To Charles and Audrey Jennings, California Division of Mines at San Francisco, a baby girl, Marcia, weighing in at 6 lbs., 13 oz.

Marge Cronin, presently on leave of absence from General Petroleum at Vernon, announced the arrival of her new daughter, Laura Ellen, born September 8, weighing an even 3 lbs. Marge and the baby are reported to be doing fine, but the father has not been heard from yet. For the first six weeks, Marge says "there's nothing to it", since the baby was in the hospital and the nurse was bearing the brunt of the storm. The baby came home last week and now Marge is running around with her little red headed bundle of lungs on a pillow wondering "what do I do next" and "how long is it going to be before she can take her own shower"?

CALENDAR

November 1, 2 and 3, 1954: Mon., Tues., and Wed., Geological Society of America, 67th Annual Convention, Biltmore and Statler Hotels, Los Angeles.

November 5, 1954: Friday evening, Coast Geological Society Dinner, Pierpont Inn, Ventura. Cocktails at 6:30 P.M., dinner at 7:30 P.M. Speaker: Dr. John L. Rich, Distinguished Lecturer, "Criteria of Depositional Environment of Sedimentary Rocks and Their Use in Paleogeography".

November 8, 1954: Monday, 7:30 P.M., Bakersfield Junior College, Paleontology Seminar. Dr. R. M. Kleinpell, "Stratigraphy's Role in the Search for Oil".

November 9, 1954: Tues., 6:30 P.M., A.A.P.G. Dinner Meeting, Spanish Ballroom, El Tejon Hotel, Bakersfield. Speaker and topic to be announced.

November 11 and 12, 1954: Thurs. and Fri., Pacific Section A.A.P.G., S.E.G., S.E.P.M. Joint Annual Meeting, Biltmore Hotel, Los Angeles.

November 12, 1954: Fri., 8:30 P.M., Pacific Section A.A.P.G., S.E.G., S.E.P.M. Dinner Dance in the Ballroom, Biltmore Hotel, Los Angeles.

November 16, 1954: Tues., 6:30 P.M. A.P.I. San Joaquin Chapter, Dinner Meeting, Steak Barbecue, Petroleum Club, Taft. Speaker and topic to be announced.

November 16, 1954: Tues., 8:00 P.M. L.A. Basin Chapter A.P.I. Shell Recreation Hall, Signal Hill. Mr. T. Murray Robinson, Senior Partner, Robinson, Shipp, Robertson and Barnes, Oklahoma City, will speak about the "Legal Aspects of Conservation". Also "When Rooster Tails Fly", a movie about the 1952 Gold Cup Races at Puget Sound, will be shown.

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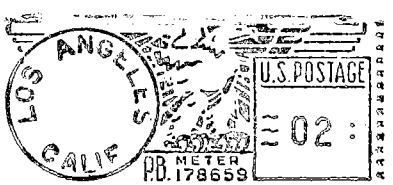
"Skin Diving Oil Sleuths Search the Ocean Floor". Page 95.

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
9645 S. SANTA FE SPRINGS RD
WHITTIER, CALIF.

Vol. 8 No. 10



Mr. F. R. Neumann
381 E. 4th St.
Chico, Calif.

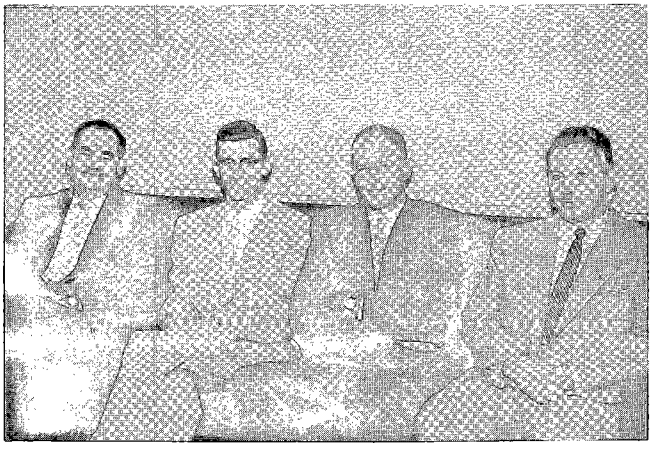
Form 3547 requested

PACIFIC PETROLEUM GEOLOGIST

NEWS LETTER OF THE PACIFIC SECTION
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

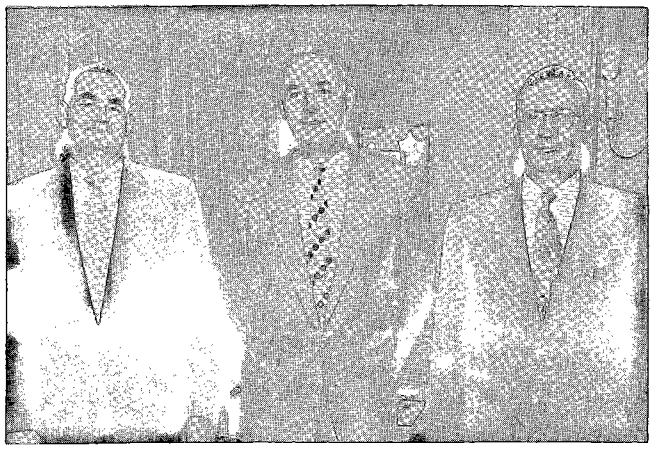
Vol. 8 December 1954 No. 12

ASSOCIATION ACTIVITIES



A.A.P.G. OFFICERS

New officers elected by the Pacific Section, A.A.P.G., for 1955 are left to right: Frank S. Parker, Signal Oil and Gas Co., President, Ben C. Lupton, General Petroleum Corp., Vice-President, Robt. B. Kelly, Continental Oil Co., Secretary, Louis J. Simon, The Texas Co.. Treasurer.



PRESIDENTIAL TRIO

Presenting a united front are the smiling new presidents of the three societies for 1955. From left to right they are: Frank S. Parker, Signal Oil and Gas Co., A.A.P.G., President, J.W. Mathews, Richfield Oil Corp., S.E.G., President, Harold G. Billman, Union Oil Co., S.E.P.M., President.

J. W. Mathews will be assisted by the following S.E.G. officers: Richard W. Shoemaker, Ohio, Northern Vice-President, Ellsworth M. Curry, Shell, Southern Vice-President, L. I. Brockway, Western Gulf, Secretary-Treasurer.

Harold G. Billman will be assisted in running the S.E.P.M., by Edwin H. Stinemeyer, Shell, Secretary-Treasurer.

HAVE YOU MADE YOUR NEW YORK CONVENTION RESERVATION?

COAST GEOLOGICAL SOCIETY MEETING

Dr. John L. Rich, A.A.P.G. Distinguished Lecturer, was the principal speaker at the regular dinner meeting of the Coast Geological Society at the Pierpont Inn, Ventura, November 5th. Dr. Rich's subject, "Three Critical Environments of Deposition and Their Paleogeographic Implications", attracted a large enthusiastic audience.

In a body of standing water subject to wave action, three distinct environments can be recognized, in each of which the physical conditions are entirely different, the sedimentary deposits are distinctive, and the ecological conditions affecting life lead to the preservation of distinctive facies faunas.

These environments are: (a) the zone above wave base, where agitation from waves is frequent, (b) the sloping foreset zone extending down from wave base to (c) the third zone, which is the generally flat floor of the water body concerned. These are named the unda, clino, and fondo environments, and correspond in a general way with the subaqueous topset, the foreset, and the bottomset zones of a delta. But, since water heavy with suspended sediment will flow down even a very gentle slope, the inclination of the bottom surface in the clino zone may be much smaller than that which is generally associated with the foresets of a delta.

Stirring by the waves during storms puts the finer material in the unda zone above wave base into suspension. Undertow and other currents carry it out to deeper water, where the heavier, muddy water flows down the slope of the clino zone as a density current which scours the surface of the muds on that slope and produces characteristic flutings and groovings which are preserved as casts on the under sides of the siltstone beds formed where the coarser elements of the muddy water settle as the storm subsides, while the finer constituents travel farther and spread widely over the bottom in the fondo zone.

Thus, distinctive features of constitution and bedding characterize sediments deposited in each of these three enviornments and make it possible for the geologist to recognize what was the environment of deposition by studying the various diagnostic features of the sedimentary rocks.

Flow flutings formed in the clino environment make it possible to determine the direction from which a sedimentary basin was filled.

Use of the distinctive criteria for recognizing these three environments should serve as an extremely useful key for unlocking the secrets of paleogeographic history.

DISTRICT REPRESENTATIVES

Six candidates were nominated for the office of District Representative. Three will be elected to fill vacancies in the Los Angeles District of the expiring terms of Harold Rader, B. C. Lupton, and Phillip Cook. As District Representatives are national A.A.P.G. officers, the election will be by mail and ballots will be sent out from Tulsa Headquarters about January 1, 1955.

The candidates are Marie Clark, Dana Detrick, John Kilkenny, Glen Ledingham, George Wheatley, and Everett Pease.

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	Bob Sanem
Coast Representative	Bob Hacker
Northwest Representative	
Sacramento Representative	Don Barrett
San Francisco Representative	Glenn Lansing
San Joaquin Representative	Joe Parmenter

NEXT DEADLINE DECEMBER 31

SAN JOAQUIN GEOLOGICAL SOCIETY MEETING

Dr. George Stanley, Geology Professor at Fresno State College, was guest speaker at the monthly A.A.P.G. dinner meeting which was held at the El Tejon Hotel, Bakersfield, November 9, 1954. Dr. Stanley's topic was "Origin of Stone Tracks on Race Track Playa, Death Valley National Monument".

Dr. Stanley presented a very complete set of slides which had been taken on the Race Track Playa over a period of years during which time he and several students had carried on a complete investigation of these tracks.

The Racetrack Playa is located in the northwest portion of Death Valley National Monument. The playa is 3 miles in length and 1-1/2 miles maximum width. Mountains surround the playa on three sides rising 3000' above the playa floor which has an elevation of 3708' above sea level. Stone tracks have been observed from stones of 2 feet diameter down to pea size. These stones are traceable across alluvial fans surrounding the playa to outcrops at the south end of the playa. These outcrops are black dolomite with the largest pieces of dolomite in the immediate vicinity of the steep outcrop.

Tracks were made by various objects other than stones and were made over mud cracks. In some cases tracks were in evidence without the object which made it being present, the object either being blown or carried away after the track was made.

Stones making the tracks were in most cases angular to poorly rounded. Few of the tracks were made by objects which would offer a very good surface for wind movement. Tracks were generally parallel to the long axis of the playa but acute turns in the tracks are common.

Precipitation is meager, temperature variation great, and wind velocities quite variable. It was therefore, proposed that ice sheets were formed around the various objects which were resting on a slightly moist to wet mud flat. The ice was probably broken and high winds caused the ice to be forced across the Race Track Playa while the encased or partially rafted rocks and other objects gouged a track in the playa floor.

FALL BRANNER CLUB DINNER-MEETING

See Calendar for particulars. For late reservations telephone RIchmond 2311,Ext. 387.

NEVADA GEOLOGICAL SOCIETY MEETING

Dr. L. L. Nettleton, President and partner of the Gravity Meter Exploration Company, was speaker at the dinner meeting of the Eastern Nevada Geological Society at the Ranch Inn, Elko, Nevada, on Tuesday, November 9, 1954. Dr. Nettleton's subject was "The Use of the Gravity Meter and other Geophysical Methods in the Search for Oil". The meeting was attended by 52 geologists and geophysicists, all actively engaged in exploration for oil in Nevada.

Geophysical mapping consists of measuring the various physical properties of rocks of the earth. Of the several methods employed, the Gravity Meter is particularly adaptable to rapid and inexpensive reconnaissance in the valley areas such as those in the Basin and Range province. It is an instrument which measures the rock density along a traverse, from which a profile can be constructed by plotting the difference in weight of the valley fill and lighter Tertiary sediments compared to the heavier underlying Paleozoic rocks. From the data obtained it is possible to estimate the thickness of the valley fill and Tertiary, and to contour the top of the heavier rock (Paleozoics) in the valleys of the Great Basin. Faults bounding the valleys can be detected, either grabens or tilted half grabens.

The correct interpretation of local variation or irregularity of a gravity anomaly depends on the ability of the geophysicist or geologist to make use of what is known of the regional and local geology.

Dr. Nettleton briefly compared Gravity Meter surveys with other methods of geophysical prospecting. Although the Gravity Meter is very useful in reconnaissance mapping, the seismic method is far more precise where the surface of a potential reservoir or formation tops are to be mapped.

The basic fundamentals of Gravity Meter surveying was explained by use of diagrams and slides, and the grid system used in computation of data was explained.

The topic was timely and well received, and a period of questions and discussion followed the talk.

APPOINTMENTS

Pacific Section President Frank Parker has announced the following appointments of the men who will assist him during 1955.

Geological Forum Chairman
Dana Detrick, Shell Oil Company

Distinguished Lecture Representative
Mel Hill, Western Gulf

Projectionist
Paul Elliott, Western Gulf

Publicity
Orrin Gilbert, Standard Oil

Classification Committee Chairman
Al Woodward, Union Oil

Legislative Committee Chairman
W. W. Porter II, Consultant

Transportation
Homer Steiny, Consultant

Directory Chairman
Warren Hagist, Superior Oil

Editor, PACIFIC PETROLEUM GEOLOGIST
Dick Haines, Continental Oil

COAST GEOLOGICAL SOCIETY

The new officers for the Coast Geological Society are:

President - Bob Herron, M.J.M.&M., Ventura
Vice-President - Harold Fothergill, Union Oil, Orcutt
Secretary - Tom Cate, Shell Oil, Ventura
Treasurer - Howard Stark, Richfield Oil, Ojai

Bob Hacker of Union Oil Company at Santa Paula is the correspondent for the coastal area.

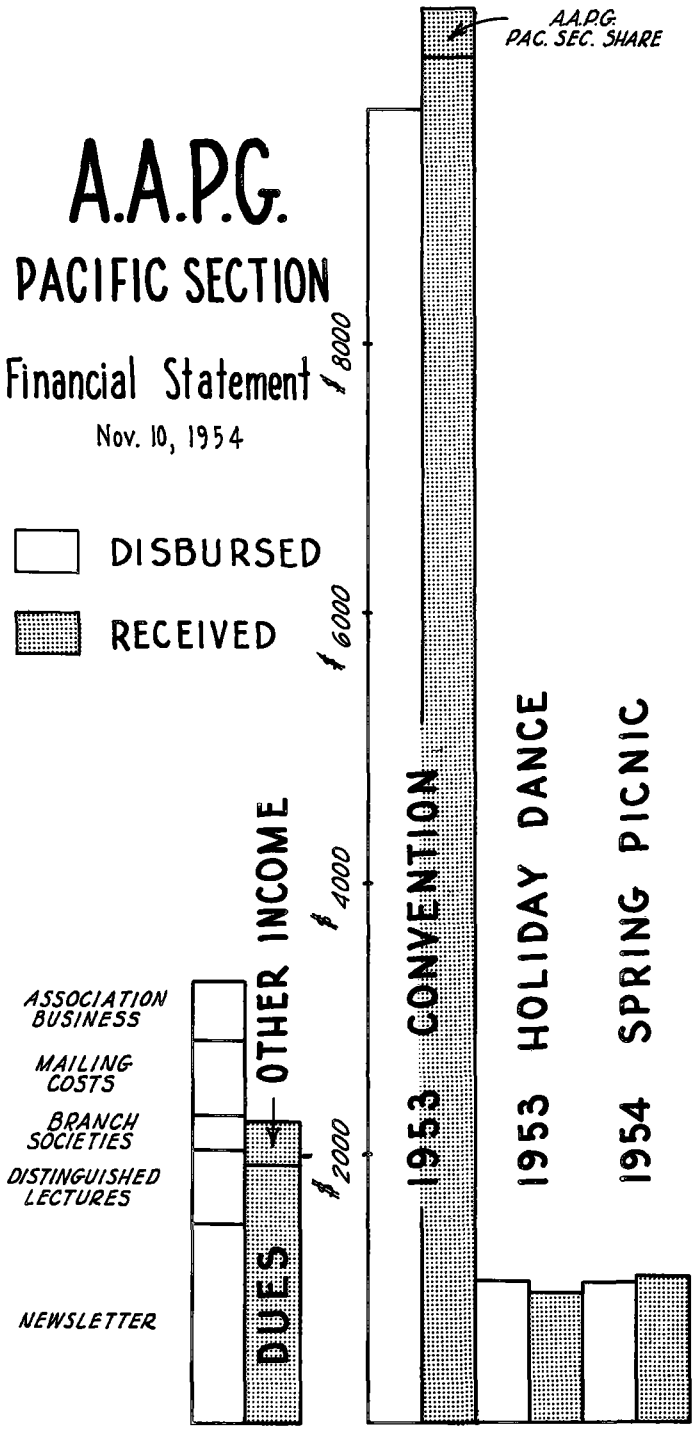
REVISION OF 1953 DIRECTORY

The 1954 revision to the 1953 AAPG-SEG & SEPM Directory will be mailed to all members in the very near future. The revisions are circulated to help you bring your 1953 Directory up to date. The revision sheets are organized so that the directory owner may cut out and insert the additions and corrections where possible or may leave the additional information intact.

A new directory will be published late in 1955. The 1955 edition will include all minor changes, such as phone numbers and local changes in address, which were too numerous to be included in the 1954 revision sheets.

Those who do not have a 1953 Directory may obtain one by sending their name and address plus $1.00 to:

Warren W. Hagist
Directory Chairman
The Superior Oil Company
930 Edison Building
Los Angeles 17, California



SAN JOAQUIN GEOLOGICAL SOCIETY

The following are newly-elected officers of the San Joaquin Geological Society:
President - Darrel L. Kirkpatrick, Consultant
Vice-President - Thomas Wilson, Ohio Oil
Secretary-Treasurer - Dick Hester, Signal Oil & Gas

Joe Parmenter, Western Gulf, has been appointed as correspondent to the PACIFIC PETROLEUM GEOLOGIST.

CONVENTION BRIEFS

Total attendence at the Fall Convention was 893 persons who signified the following affiliations, 678 A.A.P.G., 160 S.E.G., and 110 S.E.P.M. Dance Chairman, Russ Simonson, reports that 458 ladies and gentlemen enjoyed the Dinner Dance on November 12th in the Biltmore Ballroom.

Both amendments to the Pacific Section Constitution passed for adoption. Now we will have mail ballots for election of officers. It is now legal for the A.A.P.G. funds to draw more interest as they can be deposited in a Federal insured savings and loan association.

EASTERN NEVADA GEOLOGICAL SOCIETY

Ed Johnson, Continental at Elko, reports that the Eastern Nevada Geological Society boasts of 74 members and that regular meetings are held on the last Thursday of each month at either Ely or Elko.

Officers for the current year are as follows: Walter Smith, Shell, President, William C. Bishop, Richfield, Vice-President, Elmer Hutchins, Shell, Secretary-Treasurer, John C. Manning, Shell, Chairman Program Committee, Dan Flynn, General Petroleum, Elko Program Representative.

SACRAMENTO GEOLOGICAL SOCIETY

The Sacramento Geological Society has elected the following officers for the coming year:
President - Raymond C. Richter, California State Division of Water Resources
Vice-President - Swiss Holmes, Shell Oil Co.
Secretary-Treasurer - Harry Kues, U.S. Bureau of Recl.

The Pacific Petroleum Geologist correspondent for the Sacramento area will be Donald Barrett of General Petroleum Corp.

NORTHERN CALIFORNIA SOCIETY

On November 22nd the Northern California Geological Society held a stag dinner meeting, preceded by a cocktail hour at the Fraternity Club in San Francisco. Guest of Honor at the dinner was J. R. (Bill) Pemberton who showed his excellent collection of colored slides made during his most recent trip to Africa. There was an excellent turnout of both land and geological departments from the Bay Area and Sacramento. Stanford and the University of California were also well represented.

1955 DUES

Your subscription to PACIFIC PETROLEUM GEOLOGIST expires with this issue if your dues are not paid for 1955. Only 681 members and subscribers paid their dues of $2.00 during the fall meeting.

Since the functions of the Pacific Section now cost more than we have received in dues, these activities must be curtailed unless there are adequate funds in the treasury.

PLEASE, you delinquent geologists send in your check NOW. Make checks payable to Pacific Section A.A.P.G. for $2.00 and send to Louis J. Simon, c/o The Texas Company, Room 715, 939 South Broadway, Los Angeles 15, California.

PERSONAL ITEMS

F. A. (Fred) Menken, Vice-President and Manager of Exploration has resigned from Tide Water Assoc. Oil Co., to enter private consulting work in San Francisco. Fred graduated from Stanford and started work for the company in 1926. He became District Geologist of the San Joaquin Valley in 1933 and Chief Geologist of T.W.A.O. Western Division in 1936. Since 1951 he has been Vice-President and Manager of Expl. Western Division and supervised the exploration program in Western United States, Canada, and Alaska.

W. E. (Earl) Dillon has resigned as Assistant Vice-President of Tide Water Assoc. Oil Co., and will open a consulting office in San Francisco. Earl graduated from the University of California in 1937 and has been with T.W.A.O. since graduation.

H. H. (Hank) Neel has been appointed Divisional Geologist of Tide Water Associated and will supervise all exploration activities in the Western Division from headquarters in San Francisco.

A. S. (Ike) Holston of Tide Water Associated has been appointed Senior District Geologist of the Los Angeles Basin and Ventura Districts. His headquarters will be in Ventura.

Mr. T. W. Cameron, Tide Water, has been appointed District Geologist in charge of the San Joaquin and Sacramento Valley with headquarters in Bakersfield.

Vince W. Finch, Northwest Exploration Manager for Shell Oil Company, has excavated a duck pond on his estate near Seattle. We understand that duck hunters wanting reservations will have to get them in early as Vince has a limited number of blinds and ducks.

Ernie Bush, General Petroleum geologist, who for the past two years has been stationed at Big Piney, Wyoming, was transferred to Sacramento. Vic Smith, who has been in Big Piney eight months, will remain in the Nation's Deep Freeze. By this time Vic should have all the good fishing spots located on his P & C maps.

P. C. (Phil) McConnell, originally with Standard, who has been in the Near East for the past 16 years with Bahrein Petroleum and later with Aramco, has returned to the U.S.A. Phil hopes to retire in the Ojai Valley.

John Wagner, Union Oil Company, has been transferred from Sacramento to Bakersfield.

Because Johnnie Wents, Consultant, has had some exceptionally good duck shooting the first half of this season, "Ducks Unlimited" has threatened to detour the Pacific Flight through the Midwest.

Al Loskamp, Chief Geologist for the Plymouth Oil Company, Midland, Texas, was killed in a company plane in Virginia on November 22, 1954. Al was formerly associated with Earl Noble, Petroleum Consultant.

Dr. G. D. Louderback attended the recent dinner of the Northern California Geological Society in San Francisco. In his eightieth year, Dr. Louderback looked younger and more full of fire than some of his contemporaries in the oil business half his age.

Formation Logging Service Company has moved to 3434 West 43rd Street, Los Angeles 8, California. Mr. Bob Patterson is the supervisor.

Bob Allen, Jim Padick, Bart Pann and John Shakely are in Port of Spain, Trinadad, and are operating for Dominian Oil Company.

Ross Nichols has arrived in California for a six months' vacation after working three years for Caltex on the island of Sumatra. Ross reports that hunting game in Sumatra is 80.0 percent fear and 20.0 percent hunting. They hunt at night and it is necessary to crawl through brush without disturbing the King Cobra. He has shot his third tiger - but he claims that hunting pheasant at Pierpont Bay is more relaxing.

Bob Briggs is working for Caltex at Rumbai, Sumatra. His wife and young son have arrived to be with him. Bob's extra activity is teaching the natives to speak English.

The Coastal district offices of the Intex Oil Company were recently moved to Ventura according to Otto Hackel, Division Geologist. They are now at 131 South Chestnut Street, Post Office Box 1371 - Phone: MIller 8-2741.

Chuck Munson, Schlumberger Engineer, was recently transferred from Sacramento to Ventura.

Don L. Olson, formerly with United Geophysical Company, is now with Union Oil in Santa Paula, and is the Assistant Division Geophysicist.

John Nohrden, landman for Union in Sacramento, has been transferred to Santa Paula.

Frank Kilmer, Shell Oil, is back in Sacramento after a summer field mapping stint in Alaska.

The General Petroleum film entitled "In the Beginning" was shown at the November 9th meeting of the Sacramento Geological Society and was very well received.

The Standard boys are a bit leary about flying back to Sacramento from future A.A.P.G. conventions.. It seems that they took three passes at breaking through the fog at the Sacramento airport and finally made it on the third try, but only after narrowly missing several golfers on the local golf course.

Al Solari of Standard has joined the ranks of the "landed gentry" with a new home. He is now a slave to the "friendly" Southern Pacific during commuting hours.

Larry Kuenzi of Standard has been transferred from San Francisco to Seattle where he will do field work. Larry has been spending summers in Alaska but his little wife says those days have ended.

There appears to be a new fashion in field geologists' wearing apparel as demonstrated very effectively by Mel Hill, Western Gulf, and Dr. Harry Wheeler, University of Washington. After all, when stovepipe hats are worn about the Statler Hotel and in the Santa Monica Mts., it is apparent that a sudden change in proper headgear is eminent.

P.P.G. STAFF WISHES YOU THE HAPPIEST OF

SEASON'S GREETINGS

Mason Hill, Richfield, is visiting in Southern Arabia and other areas in the Far East. While there, he expects to encounter Manley Natland and Bill Bishop. He will return to Los Angeles about Christmas.

Mahlom Kirk, Shell paleontologist, is back from several months' tour of Alaska and is now in Bakersfield.

Tennant J. Brooks has become affiliated with Earl B. Noble and Associates, a new consulting firm located at 716 Oak Street, Bakersfield.

Ralph Arnold has returned from a two month's reconnaissance trip through the Navajo Indian Reservation of Arizona, Utah and New Mexico. Over 5,000 miles were covered and 250 black and white and colored photographs were taken. Mr. W. M. O'Dell formerly with the Arizona Land Commission, accompanied Mr. Arnold. The trip was made for the Arizona Gas and Chemical Company, Mr. Serge Besoyan of Fresno, and Mr. Stephan Riess. Simi.

Tom Bailey and Lowell Redwine were among those conducting the pre-convention field trip in the Santa Barbara area for the G.S.A. on October 30 and 31. Doyle Paul assembled the food and beer for the occasion.

NURSERY NEWS

B. R. "Swiss" and Wallie Holmes, Shell in Sacramento, welcomed their first son, Bruce Robert, on October 31st. Bruce weighed 8 lb., 15 oz.

To Joe and Kitty Johnson, Shell in Sacramento, a 6 lb., 11 oz. girl, Bridget Anne, born on November 5th.

Charley Booth, Shell geologist at Atascadero, is the proud father of a 5 lb., 6 oz., boy - Larry Randall - who will be a companion to his two year old daughter. Charley is already training the boy to carry his pick.

Don and Marlene Gillespie, Shell in Sacramento, announce the arrival of Megan Ann, 6 lb., 15 oz., born November 12th.

To Chuck and Jackie Monson a 7 lb., 6 oz., baby girl, Kerry Lee, born on November 8th. Chuck is with Schlumberger in Sacramento.

Bob and Marge Sanem, Standard in Los Angeles, announce the arrival of Susan Beth, born October 26th.

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"Reservoir Performance of the Dominguez Seventh Zone Townlot Pool", F. R. Wade, pp B98-108.

"Bank Loans on Oil and Gas Production", Harold Vance, pp E4-10.

CALENDAR

December 7, 1954: Tues., 7:30 p.m., Sacramento Geological Society Meeting, State Public Works Bldg., 1120 "N" St., Sacramento, Sargent M. Reynolds, Conslultant in Woodland, will present a paper entitled "Gas Fields of Yolo County".

December 7, 1954: Tues., 6:30 p.m., Branner Club Dinner Meeting, Athenaeum, Cal Tech. Campus, Dr. Donald B. McIntyre of Pomona College will talk on "Some Structural Features of the Scottish Highlands".

December 8, 1954: Wed., 7:30 p.m., Cal. Tech. Geol. Club, 155 Arms, Cal. Tech. Campus. Dr. Lauren Wright of the Calif. Div. Mines will speak on "The Rainbow Mountain Breccia".

December 9, 1954: Thurs., 6:30 p.m., A.I.M.E. Jr. Petroleum Group Dinner Meeting, Turf Club, Anaheim-Telegraph Road and Rosemead Blvd. The meeting will be a symposium on "The Growth of an Oil Field".

December 13, 1954: Mon., 7:30 p.m., San Joaquin Paleontology Seminar, Bakersfield J.C. Building. Dr. D. L. Inman, Scripps Institute of Oceanography, will discuss "Incidence and Character of Nearshore Sand Deposits".

December 15, 1954: Wed., 6:30 p.m., San Joaquin Geological Society Dinner Meeting, Spanish Ballroom, Hotel El Tejon, Bakersfield. R. H. Adams, Standard Oil Company of California, will give a talk on "Summary of Operations of the Elk Hills Naval Petroleum Reserve #1 from 1945-1954".

December 16, 1954: Thurs., 6:30 p.m., S.E.G. Distinquished Lecture Series, Dinner Meeting, Conference Room 1, Biltmore Hotel, Los Angeles. Dr. Charles B. Officer, geophysicist of Woods Hole Oceanographic Institute, Woods Hole, Mass., will be the speaker. The title of his lecture is, "Seismic Exploration and Research over Oceanic Areas".

December 20, 1954: Mon., 7:00 p.m., A.A.P.G. Pacific Section Forum Meeting regularly scheduled for this date will not be held this month in deference to the Holiday Season.

January 6, 1955: Thurs., Noon, A.A.P.G. Luncheon Meeting, Roger Young Auditorium, Los Angeles. The program, which will be presented by a representative of the Richfield Oil Corporation, is entitled "An Oil Field at Work".

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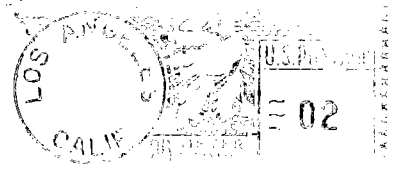

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Form 3547 Requested