



PACIFIC PETROLEUM GEOLOGIST NEWSLETTER

of the Pacific Section

American Association of Petroleum Geologists

VOLUME 33

SPRING, 1979

NUMBER 1

"CREATIVE CONCEPTS"

March 14-17, 1979
Disneyland Hotel
Anaheim, California

Balboa Cruises

Registration limited to: 120 per tour
Tourtime: 6:00 p.m.-8:00 p.m.
on board (bus departs hotel at
5:15 p.m. Returns at 9:00 p.m.)
8:30 p.m.-10:30 p.m. on board
(bus departs hotel at 7:45 p.m.
Returns at 11:30 p.m.)

\$12 per person (includes transportation, hot hors d'oeuvres, live music for dancing, scenic cruise, no-host cocktails)

Register early

Luncheon-Fashion Show

Friday, March 16th

No-host cocktails 11 a.m.

Luncheon 12 noon

Door Prizes \$15.00

JOINT LUNCHEON SPEAKER

Pacific Section AAPG-SEPM-SEG

The AAPG-SEPM-SEG joint luncheon will commence at 12:00 noon March 15 and the speaker will be Michel T. Halbouty. Mr. Halbouty is an honorary member of AAPG and its former President. He is a distinguished geologist and petroleum engineer, and among geologists is perhaps the most outspoken critic of Federal energy policies. Mr. Halbouty will address current developments in national energy policy and programs that are necessary to cope with United States petroleum requirements in the future.

THE COASTAL GEOLOGICAL SOCIETY CALL FOR PAPERS

The Coast Geological Society is requesting papers for the June 1, 1979 AAPG Spring Field Trip and Guidebook. The topic is the Tertiary of the Lake Casitas area with emphasis on the Sespe-Vaqueros. Time is of the essence. Those interested, please contact: Gary Bell, 4368 Deepark Court, Westlake Village, CA. 91361, (213) 991-2446 or Coast Geological Society, P.O. Box 3014, Ventura, CA. 93003.

AAPG/SEPM CONVENTION HOUSTON, TEXAS APRIL 1-4, 1979

Employment Interviews Center
AAPG-SEPM Annual Convention
Houston, Texas
April 1-4, 1979

The annual convention of the American Association of Petroleum Geologists and the Society of Economic Paleontologists and Mineralogists brings several thousand geoscientists together. One of the significant functions of the convention is the Employment Interviews Center. We would appreciate your help in announcing this service either at one of your upcoming society meetings or in one of your society newsletters.

Our Employment Interviews Committee will serve as an intermediary for the employer and employee. We will maintain a list of prospective applicants and their qualifications, match these with an employer's requirements, and arrange appointments for interviews.

For more information, applicants and those persons wishing to interview should contact the Employment Interviews Chairman, Robert A. Harris, Mitchell Energy Corporation, 3900 One Shell Plaza, Houston, Texas 77002.

STATE BOARD OF REGISTRATION

The State Board of Registration for Geologists and Geophysicists has scheduled a geology and geophysics examination for May 18, 1979, and the engineering geology examination for May 19, 1979. New applications must be received by February 18, 1979. Applicants who are retaking the examination must submit their applications by March 18. Examinations will also be given for geology and geophysics on November 16, 1979, and for engineering geology on November 17, 1979.

If you have any questions regarding the examinations, please contact the Board office at 1020 N Street,

LAND OF COCHISE

(Southeastern Arizona)

1978 Guidebook of the
New Mexico Geological Society

"Land of Cochise" is a comprehensive 372-page volume prepared for the 29th consecutive Annual Field Conference of the New Mexico Geological Society held in cooperation with the Arizona Geological Society in Southeastern Arizona on November 9-11, 1978. J. F. Callender, J. C. Wilt, R. E. Clemons (editors), and H. L. James (managing editor) have put together a handsome, informative, and copiously illustrated symposium-type volume.

The guidebook contains 680 miles of road logs in southeastern Arizona and southwestern New Mexico. In addition, the book contains a lexicon and 30 papers on the history and flora, stratigraphy, geochronology, paleontology, petrology, structure and tectonics, geophysics, and economic geology of the region. It is a comprehensive update and expansion of the Arizona Geological Society's 1968 Guidebook III.

"Land of Cochise" priced at \$25.00 (hard cover) and \$20.00 (soft cover) is available from the New Mexico Geological Society, Campus Station, Socorro, N.M. 87801. All previous 28 guidebooks and seven special publications are also available, as is a free price list.

FOR SALE: Geologic Library

Bill Corey is selling the following:

Geo Times, 1971-75

Geology, 1969-78

G.S.A. Bulletins, 1969-78

AAPG, 1966-78

California Geology, 1969-78

Abstracts and Programs from

G.S.A., AAPG, SEPM, 1957-78

Will sell all or part at subscription price or less depending on the volume. There are many other books, publications, etc. which are available. To see, call Gary Bell at (213) 991-2446.

Room 421, Sacramento, California
95814, telephone (916) 445-1920.

SOCIETY OF PETROLEUM ENGINEERS

CALIFORNIA REGIONAL CONFERENCE ON FORMATION DAMAGE CONTROL

In response to the need for an exchange of information and ideas related to improving oil and gas well productivity and profitability through better completion, workover, and stimulation techniques with special emphasis on California problems, the Los Angeles Basin Section of the Society of Petroleum Engineers is sponsoring the 1979 California Regional Conference on Formation Damage Control. The one-day meeting will be held on Friday, February 9, 1979, at the Davidson Conference Center on the University of Southern California Campus, Los Angeles, California.

It is hoped that the attendees will include engineers, drilling foremen, service company representatives, research scientists, production foremen, and managers; that is, all those who influence well productivity. An informal atmosphere to encourage participation by attendees will be created by the panel discussion format for the four consecutive sessions planned.

The first session will present the central theme of the conference: Coordination of the many disciplines involved is required to improve well productivity and profits by reducing avoidable formation damage. The moderator of the panel, Mr. Al Horn, will present the keynote address; and then introduce the six panelists representing engineering, drilling, service companies, research, production operations, and management points-of-view.

The remaining three sessions will consist of panels dealing with the topics of: "Drilling, Completion, and Workover"; "Cementing, Perforating, and Sand Control"; and "Fracturing, Acidizing, Thermal Treatment, and Water Control," with George Maley, Ralph Millhorne, and Dick Weinbrandt as moderators, respectively.

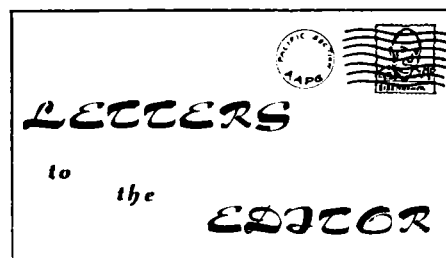
Announcements have been mailed to all SPE members in California during December 1978, or Bruce Barron, Petroleum Testing Service, Santa Fe Springs, (213-698-0081). Dick Aseltine, Chevron, USA in Inglewood, Calif. (213-295-6365) is Arrangements Chairman, and Stan Shryock with Halliburton in Norwalk, Calif. (213-864-2551) is Program Chairman.

Tentative Program

Davidson Conference Center
for Continuing Education
USC Campus—Los Angeles, Calif.
Date: February 9, 1979

- I. Keynote Address, 8:30-9:10 a.m.,
Mr. A. J. Horn, Educator and
Petroleum Consultant
- II. Keynote Panelists, 9:10-10:30
a.m., Mr. Horn, Moderator
 - (1). Engineering, David Mota-
zedi, Mobil Oil Corporation
 - (2). Drilling, J. G. Schaeffer, Jr.,
Union Oil Co. of Calif.
 - (3). Service Companies, Ron
Turner, Baker Oil Tools
 - (4). Research, Claude Fiddler,
Chevron Oil Field Research
Company
 - (5). Production, R. L. Goggins,
Aminol USA, Inc.
 - (6). Management, R. L. Sloan,
Tenneco Oil Company
- III. Special Topic Panelists, 10:30
a.m.-5:00 p.m. with 1½ Hr. Lunch
break
Each Panel Group to have 1:45
(Hrs:Min)
 - (A-Panel) Moderator, George Maley,
Union Oil Research
Drilling, Dr. Randy Reud-
rich, Atlantic Richfield
Company
Completions, A. M. Laurie,
Union Oil Company of
California
Workovers, Roy Essary,
Chevron USA, Inc.
 - (B-Panel) Moderator, Ralph Mill-
horne, Chevron Oil Field
Research
Cementing, Stan Shryock,
Halliburton Services
Perforating, (1). Earl Rog-
ers, Chevron USA, Inc.
(2). Cyril Sumner,
Welex
Sand Control, (1). Mike
Flannigan, Aminol USA
(2). John Haushalter,
Getty Oil
 - (C-Panel) Moderator, Dick Wein-
brandt, Aminol USA
Fracturing, Jim Stone,
Gulf Energy and Min-
erals Company, USA
Acidizing, Gene Kozlowski,
Diversified Chemicals
Thermal, Chuck Gates,
Mobil Oil Corporation
Water Control, Bill Still-
well, Champlin
Petroleum

Questions from the audience are encouraged and planned. We anticipate having 20-30 minutes of discussion following each panel. The moderator will field the questions asking one of his panelists to respond.



There is a misconception held by most geological scientists on the West Coast that I would like to clear up at this time. The Pacific Section of the SEG does not encompass all of the local West Coast geophysical societies as the Pacific Section of the AAPG does with the various geological societies.

The Bay Area Geophysical Society (BAGS) is a separate entity from the Pacific Section of the SEG (which includes only a Southern Division—Los Angeles area—and a Northern Division—Bakersfield area). The BAGS is a section of the SEG unto itself. Being isolated from the mainstream of activity in the San Joaquin Valley and south, and because of the above mentioned misconception, the BAGS has been historically not included in West Coast geological activities such as the Pacific Sections AAPG, SEPM, and SEG conventions, excepting those held in San Francisco. Although a small group (76 members), the BAGS would welcome greater involvement in West Coast activities among the other geological and geophysical societies.

The same misunderstanding may also exist for the Geophysical Society of Alaska located in Anchorage.
EDWARD A. FRANKOVIC

URANIUM GEOLOGY AND EXPLORATION SHORT COURSE

A three-day short course in **Uranium Geology and Exploration** is to be offered twice, March 14-16, and July 11-13, 1979, by Dr. Richard H. DeVoto of the Colorado School of Mines. The course covers: a) The geochemistry and geology of uranium, b) The mechanisms important in the generation of anomalous uranium concentrations, c) The many geologic environments favorable for the formation of economic and subeconomic uranium deposits, and d) Exploration techniques and programs.

Registration fee: \$300.

For information regarding the course, contact the office of Continuing Education, Colorado School of Mines, Golden, Colo. 80401; Telephone (303) 279-0300, extension 2321.

**PACIFIC SECTION —
AMERICAN ASSOCIATION
PETROLEUM GEOLOGISTS**

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Material for publication and requests for previous copies should be addressed to JOHN W. LIDSTROM, TEXACO INC., 3350 WILSHIRE BLVD., L.A., CALIF. 90010.

CHANGE OF ADDRESS, subscription, and membership inquiries should be directed to: MEMBERSHIP SECRETARY, PACIFIC SECTION AAPG, P.O. BOX 1072, BAKERSFIELD, CALIFORNIA 93302.

PUBLICATIONS COMMITTEE: Pacific Section American Association of Petroleum Geologists, P.O. Box 4164, Thousand Oaks, CA 91359.

involved and from the research fields undertaken: Z Garfunkel, R. Freund, Hebrew University; A. Ginzburg, Tel-Aviv University; R. Shagam, Ben-Gurion University; Z. Ben-Avraham, Weizmann Institute; Y. Bartov, Geological Survey; Y. Folkman, IPRG (Geophysical Institute), and E. Kashai, OEIL (Oil Companies).

Prof. L. Picard and Prof. A. Ben-Menahem will be the honorary chairmen of the geological and the geophysical parts of the meeting.

Pacific Section

OFFICER NOMINATIONS PACIFIC SECTION AAPG

President-Elect (To serve as President in 1980-81)

Rich, Ernest I.,
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Chandler, Susan M., Getty Oil
Hopps, Thomas E.,
Argo Petroleum

MEMBERSHIP REPORT PACIFIC SECTION AAPG

Northern California	
Geological Society	164 paid 4 honorary 168 total
Sacramento	
Petroleum Association	51 total
San Joaquin	
Geological Society	260 paid 3 honorary 263 total
Coast	
Geological Society	120 paid 2 honorary 122 total
Los Angeles Basin	
Geological Society	334 paid 7 honorary 341 total

Alaska	
Geological Society	26 total
Other	175 total
Total Membership (included honorary)	1146

PACIFIC SECTION—A. A. P. G.

Founded 1925

California • Oregon • Washington • Alaska

1978-79

DUES STATEMENT — 1978-79

(This statement is for 12 months—July 1, 1978 through June 30, 1979)

Current Annual Dues	\$5.00
Foreign Air Mail	4.00
Extended Mailing List	3.00
(LA & SJ Society only)	

TOTAL PAYMENT \$

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DUES ARE DUE AND PAYABLE JULY 1. AFTER THAT DATE YOU WILL BE DROPPED FROM THE MAILING LIST.

Society Data:

Member National AAPG

Geologist

Engineer

Service Co.

Other

THE DEAD SEA RIFT SYMPOSIUM

According to the proposal made at the Rio Grande Symposium, the next "International Symposium on Rift Zone of the Earth: The Dead Sea Rift" will take place coming September (1979) in Jerusalem. The suggested dates (because of Jewish New Year on Sept. 22-23 and Mediterranean Neogene Symposium in Athens on Sept. 27-Oct. 1) are Sept. 11-20, including field trips north and south (Sept. 11-13), meeting in Jerusalem (Sept. 14-17), field trips south and north (Sept. 18-20).

The meeting will be held in Jerusalem or in a nearby kibbutz. Technical arrangements are undertaken by "Kenes," a commercial organization which did an excellent job for the International Sedimentological Congress last July. Unfortunately, it is not possible to have the meeting on the university's premises, as the university cannot give a definite reply before February.

The registration fee is \$60.00; the south trip will cost \$170.00 and the north one \$110.00. The executive and program committee comprise representatives from all Israeli institutions

54th Annual Meeting

PACIFIC SECTIONS — AAPG • SEPM • SEG
 Disneyland Hotel, Anaheim, California — March 14-17, 1979
 TENTATIVE TECHNICAL PROGRAM

Thursday Morning—March 15—Joint Session—AAPG, SEPM, SEG

- 7:00** Speaker's Breakfast
 Presiding: **Art Spaulding**
- 9:00** Introductions and Welcome: **Wayne Estill** and **R. N. Hacker**
R. D. Gunn—National AAPG President
E. J. Northwood—SEG President
D. M. Curtis—National SEPM President
 Awards Presentations
- 9:45** **Keynote Address: Ken Crandall**, Visiting Professor, Stanford University—"Creative Concepts—Their Importance in Petroleum Exploration"
- 10:15** **H. William Menard**, Director, U.S. Geological Survey, Washington, D.C. "U.S. Petroleum Resources"
- 10:40** **Frank Gregg**, Director, U.S. Bureau of Land Management, Washington, D.C.—"Public Lands and Their Role in Supplying U.S. Petroleum Requirements."
- 11:05** **Wilson Clark**, Assistant to Governor Brown, Issues and Planning, Sacramento, California—"The Political Climate for Petroleum Development in California"
- 11:30** **A. A. Meyerhoff**, Consulting Geologist, Tulsa, Oklahoma—"Global Prospects for Petroleum Discovery and the U.S. Dilemma"

Joint AAPG-SEPM-SEG Luncheon

Thursday Afternoon—March 15—AAPG Offshore Session

Session Chairman: **Lee Meador**

- 2:00** **Bob Yeats**, Professor, Ohio University, Athens, Ohio—"Glomar Challenger off Alta and Baja California—Leg 63 of the Deep-Sea Drilling Project"
- 2:30** **Jim Crouch**—"Structure and Stratigraphy of the Northwestern Margin of the California Continental Borderland"
- 3:00** **Arne Junger**, University of California, Santa Barbara, California—"Yo-yo Structures in the Southern California Borderland"
- 3:30** **Donn S. Gorsline**, University of Southern California, Los Angeles, California—"Non-Turbidite Processes in Basin Filling"
- 4:00** **R. C. Bostrom**, University of Washington, Seattle, Washington—"California Basins and Intrabasinal Structure; Flow Processes in the Mantle"
- 4:30** **L. B. Magoon (Speaker)**, U.S. Geological Survey Menlo Park, California; **G. E. Claypool**, U.S. Geological Survey, Denver, Colorado—"Petroleum Geology of Cook Inlet, Alaska"
- S. Eittreim, (Standby Paper)**, "Seismic Stratigraphy and Petroleum Potential of Hope Basin, SW Chukchi Sea, Alaska"

Thursday Afternoon—March 15—SEPM Session

- 1:30** **Warren O. Addicott**, U.S. Geological Survey, Menlo Park, California—"The Marine Cenozoic of the Pacific Coast States: An Overview of the Growth and Development of Biostratigraphic Research"
- 1:50** **John M. Armentrout**, Mobil Oil Corporation, Denver Colorado—"Pacific Coast Cenozoic Chronologic Framework"
- 2:10** **William R. Dickinson**, Geology Dept., Stanford University, Stanford, California—"Cenozoic Plate Tectonic Setting of the Cordilleran Region in the United States"
- 2:30** **Tor H. Nilsen**, U.S. Geological Survey, Menlo Park, California—"Paleogene Paleogeography of the West Coast"
- 2:50** **Mark R. Cole**, **John M. Armentrout**, Mobil Oil Corp., Denver, Colorado, and **Texaco Inc.**, Los Angeles, California—"Neogene Paleogeography of the West Coast"
- 3:10** **Peter J. Coney**, Dept. of Geosciences, University of Arizona, Tucson, Arizona—"Tertiary Evolution of Cordilleran Metamorphic Core Complexes"
- 3:30** **Myrl Beck**, **Allan Cox**, Dept. of Geology, Western Washington University, Bellingham, Washington and **Geophysics Dept.**, Stanford University, Stanford, Calif.—"Paleomagnetic Evidence for Large-Scale Tectonic Rotations and Translations Along the Western Edge of North America"

British Columbia

- 3:50** **James M. Drummond**, Mobil—"Factors Influencing the Distribution of Sediments Along the West Coast of Washington-Oregon"
- 4:10** **William A. Buckovic**, Minerals—"A Middle to Upper Eocene Deltaic and Washington"
- 4:30** **John M. Armentrout**, **Mark R. Cole**, **Texaco Inc.**, Los Angeles and **Middle Eocene Deltaic and Washington"**
- 4:50** **Robert M. Thorson**, **Fred Pessl**, **Washington**—"Reconstruction of the Evolution of Proglacial Lake"
- 5:10** **Donald A. Swanson**, **Thomas L. Park**, California and **U.S. Geological Survey**, "Geology of Southeast Washington Based on the Distribution of the Eocene"
- 5:30** **Don J. Easterbrook**, **Dept. of Geology**, **Bellingham, Washington**—"The Eocene of Bellingham, Washington"

Thursday Afternoon—March 15—SEG Session

- 2:00** **R. E. Conrad II** and **R. Randy Rasmussen**—"How to Set-Up Your Own Acoustic Velocities from Outcrop"
- 2:30** **T. R. LaFehr** and **Alan T. Herd**, **Sultants**, **Denver, Colorado**—"Near Surface Gravity Meter (Borehole)"
- 3:00** **A. O. Ramo** and **J. W. Bradley**, **Dallas, Texas**—"Bright Spots, Microseismicity and Potential Solutions"
- 3:30** **M. R. Bone**, **R. M. Lansley** and **Inc.**, **Dallas, Texas**—"Near Surface and Potential Solutions"
- 4:00** **Ron MacCallum** and **John C. MacCallum**, **Canada**—"Interactive Modelling of Seismicity"
- 4:30** **J. W. Gasch**, **Gasch & Associates**, **Geophysics Paper**

Friday Morning—March 16—AAPG Session

- 7:00** Speaker's Breakfast
 Session Chairmen: **John Minchin** and **John Minchin**
- 9:00** **John Minchin**, **Saddleback College**, **and its Bearing on the Petroleum Industry**
- 9:30** **G. L. Guthrie**, **Independent Geologist**, "Cretaceous Oil and Gas Possibilities"
- 10:00** **James H. Dorman**, **Tenneco Company**, "Oil and Gas from Submarine Canyons"
- 10:30** **Roberto Garcia**, **Phillips Petroleum Company**, "Depositional Systems and Their Role in the Sacramento Valley, California"
- 11:00** **P. E. Schnurr** and **E. Koch**, **Exxon Company**, **San Francisco, California**, **Fernando Valley, California**
- 11:30** **Wayne D. Estill**, **American Petroleum Institute**, **California**—"Kettleman City—Very Best"

Friday Morning—March 16—SEPM Session

- 8:30** **Cynthia D. Burr**, **Amoco Production Company**, "magnetic Results of the Goble Valley: a Possible Reconstruction of the Tectonic History of the Goble Valley"
- 8:50** **Paul E. Hammond**, **Dept. of Earth Sciences**, **Portland, Oregon**—"Tectonic Modelling of the Idaho-Nevada Borderland"
- 9:10** **Robert G. Bohannon**, **U.S. Geological Survey**, "Strike-Slip Faults of the Lake County, California"
- 9:30** **Roswitha B. Grannell**, **Donald B. Grannell**, **California State University, Long Beach**, **Geology and Geological Engineering**

Oil Canada, Ltd., Calgary, Alberta —
Distribution and Facies of Cenozoic Marine
Sediments of British Columbia, Canada"

Exploration Company, Casper, Wyo.—
Prograding Deltaic System in Western

Cole, Mobil Oil Corp., Denver, Colo-
rado, California—"Paleogeography of a
Subsea Fan Complex, Northwestern

, U.S. Geological Survey, Seattle, Wash-
ington—Late Pleistocene Cordilleran Sheet and
Sediments in the Puget Lowland, Wash."

Wright, U.S. Geological Survey, Menlo
Park, California—U.S. Geological Survey, Reston, Virginia—"Paleo-
geography During the Middle and Late Mio-
cene of Intracanyon Basalt Flows"

Geology, Western Washington University,
Bellingham—Last Glaciation of Northwest Wash-

Onshore Session

City, Cities Service Co., Denver, Colorado
—Geophysical Data for Determination of Subsurface
Structure and Laboratory Measurements"

Wright, EDCON, Exploration Data Con-
ference—Narrow Diameter Lacoste and Rom-
berg (HGM)"

City, Sunoco Energy Development Co.,
Houston, Texas—Geophysical Data and Gammas"

Dr. M. E. Laidley, Geophysical Services,
Houston, Texas—Gravity Anomalies: An Update on Detection

Dr. J. A. Ward, Geodigit Inc., Calgary, Alberta,
—A New Method of Interpretation"

Dr. J. A. Ward, Sacramento, California—(Engineering

Onshore Session

Dr. J. A. Ward and Wesley Franklin

Dr. J. A. Ward, Mission Viejo, California—"Loreto
Basin Possibilities of Baja, California"

Dr. J. A. Ward, Geologist, Balboa Island, California —
Sedimentation in the Capistrano Embayment"

Dr. J. A. Ward, Oil Company, Bakersfield, California—
Channels in Great Valley, California"

Dr. J. A. Ward, Petroleum Company, Denver, Colorado —
Their Relationship to Gas Accumulation

Dr. J. A. Ward, Exploration Department Chevron U.S.A.
Inc.—"Pacoima Oil and Gas Field, San

Dr. J. A. Ward, Pacific International, Inc., Los Angeles,
—When You Core Enough You Get the

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—When You Core Enough You Get the

mination of Some Aspects of Tertiary Paleogeography in North-Central
Nevada from Geophysical and Geologic Data"

9:50 James R. Firby, Dept. of Geology, University of Nevada, Mackay
School of Mines, Reno, Nevada—"Paleogeographic and Biostratigraphic
Relationships of Late Tertiary Lake Beds of Western Nevada"

California

10:10 Joseph C. Clark, H. Gary Greene, U.S. Geological Survey, Menlo
Park, Calif.—"Neogene Paleogeography of the Monterey Bay Area,
California"

10:30 Perry L. Ehlig (Speaker), Stephen E. Joseph, Keith W. Ehler, Dept.
of Geology, California State University, Los Angeles, Calif. and Robert
Stone and Associates, Canoga Park, California—"Magnitude and Timing
of Offset on the San Andreas Fault in Southern California and its Effect
on Miocene and Pliocene Paleogeography"

10:50 Robert S. Yeats, Dept. of Geology, Oregon State University, Corvallis,
Oregon—"Santa Susana Fault System, Transverse Ranges, California"

11:10 Terry E. Davis (Speaker), Perry L. Ehlig, Gary Lass, Dept. of Geology,
California State University, Los Angeles, Calif. and Moore & Taber,
Anaheim, California—"Rb/Sr Geochronology of the Vincent Thrust and
Pelona Schist and its Tectonic Implications"

Friday Morning—March 16—SEG Technology Session

9:00 Sigmund Hammer Professor Emeritus of Geology and Geophysics,
University of Wisconsin, Madison—"Improved Oil-Finding with Gravity
Gradient Surveys"

9:30 George R. Ramsayer, Exxon Production Research, Houston, Texas—
"Seismic Stratigraphy, A Fundamental Exploration Tool"

10:00 Lloyd R. Walker, Sefel J. & Associates, Houston, Texas—"The Extraction
of Velocity Information from Seismic Data"

10:30 J. Sherwood, P. Schultz, Jim Lin and D. Judson, Digicon Geophysical
Corp., Houston, Texas—"Depth Migration of Seismic Data"

11:00 A. Herman, Seismograph Service Corp., Tulsa, Oklahoma—"A Fast 3-D
Modeling Technique and Fundamentals of 3-D Frequency Domain
Migration"

11:30 J. Chun, C. Jaccwitz and R. Veazey, Seismograph Service Corp., Tulsa,
Oklahoma—"Micro Velocity Spectra and Applications"

Alumni Luncheon

Friday Afternoon—March 16—AAPG Technology Session

Session Chairmen: **John St. John and Floyd Sabines**

2:00 Don Padick, Don Padick Geological Well Logging Services, Simi Valley,
California—"Hydrocarbon Logging - Collection and Evaluation of Data"

**2:30 F. M. Eaton (dec.), J. W. Elliott, F. D. Hurlston, R. S. Olsen, D. J.
Vanderschel, J. P. Waren and J. Chin (Speaker)**, Schlumberger Well
Services, Houston, Texas—"The Cyber Service Unit - An Integrated
Logging System"

3:00 Bill Graham, Consulting Petroleum Engineer—"Sand Control and
Selective Completion Technique - Ojai (Silverthrust) Field, Ventura
County, California"

3:30 D. Cannon—"Log Analysis of the Monterey Formation"

4:00 P. R. Wesendunk, E. W. Christensen, C. E. Kirschner (Speaker),
Chevron U.S.A. Inc., San Francisco, California—"Heavy Mineral Studies,
Cook Inlet Basin, Alaska"

4:30 To Be Announced

Friday Afternoon—March 16—SEPM Session

1:30 Stephan A. Graham, Exploration Dept., Chevron U.S.A. Inc., San
Francisco, Calif.—"Tertiary Paleotectonics and Paleogeography of the
Salinian Block"

1:50 John M. Lohmar (Speaker), John E. Warme, Exxon Co. U.S.A.,
Houston Texas and Dept. of Geology, Rice University, Houston, Texas
—"An Ancient Shelf Margin: San Diego County, California"

2:10 Dennis R. Kerr, Dept. of Geol. Sciences, San Diego State Univ., San
Diego, Calif.—"Sedimentology of the Split Mountain Formation in the
Anza-Borrego Desert"

2:30 Stephan A. Graham, Exploration Dept., Chevron U.S.A. Inc., San
Francisco, Calif.—"Early Eocene Sediment Dispersal in the Central San
Joaquin Valley: Origin of the Cantua Sandstone"

- 2:50 Charles J. Stuart**, Dept. of Geol. Sciences, University of Texas, El Paso, Texas—"Miocene Paleogeography of Coastal Southern California and the California Borderland — Evidence from the San Onofre Breccia"
- 3:10 Eugene Fritchie**, Dept. of Geosciences, California State Univ., Northridge, California—"Miocene Paleogeography of Central California"
- 3:30 Lawrence Phillips**, U.S. Geological Survey, Menlo Park, California—"Late Miocene Paleogeography of the Santa Cruz Region, California"
- 3:50 Paul J. Fritts**, Dept. of Geol. Sciences, California State Univ., Long Beach, California—"Evidence from the Bouse Formation for a Pliocene Extension of the Gulf of California"
- 4:10 Geoffrey W. Nason (Speaker), Terry E. Davis, Robert J. Stull**, Dept. of Geology, California State University, Los Angeles, California — "Cenozoic Volcanism in the Newberry Mountains, San Bernardino County, California."
- 4:30 Richard W. Hurst**, Dept. of Geology, California State University, Los Angeles, Calif.—"Geologic and Geochemical Investigations of Miocene Volcanics in the Transverse Range, Southern California"
- 4:50 Roy K. Dokka, Steven H. Lingrey**, Dept. of Geological Sciences, University of Southern California, Los Angeles, California and Dept. of Geosciences, University of Arizona, Tucson, Arizona—"Fission Track Evidence for a Miocene Cooling Event, Whipple Mountains, South-eastern California."
- Friday Afternoon—March 16—SEG Offshore Session**
- 2:00 Michael R. Ploessel, S. C. Crissman, H. H. Rudat, R. Son, C. F. Lee, R. G. Randall and M. P. Norton**, McClelland Engineers, Inc., Ventura, California—"Summary of Potential Hazards and Engineering Constraints, Proposed OCS Lease Sale #48, Offshore Southern California"
- 2:30 L. Hatton, K. Larner and B. S. Gibson**, Western Geophysical Co., Houston, Texas—"Migration of Seismic Data from Inhomogeneous Media"
- 3:00 Carl Savit and I. Chi Hsu**, Western Geophysical Co., Houston, Texas—"Seismic Indications of Lithology"
- 3:30 M. H. Houston and R. T. Buffler**, University of Texas Marine Science Institute, Galveston, Texas—"Widespread Occurrence of Gas-Hydrate Horizons from Continental Slopes as Identified on Seismic Reflection Profiles"
- 4:00 C. G. Dahm and R. J. Graebner**, Texas Pacific Oil Company, Dallas, Texas and Geophysical Services, Inc., Dallas, Texas—"Field Development with Three-Dimensional Seismic Methods in the Gulf of Thailand — A Case History"
- 4:30 M. V. Dauzacker and M. Figueiredo**, Petrobras, Austin, Texas — "Seismic-Stratigraphic Analysis of Offshore Brazilian Post-Rift Basins — An Exploration Approach" (*Tentative*)

CORRELATION OF STRATIGRAPHIC UNITS OF NORTH AMERICA COSUNA

In October of 1976, an ambitious and much needed project, sponsored by the American Association of Petroleum Geologists (AAPG), was started by Professor Orlo E. Childs of Texas Tech University. The main objective of this project, called the Correlation of Stratigraphic Sections of North America (COSUNA), is to publish a set or sets of columnar stratigraphic sections, representative of the geology within the many geologic provinces of the United States. The California Division of Mines and Geology is involved in coordinating the California portion of this project over the next year or two. James F. Davis, State Geologist, Sacramento, and Charles C. Bishop, Geologist, San Francisco Dis-

trict, have been named California Regional Coordinators.

The general format will follow that of the charts published by the Geological Survey of Canada as a part of Economic Geology Report No. 1, 1970. For purpose of compilation, the United States has been divided into the geologic provinces as shown on the AAPG-CSD (Committee on Statistics of Drilling) Geologic Code Map. The stratigraphic sections will be grouped by province, and these will be combined into regions. The California Region includes most of California and that part of Oregon that lies within the Klamath Mountains province, but excludes Modoc and Lassen Counties as well as Mono and Inyo Counties which lie within the Great Basin Region.

The AAPG-CSD Code map divides the California Region into 14 on-shore and 3 off-shore provinces. The boun-

daries of the on-shore areas follow county lines rather than natural geomorphic province boundaries in order to accommodate the computer program to which the Code map is linked. This may cause some problems, but they are not insurmountable.

Although work on the COSUNA Project has been going on for some time in other regions of the country, the effort in California is just getting underway. It is hoped that the basic data can be compiled and all of the individual sections within this region can be constructed and assembled in chart form within the calendar year of 1979. The problems of correlation that undoubtedly will arise must then be resolved prior to final drafting and publication.

Currently, the support and cooperation of members of the geologic profession within the California Region are needed, especially persons who are willing to act as Province Chairmen and/or compilers of individual columns. The primary job of the Province Chairmen is to take the responsibility for compiling a set of stratigraphic and basement columnar sections, strategically located throughout the province, so as to best represent the rocks and the geology of that area. This will be accomplished by soliciting the help of individual geologists and paleontologists, particularly knowledgeable within an area, to do the construction work on the sections and provide the necessary documentation and references. In addition, the Province Chairmen must coordinate and correlate the efforts to assure that the products follow and fit the format for the national charts.

Although the emphasis will be on subsurface sections, the complexity of California geology is such that both surface and subsurface sections will be needed. In that respect, it is hoped that the petroleum industry will be able to provide most of the help with the subsurface and soft rock work and that the academic community will provide the surface and hard rock input. No firm dividing lines should be drawn, however. It is anticipated that each province will require a minimum of five sections to adequately portray the geology and stratigraphy of the California Region, so there is a need and a place for all who would like to help with this effort.

For more information, or in responding to this request for your help, please contact: Charles C. Bishop, Division of Mines and Geology, Ferry Building, San Francisco, CA 94111, Phone: (415) 557-3638.

Northern California

Dr. Paul Hoffman, AAPG Distinguished Lecturer, addressed the December 6 meeting of the NCGS. His talk on the stratigraphic and structural development of aulacogens drew a highly favorable response from those in attendance, a reaction not unlike that expressed for previous NCGS events.

The report on our September meeting in the Fall Newsletter was a personal appraisal and did not reflect either the official position of the Society nor, apparently, the consensus of those who attended. Dr. Duane Packer, who was technical director for Woodward-Clyde Consultants, discussed that firm's appraisal of the Auburn Dam site. The subject was topical and stimulated numerous questions from the audience. The question period had to be arbitrarily terminated and the meeting adjourned in order to clear the restaurant.

Upcoming NCGS speakers tentatively include Don Secor (Feb. 26—Oil migration on fractures of hydraulic origin), Bob Erickson (Mar. 14—subsurface hazards in oil and geothermal developments), Ed Pittman (Apr. 18—Diagenesis of reservoirs), Andre Sarna (May 17—Quaternary geology of the S.F. Bay area), and Jack Healy (Jun. 13—Recent developments in earthquake research). Talks will still be held at the Leopard Cafe, although many members have questioned the adequacy of such an arrangement. We've looked into holding meetings at the Engineer's Club, but their price is prohibitive. Also, seating is limited to 50 persons, whereas attendance at past meetings has averaged about 60. If anyone has a suggestion on where future meetings may be moved to, you are encouraged to contact Les Magoon at 856-7028.

NCGS membership now stands at 226, of which 12 are women, and 41 are new to our organization this year. It is definitely not too late to apply for membership. Contact Barry Solomon at the U.S. Geological Survey, 345 Middlefield Road, Mail Stop 80, Menlo Park, CA 94025.

BARRY SOLOMON

AAPG DISTINGUISHED SERVICE AWARD

Dr. John C. Maher, U.S. Geological Survey, Office of International Geology in Menlo Park, California has

ASSOCIATION OF ENGINEERING GEOLOGISTS SOUTHERN CALIFORNIA SECTION AVAILABLE PUBLICATIONS

1. (a) *Geology and Urban Development*, October, 1965 \$1.00
- (b) *Field Trip Guidebook: Sycamore Canyon Fault, York Boulevard Fault, Raymond Fault and Sierra Madre Fault Zone*, September, 1975 \$6.00
- (c) *Field Trip Guidebook: Geologic Guide to the San Bernardino Mountains, Southern California*, May, 1976 \$6.00
- (d) *Field Trip Guidebook to Santa Catalina Island*, July, 1977 \$6.00
- (e) *Failure of the St. Francis Dam*, Special Publication Commemorating the 50th Anniversary, March, 1978 \$6.50
- (f) *Geologic Guide and Engineering Geology Case Histories, Los Angeles Metropolitan Area*, Association of Engineering Geologists First Annual California Section Conference, May, 1978 \$6.00

Available from: Southern California Section, AEG, c/o Jack Eagen, Moore & Taber, 4530 East La Palma Ave., Anaheim, CA 92807.

2. *Geology, Seismicity, and Environmental Impact*. Special Publication, October, 1973 — 16th Annual AEG Meeting, Hollywood — Edited by Douglas E. Moran, Richard O. Stone, and Charles A. Yelverton (2nd Edition) \$15.95

Available from: University Graphics, 907 West Jefferson Blvd., Los Angeles, California 90007. All checks should be made payable to AEG, Southern California Section.

3. (a) *Seminar on The Importance of the Earth Sciences to the Public Works Official*, 9th Annual Meeting, October, 1973 \$10.00
- (b) *Field Trips Guidebook — 16th Annual Meeting*, October, 1973 \$5.50

Available from: Association of Engineering Geologists, 8310 San Fernando Way, Dallas, Texas 75218.

been selected as the 1979 recipient of AAPG's Distinguished Service Award.

Established by executive action in 1971, the award is presented to a member or members who have distinguished themselves in singular and beneficial long-term service to AAPG.

The award will be presented at the Awards Banquet in the Imperial Ballroom of the Hyatt Regency, Houston, Texas on Monday evening of April 2, 1979.

RECOMMENDED READING

GEOLOGICAL SOCIETY OF AMERICA BULLETIN, vol. 89, no. 12

of the western Snake River Plain, Tectonic implications of the heat flow of the western Snake River Plain, Idaho, by Charles A. Brott, David D. Blackwell and John C. Mitchell. Early and middle Cenozoic drainage and erosion in west-central Arizona, by Richard A. Young and Edwin H. McKee.

Nature and significance of the Inyo thrust fault, eastern California: Discussion and reply. Discussion by George C. Dunne and Rachel M. Gulliver; Reply, by Calvin H. Stevens.

CALIFORNIA GEOLOGY, vol. 31, no. 12, December 1978

Ukiah Earthquake, 25 March 1978, by Tousson. R. Toppozada and Chris H. Cramer.

Coal deposits of California — a selected annotated bibliography compiled by Ricky T. Hildebrand (USGS).

CALIFORNIA DIVISION MINES & GEOLOGY

Preliminary Report 22: Compilation of strong-motion records recovered from the Santa Barbara Earthquake of 13 August 1978, by L. D. Porter, with contributions from the U.S. Geological Survey and the Southern California Edison Co. \$1.00

Special Publications 52: Earthquake catalog of California, January 1, 1900 - December 31, 1974, by Charles R. Real and Tousson R. Toppozada, and David L. Parke. 1978 \$3.00

U. S. GEOLOGICAL SURVEY

Professional Paper 1044-A: Hydrothermal system of Long Valley caldera, California, by M. L. Sorey, R. E. Lewis and F. H. Olmsted \$2.50

(Note: supersedes Open-Filed report 77=347.)

P 1071: Reconstruction of crustal blocks of California on the basis of initial strontium isotopic compositions of Mesozoic granitic rocks, by R. W. Kistler and Z. E. Peterman \$1.30

P 1076-A: World nonbauxite aluminum resources — Alunite, by R. B. Hall \$1.70

B 1440: A gravity study of the northern part of the Arctic National Wildlife Range, Alaska, by B. A. Kososki, H. N. Reiser, C. D. Cavit and R. L. Detterman \$2.50

(Continued on next page)

Recommended Reading (Cont.)

Circular 786: General geology, petroleum appraisal, and nature of environmental hazards eastern Pacific shelf latitude 28° to 38° North, by D. G. Howell, D. S. McCulloch, and J. G. Vedder (29 p.) Free

MAPS

MF 9-33: Geologic map of Twitchell Dam and parts of Santa Maria and Tepusquet Canyon quads, Santa Barbara County, California, by C. A. Hall, Jr. \$1.50

MF 975: Maps showing mineral lands classification and mineral exploration potential in the Needles 1° by 2° quadrangle, California and Arizona, compiled by J. P. Calzia and R. M. Smith \$1.50

MF -99: Reconnaissance geologic map of the Eloy quadrangle, Arizona, by J. O. Bergquist, N. G. Banks and P. M. Blacet 75c

CALIFORNIA DIVISION OF MINES AND GEOLOGY

Special Report 133: Clay mineralogy and slope stability, by Glenn A. Borchardt \$1.00

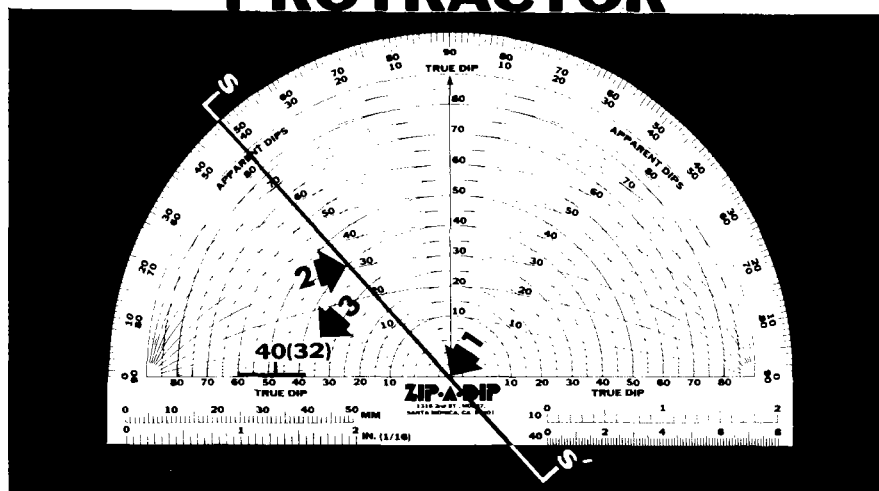
DIVISION OF GEOLOGY AND EARTH RESOURCES, STATE OF WASHINGTON (Olympia, WA 98504)

Information Circular 64: Compilation of earthquake hypocenters in western Washington, 1975, by Robert S. Crosson and Linda Noso, 12 p. 50c

Information Circular 65: Compilation of earthquake hypocenters in western Washington, 1976, by Robert S. Cross and Linda Noso, 13 p. 50c

Reprint 12: Geology of Washington, by Washington Division of Geology and Earth Resources, 51 p. 50c

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NEWSLETTER

Pacific Section A.A.P.G.

P.O. Box 1072

Bakersfield, California 93302



PACIFIC PETROLEUM GEOLOGIST NEWSLETTER

of the Pacific Section

American Association of Petroleum Geologists

VOLUME 33

SUMMER, 1979

NUMBER 2

Pacific Section 1979 Anaheim Convention

This year's AAPG-SEPM-SEG annual meeting in Anaheim was the largest ever in the 54-year history of the Pacific Section. 1164 registrants participated in the "Creative Concepts" program which consisted of 78 fine technical papers, 31 exhibits, 2 field trips and a myriad of extra-curricular activities. The convention was held at the Disneyland Hotel and unofficially opened at the Ice-breaker-Dinner Dance held Wednesday evening; 454 people thoroughly enjoyed this buffet and the two-band dancing option.

Wayne Estill, convention chairman, opened the technical proceedings Thursday morning. The keynote address, on the importance of creative concepts in petroleum exploration, was given by Ken Crandell, a visiting professor at Stanford University. At noon, 367 people attended the joint AAPG-SEPM-SEG luncheon where Michael T. Halbouty spoke on industry and regulatory reasoning. Mr. Halbouty was later interviewed by one of the local television news shows.

On the non-technical side, the conventioners were certainly not at a loss for entertainment. Shouts of "Ole!" were heard from the SEPM faction Thursday when they held a "Fiesta Night" at a local Mexican restaurant. Many others enjoyed an evening cruise around Balboa Bay dancing to live music and supping on plentiful hors d'oeuvres. After the technical program concluded Friday afternoon, 455 registrants enjoyed a crowd-free night at Disneyland, dampened but not dismayed by weather. The hospitality room was well attended by all and provided juice, coffee, tea and danish during morning sessions and held periodic wine servings in the afternoon. Golf and tennis tournaments, and fashion shows rounded out the program.

The final official activities of the convention were the two field trips

held Saturday. One visited Bluebird Canyon, the site of a recent devastating landslide, and the San Onofre Nuclear Power Plant. The other field party trekked to Palos Verdes to explore the Cenozoic geology, stratigraphy and geotechnical problems of the peninsula.

The convention was judged a success on all fronts. The Los Angeles area hereby challenges Bakersfield to equal its effort in 1980!

* * *

NEW OFFICERS

Effective July 1, 1979, the newly elected Pacific Section officers are as follows:

President-Elect, Thomas L. Wright
Chevron Overseas Petroleum

Vice President, Bruce M. Barron
Petroleum Testing Service

Secretary, Robert C. Blaisdell
Chevron Oil U.S.A.

Treasurer, Susan M. Chandler
Getty Oil

Stanford Eschner will assume the duties of President.

FIRST CALL FOR PAPERS

Bakersfield 1980

Pacific Section—AAPG Convention

Papers keyed to "Energy—Challenge of the 80's" are needed for the Pacific Section AAPG sessions of the 1980 convention to be held April 9-11 at the Civic Auditorium in Bakersfield, California. Emphasis will be on exploration, development, petroleum research and technology for each of the four half day sessions in the categories of:

General: Creative exploration and development in the current political and economic climate.

Offshore: New and potential areas in Alaska, Oregon, Washington and California.

Onshore: Recent California, Oregon and Nevada discoveries or new

field development. Potential areas or zones in Alaska, Sacramento and San Joaquin Valleys, L.A. Basin, overthrust belt of Nevada, Western Utah and Western Arizona, oil potential in diatomite and other less common reservoirs.

Technology: Reservoir geology for enhanced recovery, relationship of geology to well completions, coordination of geological and engineering disciplines, fractured reservoirs, hydrocarbon generation, mud logging, drill stem testing and other evaluation methods.

Papers should demonstrate the use of or stimulate creativity in petroleum exploration and development. Approximately 20 papers averaging 20 minutes presentation time will be selected. A 10 minute question and answer period will follow each paper. The deadline for submittal of abstracts is October 15, 1979. Authors will be notified as to acceptance of their abstracts by late November.

Preliminary abstracts of approximately 300 typed words should be submitted to either:

AAPG Program Chairman
Brad Newman
P. O. Box 5237
Bakersfield, CA 93308
(805) 399-2961

Technical Program Coordinator
K. E. Wainwright
P. O. Box 147
Bakersfield, CA 93302
(805) 831-1600

A poster Session is planned if sufficient displays are submitted. Poster displays will be prominently located in the exhibit hall and abstracts published in the technical program. Each poster display will be assembled one full day with the author present for a specified 1½ hour period. Poster sessions offer a unique opportunity for examination by delegates and exchange of ideas between authors and delegates. Submittal of abstracts for Poster Displays should follow the same form and deadlines as listed above with a note that they are for the Poster Session only.

Los Angeles

The L.A. Basin Geological Society continues to meet once each month for luncheon and lecture at Taix's French Restaurant. Despite the loss of our friends at Union Oil to the sunny shores of Ventura (and to the ranks of the Coast Society), LABGS continues to boast the largest registered membership (340) of any of the Pacific Section Societies.

Our recent lectures have included presentations by two AAPG Distinguished Lecturers: Dr. Floyd Sabins, "Exploration Applications of LANDSAT Imagery" and Dr. Donald Secor, "Model for Development of Natural Hydraulic Fractures." Other speakers have included Perry Roehl of California State College at Fullerton and Wayne Estill of American Pacific International. We also winged our way into the realm of the extraterrestrial one noon with a presentation by Michael Sander of the Jet Propulsion Laboratory on the Jupiter Mission.

The June meeting has been postponed until July 2 to accommodate the congressional calendar. U.S. Congressman John Rousselot will address the society on that date on energy matters and the government.

Future plans include a barbecue this summer at the Los Angeles Police Academy and a dinner-dance this fall. LABGS is also formulating plans for the 1930 Spring Field Trip and BBQ. Anyone with ideas, or with a sudden urge to volunteer services should contact President Russ Robinson. CORLA DAVIS, Vice President

NEW DIRECTORIES NOW AVAILABLE

The 1979-1980 edition of the Pacific Section Membership Directory is now available. Copies have been furnished to the following societies for free distribution to their current membership: San Joaquin, Los Angeles Basin, Coast, Northern California, Alaska, the SEPM and the SEG. Those eligible individuals who do not receive their copy from a society can obtain one from the Publications Committee for a \$1.00 handling charge, by contacting:

Kristi Stewart
Tenneco Oil Co.
Post Office Box 9909
Bakersfield, CA 93389
(805) 395-5200

Pacific Section EXECUTIVE COMMITTEE MEETING MAY 9, 1979

CONVENTION REPORT

Total registration as Anaheim was 1164, a record. The financial accounting for the convention is not finished yet but the net should be about \$17,400 with approximately \$6,000 accruing to the Pacific Section AAPG. The Dinner-Dance/Ice-Breaker combination was a success. The exhibits were very successful, principally because geophysical exhibitors were in attendance in addition to the regulars. With regard to the publication of the convention papers, Estill suggested that a standing Pacific Section AAPG committee be created to ensure continuity. The San Joaquin Geological Society is going to publish another volume that will include some of the convention papers.

PUBLICATIONS COMMITTEE

Sales at the convention totalled \$1,900. It was suggested that an effort be made at future conventions to accommodate late Friday sales.

DIRECTORY COMMITTEE

Directories have been furnished to the local societies for distribution to their current membership. The directories were not punched for the old red cover due to the cost (\$1,000). 1700 directories were printed at a cost of about \$7,000 that was offset by \$1,424 in advertising revenue. Printing cost estimates ranged from \$7,000 to \$17,000 and the next directory will be expensive. General discussion: Senteur De Boue is missing from the directory. After the free distribution, the directories will be available from the Publications Committee at a cost of \$5.00.

FIELD TRIPS

(A) Coast Section Spring Field Trip & BBQ: Guidebook is getting very big (118 pages) and costs are going up. Historically, the picnic was an informal social affair, should it remain so? Next year's function will be run by the L.A. Basin Society.

(B) SEPM Fall Field Trip: The next SEPM field trip will take place during the third weekend in October. Headquarters will be King City. Subject will be the Tertiary rocks that are exposed on Hunter Liggett.

KLEINPELL MANUSCRIPTS

The manuscripts are proceeding toward publication. It was moved and approved that Bob Hacker and Ted Off be appointed to an Ad Hoc

Kleinpell Manuscript Committee to follow the process of publication through to the end.

PACIFIC SECTION ROCK

Tom Wright, Ed Karp, and Vern Jones have been appointed to the Ad Hoc Rock Committee that will ensure that a sample of the Buttonbed Sandstone will be sent to the National AAPG for inclusion in the rock garden.

D.O.G. FILES

There will be a public hearing at 10:00 AM on June 8th at the D.O.G., (Room 1131, 1416 Ninth Street, Sacramento) regarding public access to files.

NEW BUSINESS

Fourteen student memberships were provided for those students who worked on the convention; they will be included on the L.A. Basin list.

Non-members who registered at the convention (paying an extra \$10.00) automatically become members for 1979-1980. A list of the names and addresses of these individuals will be sent to membership secretary soon. W. J. M. BAZELEY
Secretary

PACIFIC SECTION — AMERICAN ASSOCIATION PETROLEUM GEOLOGISTS

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Recommended Reading	LUCY E. BIRDSALL (213) 688-2850

NEWSLETTER of the Pacific Section—American Association Petroleum Geologists is published quarterly by the Pacific Section.

Material for publication and requests for previous copies should be addressed to JOHN W. LIDSTROM, TEXACO INC., 3350 WILSHIRE BLVD., L.A., CALIF. 90010.

CHANGE OF ADDRESS, subscription, and membership inquiries should be directed to: MEMBERSHIP SECRETARY, PACIFIC SECTION AAPG, P.O. BOX 1072, BAKERSFIELD, CALIFORNIA 93302.

PUBLICATIONS COMMITTEE: Pacific Section American Association of Petroleum Geologists, P.O. Box 4164, Thousand Oaks, CA 91359.

National AAPG

CARTER UNDER THE GUNN

The President of the United States may be destroying the energy future of the country with misleading, demagogic language, Robert D. Gunn, President of the American Association of Petroleum Geologists, charged. "By introducing a high level of emotionalism into the vital issue of public energy policy, Carter is putting his own political advantage ahead of the best interests of the nation," he said.

"Energy policy can be arrived at logically — but not when it is reduced by the Chief Executive to a shouting match between the 'good guys' who bureaucracy and the 'bad guys' who find oil. All this battling takes time, and puts off the day when we can address seriously the issue of decreasing American dependence on unstable foreign sources of oil. People should be informed, not mislead. Instead of trying to make points with the electorate by attacking energy suppliers, the Carter Administration should be saying flat-out that at least 75 percent of every additional dollar resulting from decontrol will go to the government in the form of taxes. At the same time, the oil producing industry will get 100 percent of the blame for higher fuel prices and inadequate additions to reserves.

"As a scientist, I am disappointed and angered by the President's actions. He is an engineer by training and must have some awareness of scientific disciplines," Gunn said, "but none of that background is detectable in his recent statements.

"President Carter surely knows that for the short- and intermediate-term the United States must rely on oil and natural gas as its prime energy sources. He must know — contrary to what he is saying — that to find and produce the oil and natural gas we need in this country requires more capital to do the job that needs to be done. To be successful in their search for energy, explorationists need not only the cash flow to be derived from decontrol but also access to federal lands on which to explore."

As an independent explorationist, Gunn maintained that he has no brief to defend the major oil companies. But, he said, the American public has to be convinced that "only the largest oil companies have the technological and research capabilities to explore and produce oil and natural gas from the difficult and hostile environments in which we are going to find major fields: offshore, in Alaska, and in the Rocky Mountains.

"Energy is too important to be left to the politicians. Please, turn us loose and let us get on with the job of finding oil. We'll find it, and the American people can only benefit."

AAPG SPEAKER'S KIT UPDATE

For several years now the National AAPG has had a Public Information Committee. The purpose of this committee is to inform the public of the prospects for increased domestic oil and gas production and the attendant benefits and costs.

In 1977, the Committee issued a speaker's kit, in the form of 35 mm. slides with appropriate remarks for each, combined with over 50 pages of additional data. The slides cover various aspects of our nation's energy problems, especially those dealing with supply and demand over the next 25 years.

An update of this kit was issued in March 1979 consisting of 20 new slides and a revised Petroleum Information Package along with EXXON and Shell Oil Company booklets.

A copy of this kit has been sent to the President of each local affiliated geological society. The materials are available to any member speaking before the public on the subject of U.S. energy resources. As AAPG President R. G. Gunn expressed, "Only through public understanding can the political climate cause regulations and laws to be changed to encourage exploration for new energy reserves."

ENERGY EVALUATION OF FEDERAL LANDS VITAL TO NATION'S FUTURE

Access to federal lands to determine the quantity and quality of possible mineral resources is vital to the future of the United States, according to Robert D. Gunn, president of the American Association of Petroleum Geologists.

"For wilderness or scenic reasons we may not wish to develop these energy resources at the present time, but for our future national security we must know what is available to be developed," said Gunn, in testimony before the Senate Committee on Agriculture, Nutrition and Forestry.

Gunn commended the Forest Service's RARE II study recommendations — which would classify major acreage primarily in the Rocky Mountain area — but reminded the Committee that 90 percent of the oil found in the U.S. in the future will be on federal lands.

Classification would determine future status of federal lands. They could be designated as wilderness, multiple use — open in part to exploration and development — or requiring further study.

"It's increasingly important the acreage be made available to the oil and gas industry for judicious exploration and development."

Gunn emphasized that given the unstable situation in the Middle East, it is vital that the United States explore energy potential in every domestic area—both on- and offshore. New exploration technology would allow geologists to evaluate the energy potential of these lands without harming their wilderness qualities.

"We are as concerned as the environmentalists," he added, "and are dedicated to maintaining those areas that are uniquely wilderness in their present state." Preliminary research indicates that most of the oil and gas will be found in areas which are not uniquely wilderness.

In his testimony, Gunn offered the expertise of the AAPG — the largest geoscientific society in the world — to the Senate subcommittee as they begin RARE II determinations.

S.E.P.M. FALL FIELD TRIP

The Pacific Section SEPM is holding its annual field trip October 12-14 this year. The field trip will be a two-day tour through the Santa Lucia Range west of King City, featuring Paleocene to Miocene shallow and deep water deposits and Pleistocene and recent terrestrial deposits. Also included, if possible, will be a visit to some archeological sites.

The field trip chairman, Steve Graham, is soliciting any and all papers relating to the Tertiary and Quaternary of the Coast Ranges and/or Salinas area. The deadline for abstracts is July 20, 1979, and for final manuscripts, September 7, 1979. Submit papers to:

Steve Graham
Chevron, U.S.A.
Exploration Dept., West'n Region
P. O. Box 3862
San Francisco, CA 94119
(415) 894-0308

On Friday night preceding the field trip, SEPM will hold its annual dinner meeting and field trip preview in King City. Additional information and registration sheets will be available in the September SEPM News Letter or may be obtained by contacting Sally Walter, Vice President, SEPM, Box 70344, Los Angeles, CA 90010; (213) 385-0515, Ext. 2248.

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- GB 12—Geol. of the North Channel Islands and Southern Calif. Borderlands (AAPG-SEPM) 1969 ..\$13.50
- GB 13—Geol. and Oilfields of Coastal Areas, Ventura and the Los Angeles Basins, California (AAPG) 1969\$5.00
- GB 17—Guidebook to the Southeastern Rim of the Los Angeles Basin (AAPG-SEPM-SEG) 1970 \$4.00
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- GB 25—West Side Central San Joaquin Valley Field Trip Guidebook (AAPG-SEPM-SEG) 1972\$8.00
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- GB 28—A Profile of Southern Calif. Geology & Seismicity of L.A. Basin (SEG) 1973\$4.00
- GB 29—Metropolitan Oilfields & Their Environmental Impact (AAPG-SEPM-SEG) 1973\$4.50
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- GB 39—Oilfields of Whittier Fault Zone (AAPG-SEG-SEPM) 1975\$3.00
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- GB 43—San Cayetano Fault Field Trip (AAPG) 1977\$5.00
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- GB 2-B—Spring Field Trip. Huasna Basin, San Luis Obispo County (AAPG-SEPM) 1956\$1.75
- GB 2-C—Guidebook, Chico Martinez Creek Area (SJGS) 1958\$1.75
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- GB 3-C—Guidebook to Geol. of Carrizo Plains & San Andreas Fault (AAPG-SEPM-SJGS) 1962\$3.50
- GB 3-D—Spring Field Trip, Devil's Canyon Area (AAPG-SEPM) 1963\$1.00
- GB 3-E—Guidebook to the San Andreas Fault Zone from Temblor Mtns. to Antelope Valley Southern Calif. (AAPG-SEPM-SJGS) 1964\$3.50
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- GB 8—A Tour of the Coastal Oil Fields of the Los Angeles Basin in and adjacent to San Pedro Bay, California (AAPG-SEG-SEPM) 1966\$3.00
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CS 11—San Joaquin Valley—West Side (1 sheet) 1959. From T19S/R15E to T8N/R23W	
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CS 16—Sacramento Valley—No. San Joaquin (1 sheet) 1967. From T3S/R10E to T8N/R1E	
CS 17—San Joaquin Valley Kingsburg—Tejon Hills (1 sheet) 1969. From T16S/R26E to T11N/R18W	
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CS 22—No. Slope Stratigraphic Section (AGS) 1971	\$5.00
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SA 7—Soda Lake to Santiago Creek	
SA 8—Santiago Creek to Sawmill Mtn.	
SA 9—Sawmill Mtn. to Valyermo	
SA 10—Valyermo to Mexican Border	
SA 11—San Andreas Composite Cross Sec. Summary of SA 1-SA 10 on 1 sec.	

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MP 1—San Andreas Fault Bibliography (AAPG) 1962	\$3.00
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MP 27—Energy, Exploration and Politics: Preprints 1978 Annual Meeting AAPG-SEG-SEPM Pacific Section	\$3.50
MP 28—Petroleum Exploration, Economics and Risk Evaluation (S.J.G.S.) 1978	\$5.00

LEGISLATIVE ALERT

This session of the Legislature will consider several bills of particular importance to the geologists in California. Sunset legislation holds a particular charm for politicians at the moment. There are four bills for sunset of regulatory boards and two for accomplishing termination of such boards through budget cuts.

Of the four "sunset" bills, AB 46, SB 43, AB 751 and SB 505, the bill that has moved through the course is AB 46 McCarthy, which is essentially the same as AB 3145 of last year's session. This has passed the Assembly and is with the Governmental Organization Committee of the Senate. Section 9 of AB 46 would repeal the Geologist and Geophysicist Act (Chapter 12.5 of Division 3, Business and Professions Code). Every geologist should inform his State Senator and Assemblyman that this Act is important to the public interest as well as to the profession.

Perhaps a more immediate threat to the administration of the Geologist and Geophysicist Act is the effort of the Director of Consumer Affairs to terminate Boards through budget cuts of funding. There is no tax saving in these cuts. The funds come from the registration fees we have paid. Write to your Assemblyman and urge restoration of funding of the State Board for Geologists and Geophysicists in the budget bill AB 242. Also write your State Senator and urge this restoration in SB 190. In the budget proposal that the Director of Consumer Affairs, Richard Spohn has offered, the funding would be approximately half last year's funding. The aim was to terminate through lack of funds at year end, Dec. 1979. For immediate impact write to the chairman of appropriate committees and copy to the members of the committees. For SB 190, the Chairman of Senate Finance Committee is Senator Albert S. Rodda. For AB 242, the Circuit of Assembly Committees: Assemblyman Daniel Boatright, Chairman Ways and Means Committee; Assemblyman Louis Papan Chairman Rules Committee; Assemblyman Willie Brown, Chairman Revenue and Taxation Committee.

Share your view with your legislators. You will have an impact. The architects did. Every Assemblyman and Senator heard from at least one architect when their Board was up for sunset. That Board is not among those in AB 46! Geologists must be as concerned for their profession! If

the Legislators have only the arguments of the Director of Consumer Affairs the public protection afforded by the Geologist and Geophysicists Act may be unknown. Removal of Section 9 from AB 46 is a possible goal. We must watch for the other sunset bills and examine possible impact. Read these bills. Let your representatives know your position. Whenever the Legislature is in session we must be alert to bills that impact our professional interests. We can expect, especially during the next two or three years, to be required to defend our professional status. The Director of Consumer Affairs has an avowed desire to reduce professional status of Boards in his Department. One proposal in Sacramento has been to scrap registration of Geologists and Geophysicists and register only Engineering Geologists as a sort of "second class citizen" status under the Board for Professional Engineers! Such a move would have no advantage either for Geologists or Professional Engineers!

If you need back-up information on the history of the Geologist and Geophysicist Act to support your discussion with Legislators contact Joe Fusso, President California Section APGS, 2608 Topaz Drive, Novato, CA 94947 or Howard Anderson at b465 Ninth St., Riverside, CA 92501.

Northern California

NCGS members, anxious to add a little spice to their professional lives, broke the long-standing Wednesday-lunch-at-the-Leopard tradition and ventured forth on a Saturday (May 5) field trip through the Coast Range. Speakers on the field trip included L. Patzkowski and R. Blum of P.G.&E. — "Geologic Factors in Design of High Voltage Electrical Transmission Lines"; R. Darrow of Chevron U.S.A. — "Geology of the Livermore Valley and Oilfield"; J. Cummings of Cal. State Hayward — "Geology of the Castlewood Landslide"; A. Goldschmidt of Cal-Trans — "Geological Considerations in the Design of the Dumbarton Bridge"; and R. Nason of the U.S.G.S. — "Surface Creep Along the Hayward Fault."

The final talk of the season is scheduled for June 13. George Gryc of the U.S.G.S. will discuss the latest North Slope developments on the

National Petroleum Reserve (NPRA), Alaska. The talk will be held in conjunction with a 12:00 noon luncheon, at a cost of \$6.50 per person, and will be preceded by an 11:30 social hour (yes, it is possible to squeeze in an hour's worth of socializing in just 30 minutes). Please join us at the Leopard Cafe, 140 Front Street, San Francisco, for what promises to be an enlightening discussion.

Membership in the NCGS has risen to 267, of which 16 are women, and 56 are new members.

The slate of NCGS members who will be serving our Society during the 1979-1980 year have been selected:

President . . . Charles E. Kirschner
Chevron USA

Vice President . . Barry J. Solomon
USGS

Secretary Peter L. Miller
Chevron USA

Treasurer Jerry H. Kopel
Chevron USA

President-Elect . . John T. O'Rourke
Cooper Clark & Associates

Counselor . . . E. Vernon Stephens
USGS

Counselor Herbert J. Sawyer
Consultant

BARRY SOLOMON

A. I. LEVORSEN AWARD

The paper entitled "Pacoima Oil and Gas Field, San Fernando Valley," by Paul Schnurr and Elizabeth Koch of Chevron U.S.A., was judged "Best Paper of the Session" at the AAPG Pacific Section convention in Anaheim, March 14-17, 1979. Elizabeth Koch was chosen as the recipient of the A. I. Levorsen Memorial Award for her fine presentation of the paper and will receive a plaque to be awarded at the 1980 PAAPG Convention in Bakersfield next spring.

Dr. Lowell Redwine chaired the 8-member judging committee. The other judges included Dr. Victor Church, Robert Horton, Dr. John Cooper, Ralph Cahill, John Thomson, Phil Kistler, and Dr. Donald Ziegler.

The A. I. Levorsen Memorial Award was established as the result of contributions from many individuals and societies who wished to contribute to a lasting memorial to Dr. A. I. Levorsen. A plaque is given at the regional meetings of the Sections of the American Association of Petroleum Geologists for the best paper, with particular emphasis on creative thinking toward new ideas in exploration.

Sacramento

The Association has grown to over 200 members in the last few years representing virtually every facet of the oil industry. Dave Finnell, our newly elected Vice President, has kept the group entertained at our weekly luncheon with a variety of technical and political speakers. Recent speakers include Assemblyman Vic Fazio and State Assemblyman Don Rogers, a former SPA member.

Our annual golf tournament and dinner on May 11 at the Yolo Fliers' Club was a big success. Everyone finished the 18 holes intact, and no one has been reported missing. Upcoming events include our Rio Vista vs. The World softball game and barbeque at Elk Grove Park on June 1, and a soon-to-be-announced field trip in the fall.

Don "Old Faithful" Pinnell was re-elected as Treasurer for the Association in spite of a strong move for an audit. As usual, Don has led the movement to support the oil industry-sponsored R. M. Pyles' Boys Camp. We are proud of sending a handful of boys to the camp this summer.

The newly elected Board of Directors is comprised of the following members: Monte Doris, Chairman; Fred Harris, Charles Fry, Ben Cahill and Bill Rentz.

Our association started years ago as a scout meeting. Somehow it has managed to stay afloat all these years without evolving much. It's still a good place to meet old friends and find out what's going on in Northern California. Join us on any Wednesday at the "Steak and Ale" restaurant, Franklin Blvd. and Florin Road in South Sacramento, at noon.

MONTE DORIS, President

Coast

The Coastal Area welcomes back Roger Hubbell of Conoco. The Conoco offices are now staffed with, in addition to Roger and Bob Beringer, Geologists Kevin Lant and Thora Johannson. Chuck Lake will be the geophysicist for the group. Conoco's offices are located at 290 Maple Court, Suite 284, Ventura. Welcome back Roger!!!

Jim Sanders of Getty Oil recently took early retirement and has joined the ranks of the consulting fraternity.

Effective July 1, 1979, the new Coast officers are as follows: President, Gary Bell, Consultant; Vice President, Greg Blake, Union Oil; Secretary, Gary Nulty, ARGO; Treasurer, Joan Winterer, Union.

COAST SPRING FIELD TRIP

From all indications, the Pacific Section spring sojourn was a roaring success in all departments.

Between 50 and 60 people entered the golf tournament, and from the way Don Padick was giving out super-sized trophies it appeared that everybody won something.

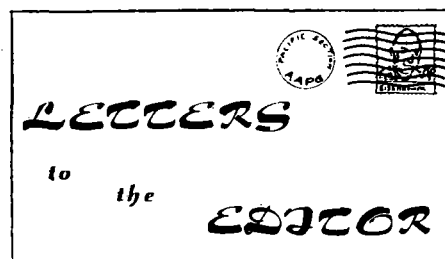
The field trip around Lake Casitas was led by Gary Bell, Dick Berger, Eugene Fritsche and Jim Estes and examined both structural settings and sedimentary features. It was attended by 132 people and from comments heard was thoroughly enjoyed by all those present.

According to Bill Reay, somewhere between 250 and 280 people showed up for the barbecue, ate heartily, consuming all the vittles that had been prepared.

Old acquaintances were renewed and new acquaintances made — and a good time was had by all!!!!

See you all next year!!!

G. C. BROWN
President



IN DEFENSE OF REGISTRATION BOARD . . .

The Governor, the Speaker of the Assembly, and the Director of the Department of Consumer Affairs have all decided that many of the regulatory boards (licensing boards) should be "sunsetted" or should be phased out. This is an attempt to show economy and efficiency in government. We all agree if an agency, board, or commission is no longer providing a service to the public, it should be eliminated or should undergo what is referred to as a sunset process. However, the Board for Registration of Geologists and Geophysicists is providing a very necessary function at the present time and that, of course, is to provide a set of standards or guidelines for the profession as well as establish the criteria for determining who, by experience and education, has been sufficiently trained to perform the

professional services of a geologist. Those of us who have been working in the area of public safety and public welfare, as related to geology, have recognized for a long time that quality control is essential if there is going to be any assurance of capability and performance on the part of professionals.

Among the various points of criticism that have been brought up is that the great majority of those licensed were grandfathered in and "that those who were grandfathered in did not have to meet the stringent requirements that are now required of the younger people that are now taking the exam." Those who were grandfathered in had to meet the education and the experience requirements that included a degree in geology whereas, at the present time, only 30 units of geology is required. As far as the work experience, the requirements are the same. In talking to one of the high-ranking officials in Consumer Affairs, the statement was made that when "you were grandfathered in, all you had to do was say, 'I am a geologist' and you were automatically registered." Those of you who did go through the grandfathering process know that is incorrect. The majority of us had already passed one or more equivalent exams and had much more experience than is now required for the young geologists.

Another often quoted complaint is that the Board has been persuing the unlicensed geologists who are writing reports and performing geology but have not taken to task those who are doing substandard or inadequate work. That factor, we believe, has been corrected as a result of the Board mailing to all licensed geologists guidelines for reports which establish state-of-the-art as of January, 1979 and reports which fall below those standards will be reviewed for inadequacy or substandard work and action will be put into effect by the board. Whether or not the charge has any merit, we believe the Board has not only compensated for whatever condition might have existed, but also we have established a state-of-the-art set of guidelines which, to date, no other profession has been able to accomplish.

Another complaint has been that the exams are too difficult inasmuch as approximately 50% passed each time. A point of interest which has been overlooked by the administration is that there appears to be more

(Continued on Page 8)

REGISTRATION BOARD (Cont.)*(Continued From Page 7)*

geologists passing the exam than there are attorneys passing the bar exam. The complaint by the Governor is that the exam is too rigid and is actually acting as a restriction in keeping the capable young people out of the profession. We do not believe this is the case. The exam is about the equivalency of the state exam for Associate Geologist or somewhere in the same proximity as the G.S.-7 for the U.S.G.S. We have found, in scanning the exams, that where most of those who did poorly on this exam is in the area of very basic geology such as how to prepare a cross-section, how to determine which way a stream flows, and how to work a 3-point problem. The Board is concerned about what appears to be a problem in the educational process more so than the exam process. The April meeting of the Board was held in an attempt to bring together the department chairman of the various schools in California to determine if if some effort can be made on the part of the universities to prepare or at least inform the students as to what may be expected as far as examination questions or basic information they should know.

When we give consideration to the needs of regulatory control and the establishment of the profession of geology as far as one that is responsible and should be given its proper position in the professional arena, we can think of the Teton Dam where

geologic data was either pigeon-holed or bypassed by other professions. We can reflect back on the Auburn Dam situation where geologic data was not really given proper consideration in engineering design until it was raised and became an embarrassing issue and then reluctantly established that there were geologic problems. Thus, there is a need for geology being in the proper perspective.

If you are concerned and have an interest to provide some supportive effort in retaining registration and in retaining a true position for geologists in the professional world, it is requested that you write to your local State Senator and Assemblyman/Assemblywoman. If you have any further questions regarding registration or the various sunset bills, please feel free to contact Jim Slosson (213) 787-4555, or John Wolfe (916) 445-1920 of the State Licensing Board, or Bruce Baron (714) 839-7958 or Don Hallinger (213) 689-2975 who are serving on the Examination Committee and Professional Affairs Committee, respectively, for the Board of Registration.

JAMES E. SLOSSON

RECOMMENDED READING

CALIFORNIA GEOLOGY, vol. 32, no. 4, April 1979

Coastline Erosion, Santa Cruz County, by Gary B. Griggs and Rogers E. Johnson

Unique record for forecast earthquake.

Natural outdoor volcano lab in Alaska

OREGON GEOLOGY (formerly The ORE BIN), vol. 41, no. 3, March 1979

Geothermal exploration in Oregon in 1978, by J. F. Riccio

Oil and gas exploration in Oregon in 1978, by V. C. Newton, Jr.

OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, PORTLAND, ORE.

Special Paper 3; Rock resources of Clackamas, Columbia, Multnomah and Washington Counties, by Jerry Gray, Garwood Allen and Gregory Mack \$7.00

MAP GMS-8: Complete Bouguer gravity anomaly map, Cascade Mountain Range, Central Oregon \$3.00

MAP GMS-9: Total field aeromagnetic anomaly map, Cascade Range, Central Oregon \$3.00

Definition of Geophysicist?

A "geophysicist" is a person who passes as an exacting expert on the basis of being able to turn out with prolific fortitude infinite strings of incomprehensible formulas calculated with micromatic precision from vague assumptions which are based on debatable figures taken from inconclusive experiments carried out with instruments of problematic accuracy by persons of doubtful reliability and questionable mentality for the avowed purpose of annoying and confounding a hopelessly chimerical group of fanatics known as geologists.

— Anonymous
Circa — 1979

NEWSLETTER

Pacific Section A.A.P.G.

P.O. Box 1072

Bakersfield, California 93302



PACIFIC PETROLEUM GEOLOGIST NEWSLETTER

of the Pacific Section
American Association of Petroleum Geologists

VOLUME 33

FALL, 1979

NUMBER 3

Pacific Section SEPM FALL FIELD TRIP

This year's fall field trip will be October 5, 6 and 7 and will visit the Salinas Valley and Santa Lucia Range to look at Paleocene to Recent geologic and geomorphic features. Headquarters for the trip will be the fairgrounds in King City in the Salinas Valley. The field trip leaders and contributors to the guidebook have prepared much new information about the region which should be interesting to all geologists.

Another great barbeque is planned for the Friday night preceding the field trip. Happy Hour is at 5:00 with dinner about 7:00. After dinner there will be a *brief* business meeting followed by the field trip preview talk. These activities will be held in the cafeteria at the county fairgrounds in King City.

Saturday morning we will meet again at the fairgrounds and board buses for the field trip which will head west and north from King City, through the Hunter Liggett Military Reservation to Los Padres National Forest. The stops will include a general overview of the base Paleocene through top Miocene section and closer inspection of the exposed littoral to deep-sea channel and fan deposits. The stops include some short to moderate walks (up to 3 miles) over trails and gravel roads — good walking shoes or boots are recommended. Lunch will be at Indian Ranch Ranger Station and will be furnished and paid for by SEPM.

Sunday's field trip will be by personal car and will examine the Pleistocene and Recent geology and geomorphology along the east side of Salinas Valley. Included will be examples of soil horizons, fault exposures, alluvial fans and drainage valleys. The trip

will conclude at a Pliocene bioherm (about 2:00 in the afternoon).

Cost of the Friday night dinner is \$6.00 and the field trip, \$7.00. Guidebooks will cost between \$3.00 and \$5.00 and will be available on Friday night or Saturday morning at the field trip.

Pre-registration is strongly solicited so that we'll know how many people to plan for. For further information, contact Sally Walter, Texaco, Inc., 3350 Wilshire Blvd., Los Angeles, CA 90007. (213) 385-0515. Mail pre-registrations to: Treasurer, Pacific Section SEPM, P.O. Box 70344, Ambassador Station, Los Angeles, CA 90007.

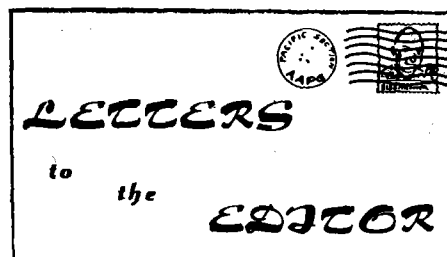
LEGISLATION

A pair of State Assemblymen, Bates (D-Oakland) and Levine (D-Los Angeles), have introduced a bill to create a public oil and gas corporation. This is similar to the bill by Charles Warren in 1979 which was lost in committee. Warren now has some energy responsibilities with the Carter Administration.

The bill would create a corporation to engage in the production and development of oil and gas as well as purchase and sell natural and synthetic fuels. It would have first refusal rights to any State lands but could also lease private land. In addition, this monster could build refineries and distribution facilities. Sixty percent of net income would be transferred to the general fund.

The authors sponsored this on their own and have no known outside support. Levine is chairman of the Sub Committee on Energy. Our colleague, Don Rogers, is also on this committee and is, needless to say, strongly opposed to the bill.

It is expected that this bill will be ultimately lost in committee but not until they have gotten the maximum publicity.



Dr. James E. Slosson:

I was interested and a little surprised by your "letter to the Editor," Pacific Section Newsletter, Volume 33, Summer, 1979. I was very interested because of my own rather frustrating attempt to achieve registration in California and surprised that the Board now needs to take public defense of its regulatory policies. Your letter smacks of the "have-have not" split which existed in the industry with respect to core data prior to the offshore sales. Those who have registration are good guys and those who don't may just be charlatans.

I believe in controlling professional practice regardless of the field of endeavor. However, like medicine or engineering, modern professions are extremely diverse, specialized and increasingly complex. We're talking about the complexities far beyond the basic principles which found the science. I took your test in 1974. I don't recall, but I believe I was within approximately 13 points of a passing score. I erred drastically in the areas dealing with hydrodynamics and in the identification of uses of economic minerals. I never had any training in school or industry in hydrology and frankly, my recall failed me on the minerals.

My situation at the time was Assistant General Manager of BBN Geomarine Services Incorporated, Western Region, Oxnard, California. I conceived, with others, managed, marketed and operated several multi-

(Continued on Page 2)

(Continued from Page 1)

disciplinary high resolution geophysical programs offshore California and Alaska. These programs, basic data and interpretations, were purchased by every major oil company in California and the USGS. These programs and their interpretations were instrumental in the development of nearly each one of those companies' exploratory strategy offshore California. Our programs made a contribution to geologic knowledge and the economy of California. Not one person in our California office at the time was registered. When I took the test I was involved in three programs offshore, was actively marketing those projects in eight major cities and had not taken such a test in four years.

Today I'm Division Geologist of a major oil company. I probably still couldn't pass your test. Yet for the past 10 years I've practiced geology from Alaska, and California to the Rockies. My name would be recognized by Middle Management of most any major oil company you know of, as well as by the staffs of the USGS in Anchorage, Menlo Park and Los Angeles. As far as I know my geologic capability has never been questioned and my ethic is beyond reproach. Funny the Board, as per your letter, doesn't mention ethic. You imply that only those geologists supportive of registration are members of the professional world.

Honestly, how many of your California registered geologists could pass the test next week? All of a sudden you would be minus 50% of your professionals. I believe you fellows need to rethink the objectives of registration. It's a worthy goal, but not at the expense of practicing ethical professionals.

G. M. Simmons
APGS 3731

NEXT DEADLINE

PPG NEWSLETTER

November 15, 1979

GASOLINE PRICES: SOME COMPARISONS

Q. How much has the price of gasoline risen with respect to other commodities?

A. The chart below indicates that gasoline prices have risen less than have most food prices over the last 40 years. And today's average wage earner has to work only seven minutes to purchase a gallon of gas, 12 minutes less than his 1939 counterpart.

A COMPARISON BETWEEN FOOD AND GASOLINE PRICES AND WAGES FOR THE YEARS 1939, 1959 AND 1979

Item	1939	1959	1979 (During March)	% Increase 1939-1979
Bread (per lb. loaf)	\$.08	\$.20	\$.41	412%
Eggs (per doz.)	.33	.53	.93	182%
Milk (per two ½ gals.)	.44	.96	1.90	332%
Butter (per lb.)	.33	.75	1.56	373%
Lettuce (size 24 head)	.09	.18	.77	755%
Gasoline (per gal.)*	.19	.30	.73	284%
Minimum hourly wage	.25	1.00	2.90	1,060%
Average weekly wage	\$23.64	\$88.26	\$266.24	1,027%

Food prices and wages: Bureau of Labor Statistics (March 1979 food prices derived from June 1979 BLS index).

Gasoline prices: *Platt's/Lundberg Report*.

* Average price for regular grade leaded gasoline includes total state and federal tax of \$.05 (1939), \$.09 (1959) and \$.12 (1979). Unleaded gasoline, not generally marketed until the mid-1970s, costs, on average, about \$.05 more.

Recent increases in gasoline prices are primarily the result of:

- the latest round of OPEC price rises (the basic OPEC price was raised by more than 9 percent effective April 1, 1979), plus added "surcharges" imposed by some foreign producers on oil sold under long-term contracts; and
- changes in federal regulations effective March 1979, which permit refiners to pass through in gasoline prices more of the added costs involved in producing gasoline.

NEW OFFICERS Pacific Section AAPG

Effective July 1, 1979

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Occidental Petroleum
President-Elect: Thomas L. Wright
Chevron Overseas Petroleum
Vice-President: James R. Weddle
Consulting Geologist-Bakersfield
Secretary: Robert C. Blaisdell
Chevron Oil U.S.A.
Treasurer: Susan M. Chandler
Getty Oil

"erratum: We apologize for reporting Bruce Barron as Vice President instead of Jim Weddle in our last issue. Sorry Bruce and Jim please accept our apology as we have been running a few bricks short of a full load lately — Editor"

CALIFORNIA WELL SAMPLE REPOSITORY

The California Well Sample Repository has available the following publications:

Stevens Sand Open House Publication No. 1 — \$1.00
Winters Sand Open House Publication No. 2 & Supplement — \$2.00

2nd Edition of Catalog of Well Samples — Free

Copies of the above may be obtained by request to:

California State College Bakersfield, Well Sample Repository, 9001 Stockdale Hwy., Bakersfield, Ca. 93309 (805) 833-2324

Further announcements will follow regarding a Fall Open House and short course on turbidites at the California Well Sample Repository.

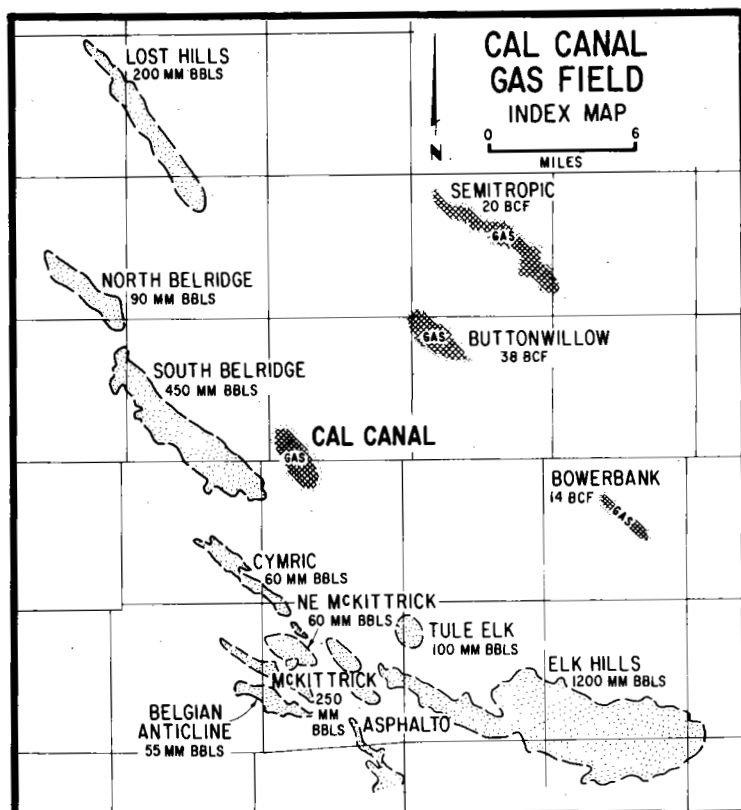
NEW ADDRESS

Bruce Barron
4211 W. First St., No. 106
Santa Ana, Calif. 92703

Strata Analysts Group was formed by Bruce Barron (Southern California) and Bert Nunn (Northern California) the first of 1979, specializing in all phases of exploration and production.

Southern California Office:
2201 W. Marty Lane
Santa Ana, Calif. 92706

Northern California Office
P.O. Box 13
Newcastle, Calif. 95658



PACIFIC SECTION AAPG FIELD SUMMARIES

CAL CANAL FIELD D. F. Collins

DISCOVERY WELL: Oxy-Chevron Cal Canal No. 1,
Sec. 31 T28S, R22E, MDB&M, Kern County, CA.
TD 11,825'.

DISCOVERY DATE: Sept., 1977.

INITIAL PRODUCTION: 6000 Mcf gas per day
plus 2697 barrels 41° condensate per day.

PRODUCTIVE FORMATION: Upper Miocene Ste-
vens sandstone.

TRAP: Anticline

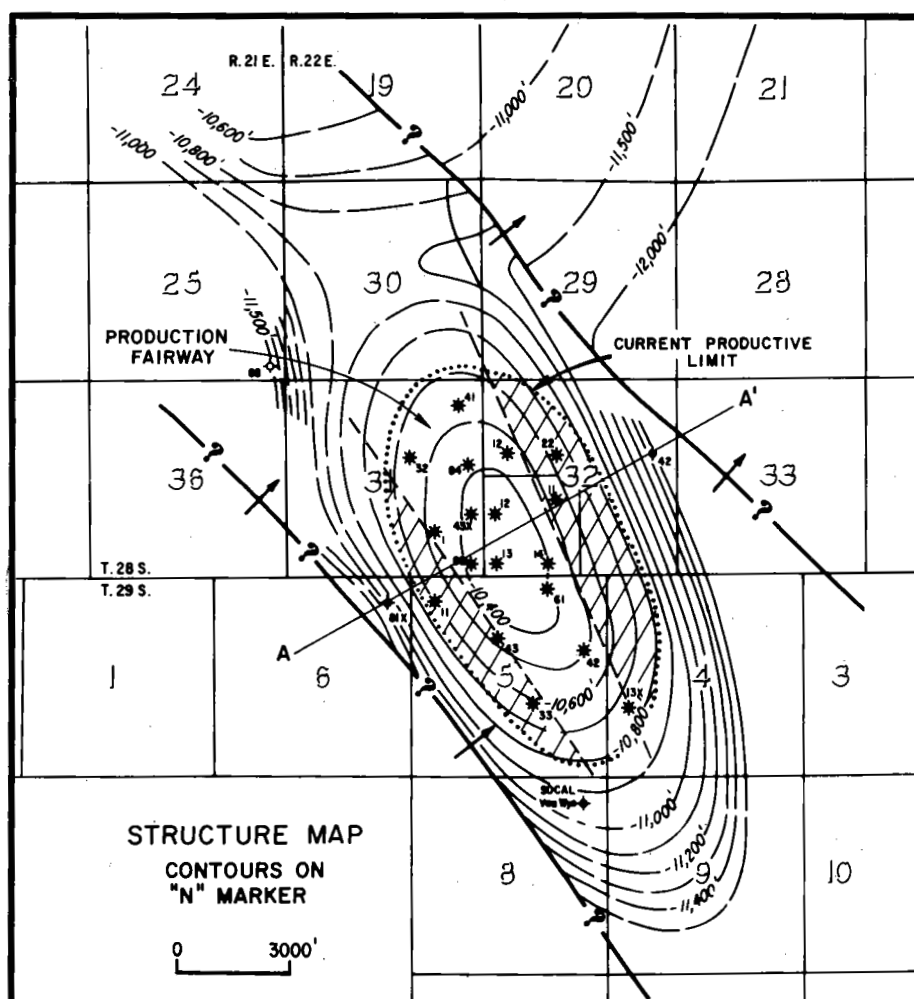
AVERAGE WELL DEPTH: 11,800'

1978 FIELD PRODUCTION: 2.48 Bfc gas and
555,000 barrels condensate and 85,600 barrels
water.

TOTAL WELLS DRILLED: 20

PRODUCING AS OF 6-79: 17

PROVED ACREAGE: 800 ± acres

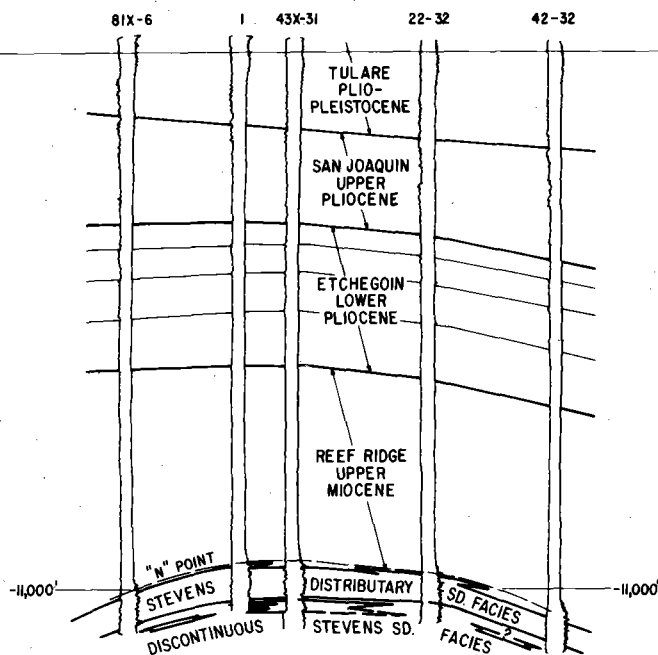


STRUCTURE: The Cal Canal domal closure evident at the upper Miocene Stevens level appears to be an older feature situated on the south plunge of the later folded Lost Hills Anticline. Structural closure consists of approximately 500 feet; additional closure is provided by stratigraphic trapping.

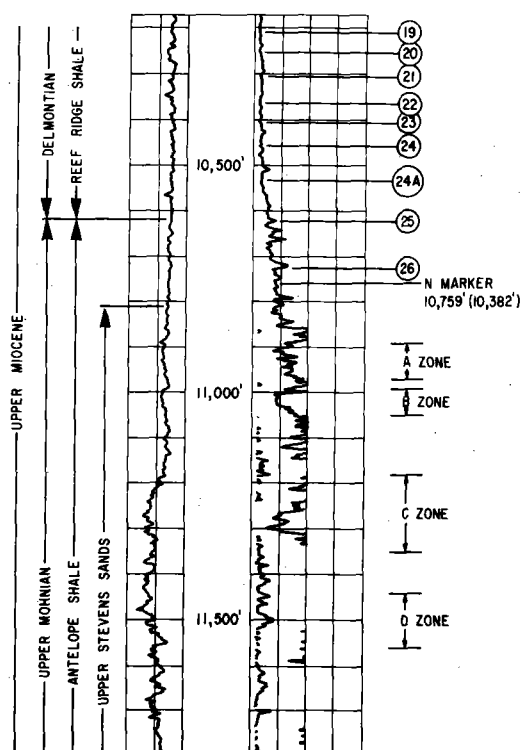
STRATIGRAPHY: The discontinuous thin sandstones of the upper Miocene Stevens interval are indicative of a distributive sand system within the lower-outer submarine fan sequence, ten miles northwest of the thick channel sands in the Stevens at Tule Elk. The reservoir units scattered throughout the upper Stevens are primarily concentrated in the upper 700-800 feet. The average well has approximately 60 net feet of pay. Sandstones are gray-brown, very fine to medium with occasional coarse grit intervals, angular, poorly sorted, feldspathic, well indurated, cemented by cryptocrystalline matrix of quartz and authigenic illite. Occasional megapores occur where large feldspar grains have been dissolved, however these intervals are poorly connected and do not constitute an effective reservoir.

RESERVOIR: Analysis from logs and cores indicate an average porosity of 10 to 11 percent, permeability ranging from .1 to .5 md., water saturation of 60 percent. The average 60 feet of net

A STRUCTURE SECTION A'



TYPE LOG



pay is concentrated in the upper few hundred feet of the gross 700-800 feet of the interval which is commonly completed with slotted liner. Initial reservoir pressures were 7350 psi, temperature 290° F. Fluid analysis clearly indicates that the Cal Canal accumulation is in the reservoir in a gaseous state and is a retrograde gas condensate reservoir with a dew point pressure of about 5900 pounds of maximum liquid condensation of about 42 percent of the hydrocarbon fluid space at 4000 pounds. The apparent early intercommunication from well to well on about 20 acre spacing suggests the possibility of some fracturing within the reservoir. The recognition of the gas reservoir will mandate a development program of more appropriate spacing.

PRODUCTION: Oxy and Chevron have drilled 16 wells: Getty has drilled 4. Seventeen are currently producing. At last report (12-31-78) the field produced at the daily rate of 7856 Mcf and 2288 barrels of condensate from 14 wells. Estimated field total cumulative production to June, 1979, is 4 billion cubic feet of gas and 1.1 million barrels of condensate. Completion practice is to set 7 inch casing at top of the Stevens, drill through the Stevens with either a lignosulfonate mud or with calcium bromide and run slotted liner to total depth. wells are typically acidized and alcohol washed when drilled with calcium bromide.

CONCLUSION: This is the northern-most of the twenty-six Stevens fields in the southern portion of the San Joaquin basin. It differs from the other fields in that high reservoir temperatures and pressure are encountered which are occasioned by either or both high pore fluid pressure engendered by indigenous generation of hydrocarbons or the involvement of the earlier structural element compressed by the late Plio-Pleistocene tectonism. Because of the low quality of reservoir, Cal Canal would not be profitable if it were a typical Stevens oil field.

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Pacific Coast Paleogeography Symposium, 3



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NEWSLETTER of the Pacific Section—American Association Petroleum Geologists is published quarterly by the Pacific Section.

Material for publication and requests for previous copies should be addressed to JOHN W. LIDSTROM, TEXACO INC., 3350 WILSHIRE BLVD., L.A., CALIF. 90010.

CHANGE OF ADDRESS, subscription, and membership inquiries should be directed to: MEMBERSHIP SECRETARY, PACIFIC SECTION AAPG, P.O. BOX 1072, BAKERSFIELD, CALIFORNIA 93302.

PUBLICATIONS COMMITTEE: Pacific Section American Association of Petroleum Geologists, P.O. Box 4164, Thousand Oaks, CA 91359.

ANNUAL SPE CONVENTION

The controversial accounting issue affecting the petroleum industry's income statements and balance sheets will be addressed in a special panel session Sept. 26 at the Annual Technical Conference and Exhibition of the Society of Petroleum Engineers (SPE) in Las Vegas.

The Securities and Exchange Commission's Reserve Recognition Accounting (RRA), slated for implementation after Dec. 26, 1980, is of considerable concern for oil and natural gas exploration and producing companies, accountants, and petroleum engineers. The engineers will be called on for the technical expertise to decipher the complex element of what constitutes a proven reserve.

The results of a year-long effort by SPE to draft a voluntary standard for the reserve estimating process will be presented in the session by the chairman of the Oil and Gas Reserves Committee, Arlen L. Edgar, an independent oil man from Midland, Texas. A question and answer session will follow the committee's report.

Other session panelists include SPE President Charles L. Bare, moderator; James L. Russell, Securities and Exchange Commission (SEC) accounting fellow, who will outline concepts behind RRA; B. P. Huddleston, member of SEC's Advisory Committee on Oil and Gas Activities and an advisor to API committee on RRA;

Alan May, Jr. of Coopers and Lybrand, chairman of the American Institute of Certified Public Accountants' Oil and Gas Reserve Data Committee; and Richard Adkerson of Arthur Anderson and Co., former SEC accounting fellow originally involved with the RRA concept.

"The discovery of oil and gas is the most significant event in exploration, development, and production activities," stated the SEC's official announcement on RRA, which declared that the value of newly discovered petroleum reserves should be recognized annually on the balance sheet and income statements of oil and natural gas exploration and producing companies.

Until now, companies, in their annual reports to stockholders, have reported unaudited reserves in barrels of oil or cubic feet of natural gas, as opposed to dollars. Under the SEC ruling, companies will be required to estimate the amount of reserves discovered, affix a current oil and gas price to it, subtract current costs (discounted at the 10 percent annual rate mandated by the SEC), and report a factor of that amount as income in each of the years estimated to bring the reserves to the surface.

"The one thing that makes it complex," said Clarence Sampson, chief accountant for the SEC, "is that oil and gas are underground and you cannot climb down there and look at it or touch it."

NEWSLETTER

Pacific Section A.A.P.G.

P.O. Box 1072

Bakersfield, California 93302



PACIFIC PETROLEUM GEOLOGIST NEWSLETTER

of the Pacific Section
American Association of Petroleum Geologists

VOLUME 34

WINTER, 1979-80

NUMBER 4

PRESIDENT'S CORNER...

For the 1979-1980 term, your Executive Committee has undertaken, as its primary shared responsibility, what we hope will be an improvement in the format and content of the *Newsletter*. Further, we have voted to increase the number of publications from four to six per year. As we proceed in this endeavor, we welcome suggestions, constructive criticism, and contributions for inclusion in future editions.

LIDSTROM GOES TO HOUSTON ...

Long time PPG editor John Lidstrom was recently promoted to the post of Division Geologist in Texaco's Houston office. John served the Pacific Section AAPG as editor from 1973 to 1979. With his transfer John relinquished his duties to John Randall of Gulf Oil in Bakersfield.

The Pacific Section would like to thank J. L. for a job well done and wish him well in surviving the humid climate of Houston. We know that he will contribute much to the Gulf Coast Section.

Corla Davis

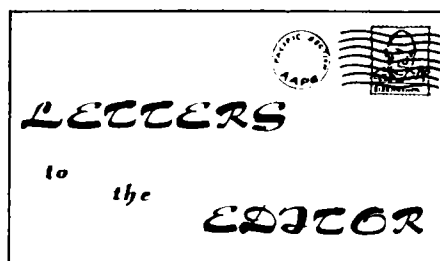
LEGISLATION

Aside from the President's energy legislation that changes from day to day as Congress debates the wisdom of confiscating all or only part of oil industry profits, Bill Press, an ex-aide to Governor Brown, has started an Initiative petition to do the same at the State level.

The Press Initiative levies a tax of 10 percent, which is in addition to the present 9 percent tax, on the business income of companies in California whose principal activity is the obtaining, processing, distributing or marketing of oil, gas, coal, or uranium. Businesses with worldwide income under \$5 million are exempt. The exemption phases out between \$5 and \$10 million. The proposal includes a 50 percent investment tax credit allowance against the

tax for California investments which increase oil production or refining of California crude. The credit is limited to 50% of the tax. Revenues are to be used to fund bus and rail service for Californians, and the development of alternative transportation fuels. According to the measure, the tax may not be passed on to the consumer.

Mr. Press plans to have this measure on the June, 1980 ballot. To do this he will need to garner 346,000 signatures. Given the current anti-oil mood, he may easily reach his goal.



Salinas Valley Explorationists:

As the sole resident petroleum geologist in the capital city of the Salinian Block, King City, I feel duty bound to comment on the 1979 Pacific Section SEPM Field Trip. It happened on my turf and I was delighted to go along as a spectator. Hopefully others will review the Guidebook and the Field Trip. I'd like to comment on what was missing, the "E" in S.E.P.M. — Economics.

It was extremely fitting that the 1963 Pacific Section AAPG/SEPM Spring Field Trip Guidebook has been reprinted and became available during the 1979 Field Trip. Very little needs to be added or changed to make the 1963 Guidebook as useful a guide to prospecting for new oil in the Salinas Basin today as it was then. It's almost as if the Basin had gone into a state of suspended animation about 1965 and hasn't awakened yet. Thus the lack of reference to oil and oil finding in the 1979 Guidebook is perhaps no great loss.

Appropriately 1963 was the fourth busiest exploratory drilling year of the history of the Salinas Basin. 25 wildcats

were drilled or about 5 percent of the 500 or so exploratory holes drilled for which we have any kind of record. Also by 1963 all the presently producing or producible oil had been discovered. Since 1970 the Basin has averaged about 5 wildcats per year. Remember too that throughout this period of exploratory vacuum San Ardo Field pumped serenely along producing about one-half percent per year each year of the nearly 2 billion barrels of oil originally in place. Contrast the 15 year vacuum with an average of 20 wildcats per year from 1948 through 1964. During that earlier 17 year period 2/3 of all the exploratory drilling in the Basin was conducted.

Obviously the Salinas Basin has been in an exploratory slump through the seventies. Certainly economics kept oil finders away for a long period. Lack of more pipeline capabilities, trucking charges, lack of buyers for low gravity crude — these factors all took their toll. However, now independent refiners are buying and trucking out every barrel they can get with prices approaching \$20 a barrel. Thus poor economics no longer exist.

Can we find new oil in the Salinas Basin? I'm here to tell you "Yes" resoundingly. Prospects abound for shoreline and shale edge traps, oil entrapped in early structures, bar sands, deltaic sequences, and submarine channels all within the 1000 to 5000 foot depth range. I've seen producible gas in turbidites and recovered light oil from fractured shales. These are all targets worth pursuing by the independents. The majors are busy leasing and shooting in the deeper portions of the Basin and the best of Irish luck to them. Come on in folks, the oil's fine.

Yours for more grease,
Edward A. Gribi, Jr.
51280 Pine Canyon Road
King City, Ca. 93930

**NEXT DEADLINE
PPG NEWSLETTER
FEBRUARY 7, 1980**

THE LEGEND OF ANNIE MUSHRUSH

One day in 1937, the legend goes, a farmer's wife named Annie Mushrush knelt in prayer in the front room of her farm home several miles west of Wasco, a small town near the south end of California's great central valley. The mortgage on the farm was about to be foreclosed. The family had exhausted every other source of help.

She heard a step on the porch. She opened the door and saw a man who said, "I work for Standard Oil Company of California. We want to lease your land to search for oil. I am prepared to give you the first payment today."

Mrs. Mushrush called her husband in from the barn and they discussed the offer briefly, then climbed into the landman's car and drove to the county offices at Bakersfield. There the landman produced a telegram from his Home Office which located the desired property. He prepared the lease for signature, took the landowners to the bank and paid off the mortgage, then returned them home.

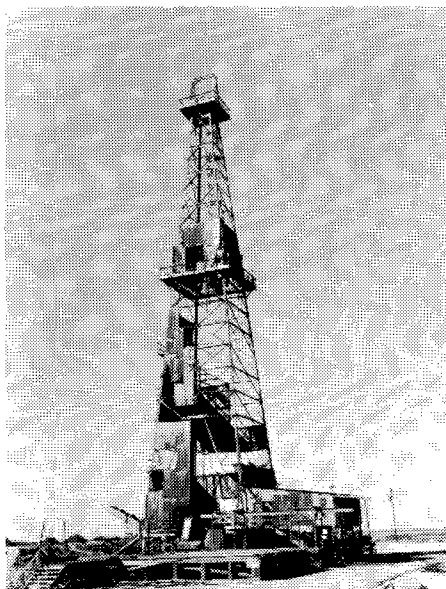
Back at the landman's office, another telegram awaited, stating that the first had described the wrong range. The correct location was six miles away. The landman, in signing up the Mushrush farm, had leased the wrong land.

Like most legends, the Legend of Annie Mushrush, though widely repeated, was not entirely accurate. Actually, there was no mortgage. There was no barn. Mr. Mushrush had passed away some five years before. Mrs. Mushrush was living comfortably in Pasadena. But the last part of the legend was true. The Mushrush land had been leased by mistake.

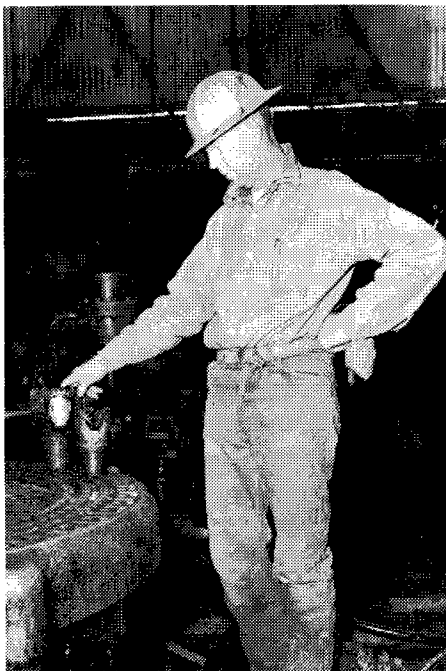
The story was to have a happy ending. The Mushrush farm became part of the Wasco oil field, which produced five million barrels of high gravity oil before the field's last well was abandoned in 1960.

Thanks to one of the Mushrush wells, the field was to attain a degree of fame. In 1949, Standard brought in Mushrush No. 5 flowing 352 barrels a day of 40.4-gravity oil, cutting 2.2 percent, through an 18/64-inch bean from 160 feet of perforations in the interval from 15,250 to 15,530 feet in the Eocene zone. The well was, at the time, the deepest producing oil well in the world.

BILL RINTOUL



Standard's Mushrush No. 5 ... back in 1949 when the well brought fame to the Wasco field.



Standard driller with bits that helped penetrate the Eocene beneath the Mushrush farm at Wasco.

WELL SAMPLE REPOSITORY ANNOUNCES ENDOWMENT FUND, ACQUISITION OF MATERIALS

The California Well Sample Repository at Cal State Bakersfield has recently acquired a major addition of materials as a donation from Exxon. Over 2,000 boxes of ditch samples and cores which have been collected by Exxon from hundreds of wells throughout California are now at the Repository and being catalogued and prepared for permanent shelving. This represents only about half of the material Exxon is offering to the Repository. Lack of both temporary storage space and funds for workers to complete the filing of materials already at the Repository will postpone acquisition of the remaining Exxon donation.

Brochures announcing the Endowment Fund Campaign were mailed late in October to the Pacific Coast Section Members of the AAPG. Initial response has been encouraging, but the Advisory Board hopes that those of you who have not yet sent in your donation will do so as soon as possible. To date contributions or commitments have been received from the following: Tenneco Oil Co., Getty Oil Co., The Mitchel Company, San Joaquin Geological Society, SEPM, Pacific Section—AAPG, Exploration Logging, Argonaut Oil & Gas, Jim Weddle, John Marsellos, B. G. Winter, Lowell Redwine, Robert Horton, Vic Church, Ernest Rennie, Ed Stinemeyer, William Elliott, Mrs. Dallas Hannah, Art Hawley, Geo-Logic, Inc. Watch this column in the next *Newsletter* to see your name included in the donors — and urge your geologist friends to join you! This is not charity, but an investment in the future of California's oil industry. It is **your** facility — the only one in California open to **all** geologists.

CGG OPENS CALIF. OFFICE

CGG, a geophysical firm with headquarters in Denver, Colorado, announces the opening of a new regional office in Westlake Village, California. The new office will be operations base for CGG's four Pacific Coast Area crews, capable of conducting both conventional geophysical surveys and programs requiring special acquisition techniques. Norbert Blot, Pacific Coast Area Manager, heads the new office, located at 650 Hampshire Road, Suite 200, Westlake Village, California 91361, phone (805) 496-4311 and is assisted by Alan Hoffman. In addition to the new Pacific Coast Area office, CGG maintains three other regional offices in Houston, Jackson, Wyoming and Calgary, Alberta.

FRIVOLITY . . .

Question: How much is 2 plus 2?

Answer:

- reservoir engineer's reply . . . "4.000"
- geologist . . . "Somewhere between 3 and 4"
- geophysicist . . . "Well, let's see? What do you want it to be?"

MEMORIAL TO RODNEY G. COLVIN [1922 - 1979]

Rodney G. Colvin died October 8, of cancer, in Bakersfield. He was 57. He leaves his wife, Midge, a son Peter, and a daughter Marianne.

During his career as an exploration geologist, Rod worked for General Petroleum (later Mobil), Great Basins, and, at the time of his death, for Tenneco in Bakersfield. He was an enthusiastic, inspirational geologist. He was a convincing advocate of exploration of deep horizons in the San Joaquin Valley.

Rod was dedicated to his profession, willing to serve effectively whenever called upon. As president (1964-65), he rejuvenated the San Joaquin Geological Society by adopting its present meeting format. He was active in the registration hassles of the mid-1960's in Bakersfield and, later, as legislative representative for the Los Angeles Basin. He was a charter member of the AIPG and its California Section, and was instrumental in the formation of the LA Basin Geological Society. As vice-president of the Pacific Section and membership chairman (1968-69), he greatly increased membership. He was a member or chairman of various committees for many Pacific Section annual meetings, and was associate editor of this publication in 1970-72. He could be counted on to do a good job; he didn't know how to do any other kind.

During his lifetime, Rod never sought credit for his good works on behalf of the profession and his fellow geologists. At its monthly meeting on October 9, the San Joaquin Geological Society established the Rod Colvin Fund, a separate account to support the Society's publications. Those wishing to add to this fitting and lasting memorial may do so by sending a check payable to: "San Joaquin Geological Society, Rod Colvin Fund," P.O. Box 1056, Bakersfield 93302.

Rod's passing leaves a big gap in our ranks.

WES BRUER

Sacramento

SPA officers for 1979-80 are Monte R. Dorris, President; Dave Finnell, Vice President; Don Pinnell, Secretary-Treasurer. SPA meets every Wednesday noon (except holidays) at the Steak and Ale Restaurant, 7218 Franklin Boulevard at Florin Road, South Sacramento.

Everyone's busy — eighteen rigs are running in Northern California — not counting geothermal work. President Monte Dorris and several other SPA members have appeared at a recent Assembly Subcommittee on Energy hearing on AB 1932, which would create a State "Public Oil and Gas Corporation." Another happening was an appearance by Sacramento District Attorney Herb Jackson as guest speaker, discussing the organization and problems of the District Attorney's office. He answered many questions on local law enforcement.

Don Pinnell

San Joaquin

TRANSFERS — PROMOTIONS:

A recent August transfer from ARCO in Dallas brought Mr. Dave Calloway to Bakersfield. Dave's new position with ARCO is District Geologist for the Western Region. A belated congratulations to Mr. Jack N. Kappeler on his June promotion to Western Division, Exploration Manager with Getty Oil. Jack's promotion involved his transfer back to Bakersfield from Los Angeles, where he worked in Getty's International Division. Bakersfield's loss — Ventura's gain, with Mr. William R. (Bill) Stanton leaving Getty to assume a position of staff exploration geologist with Conoco in their new Western Exploration office in Ventura. Conoco plans to have an approximate staff of twelve working on onshore exploration by the end of the year. Oxy is expanding with the addition of a new geologist, Mr. Peter Jeschofnia. Peter left Santa Fe Energy in Houston to join Oxy's Eastern Hemisphere Division staff.

NEW PROPOSED SPACING REGULATIONS:

Mr. Fred Hallmark, the reservoir engineer for the State of California, Division of Oil and Gas, says that the D.O.G. is currently revising spacing regulations to include provisions that will allow supervisors to adopt interim spacing for new pool and/or field discoveries. Studies of well data from the

discovery well and economic analysis will be used by the state to determine the interim spacing plan that they consider to be the minimum spacing for economic recovery of pool reserves. If the supervisor chooses to adopt interim spacing for a new pool, operators will have the option of petitioning for different spacing. The state feels that the interim spacing plan will eliminate the problems encountered with Cal Canal and Rio Viejo fields. Mr. Hallmark also stated that the new regulations would specify the technical data required to support petition of interim spacing plans; and define economic recovery and economic loss.

TRAILER PARK??

People going by Oxy's Stockdale office are going "What . . . ?". The question is prompted by the sight of nineteen trailers situated in Oxy's parking lot. Contrary to the most popular opinion and Oxy's tradition of diversification, the company is not going into the trailer park management business. The trailers are an intermediate solution for an acute space problem, exemplified by one office-less manager.

Maggie Nielsen

Coast

Greetings again from the new Coast Geological Society officers and members. For those who are not already aware, the 1979-80 officers of the Coast Geological Society are:

President Gary Bell
Vice President Gregg Blake
Secretary Gary Nulty
Treasurer Joan Winterer

The Coast Geological Society continues to meet the third Tuesday of each month (October-June) at 7:00 PM at the American Legion Hall in Ventura. Next on our speaker program:

January 15 — Dr. Peter Fisher, "Intermargin Fault Investigations of Continental Borderlands."

As many of you are probably aware, it was the Society's turn to host the 1979 Pacific Section A.A.P.G. Field Trip. The field trip encompassed the "Geology of the Lake Casitas Area" and was received well since we sold out of guidebooks within 2 days. Additional guidebooks may be reprinted if demand justifies expenditures. If anyone is interested in acquiring the above publication or other C.G.S. publications, write to the C.G.S. at P.O. Box 3014, Ventura, Ca. 93003.

Gary Nulty

PACIFIC SECTION AAPG FIELD SUMMARIES

PACOIMA FIELD

P. E. Schnurr
C. E. Koch

DISCOVERY WELL: Chevron U.S.A. Pacoima No. 1, Sec. 11, T2N, R15W, SBB&M, Los Angeles County, Ca.

DISCOVERY DATE: December, 1974.

RESERVOIR: Upper Miocene, Modelo sandstone.

TRAP: Faulted anticline.

SEMI-PROVEN ACREAGE: 680 acres (gas); 500 acres (oil).

ESTIMATED PRIMARY RECOVERABLE RESERVES: 5,600,000 barrels 34° oil and condensate, and 61 Bcf gas.

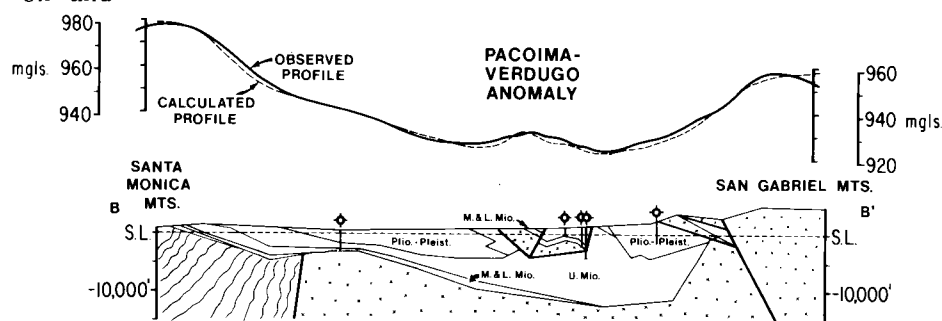
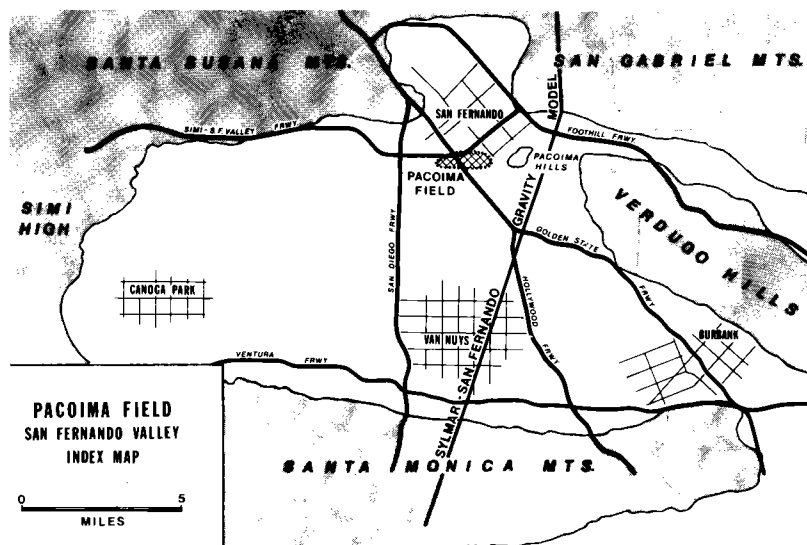
ESTIMATED MAXIMUM RECOVERY RATE: 4,000 barrels of oil and condensate per day and 22,300 Mcf per day.

DRILLING ACTIVITY AND DISCOVERY: The 1974 discovery of oil and gas in the Pacoima prospect represents the most significant hydrocarbon accumulation found to date in the San Fernando Valley. The industry's exploration and drilling activity in the valley began in 1915, and Chevron's involvement commenced in 1920. Chevron drilled 11 dry holes and core holes plus 5 redrills prior to the 1974 discovery.

Gravity modeling was an important part of the preliminary work which led to exploratory drilling in the Pacoima area. Modeling suggested that the sedimentary section in the Pacoima area is about ten thousand feet thick, despite the proximity of basement outcrops in the Pacoima Hills and Verdugo Hills.

The sedimentary section appears to extend beneath the Pacoima Hills indicating that the Hills are either a northwesterly thrust extension of, or a gravity slide block separated from the Verdugo Hills.

Chevron's initial exploratory core hole in the Pacoima area (Century Properties #1) was drilled on a shallow seismic reversal. Steep dips and extensive thrust faulting significantly altered the structural interpretation during and after the drilling of the original hole and 3 redrills. The productive structure was penetrated at a down dip location by the Century Properties #1, R/D #3. Relatively low dip indications in R/D #3, potential reversal, and hydrocarbon shows were the incentives to drill what proved to be the discovery core hole



SYLMAR-SAN FERNANDO GRAVITY MODEL

(Pacoima #1 and R/D #1). Two additional delineation core holes and one redrill have all encountered commercial quantities of gas and/or oil.

STRUCTURE: The Pacoima structure is an east-west oriented, asymmetrical, hanging wall anticline associated with north dipping thrust faulting. The east-west structural grain, north dipping thrusts, and over steepened south dips reflect the southerly directed compressive stresses which dominate the structural pattern of this part of the San Fernando Valley.

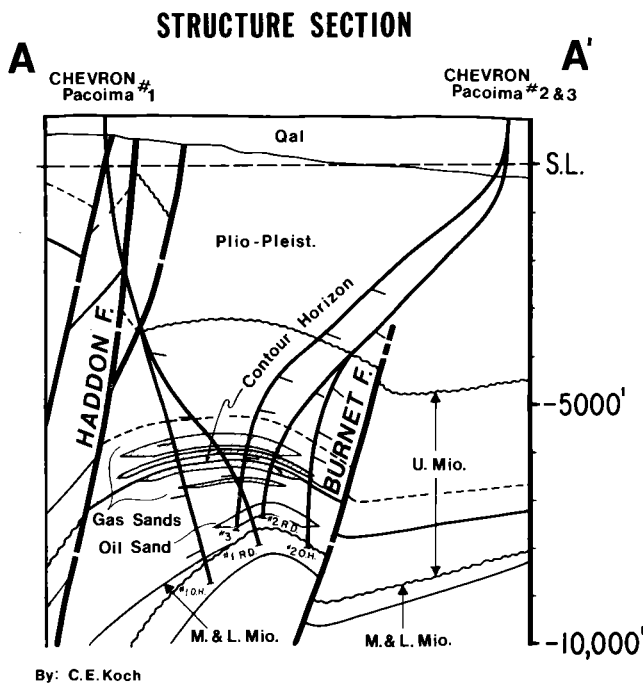
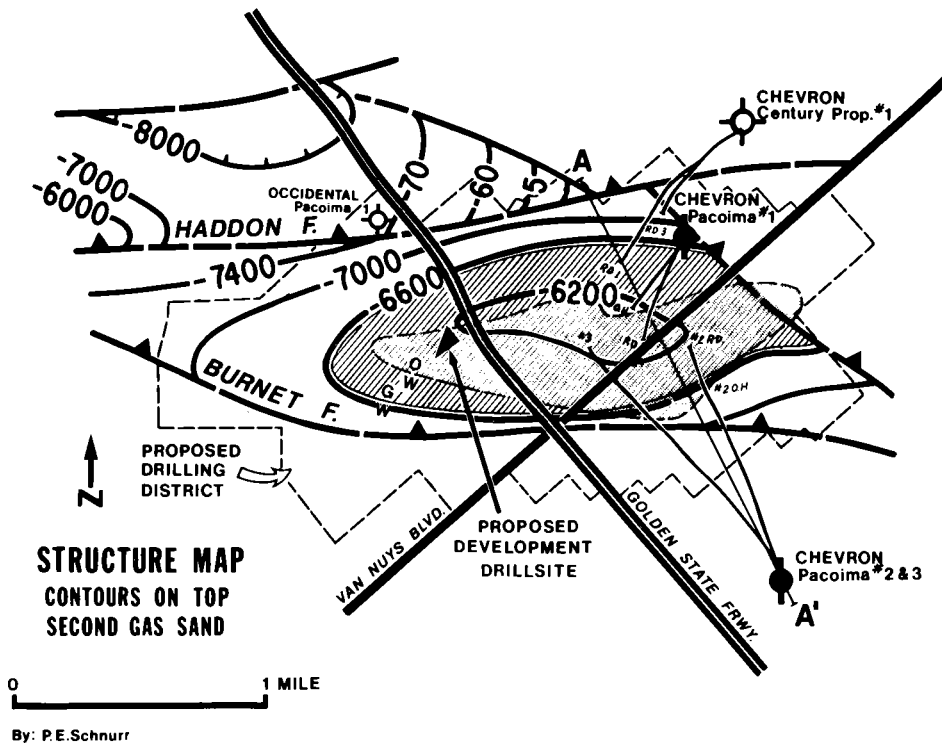
STRATIGRAPHY: The oil and gas in the Pacoima field are trapped in thin Middle-Lower Mohnian turbidite sands of the Modelo formation. The sands are partially age equivalent to the diatomaceous sequence on the north flank of the Santa Monica Mountains and to clastic sequences in the Pacoima and Verdugo Hills and Santa Susana Mountains.

Gas is present in four separate intervals, an Upper Gas Sand zone and three discreet lower sands. The gross thickness of the Upper Gas Sand zone averages 250 ft. with approximately 40 ft. of net gas sand in beds less than ten feet thick. The lower gas sands are 20 to 40 ft. thick each. Therefore, the

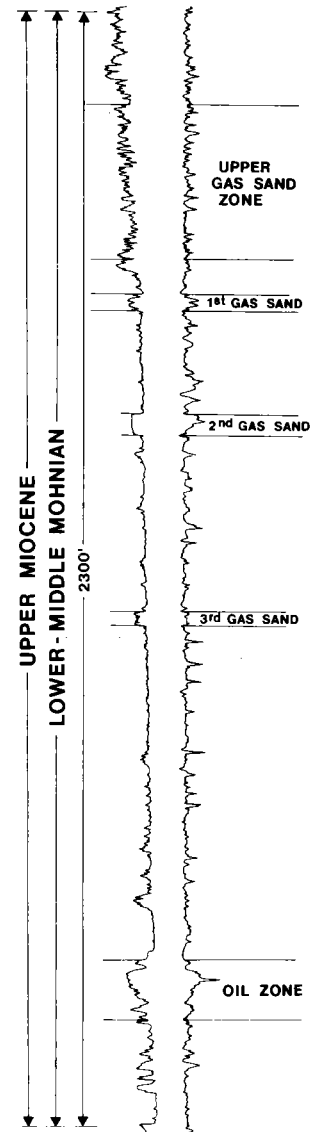
average total net gas sand for the Pacoima field is about 120 ft., and the sands occur within a 1000 ft. interval. The gas sands are grey, fine to medium grained, poorly sorted, and sub-angular. Log and core analysis indicate an average 23% porosity and 480 md. permeability in the gas sands.

The oil zone occurs about 800 ft. below the lowest gas sand. It contains an average of 66 ft. of net oil sand distributed in an upper massive sand and in underlying thin sands interbedded with shale. The oil sand is well sorted and fine grained with a fine matrix and rare pebbly layers. It is predominantly quartzo-feldspathic with abundant mafics and locally is well cemented with calcite. The average porosity of the oil sand is 24%; average permeability, 160 md.

RESERVES AND DEVELOPMENT: Approval of the Pacoima drilling district by the city of Los Angeles is expected in late 1979. After the drilling district is approved, construction of the development drillsite will begin in August, 1980, with the first production to follow approximately six months later. Fifteen oil wells and six gas wells are planned at present. Flow potential of the oil wells is expected to last ap-



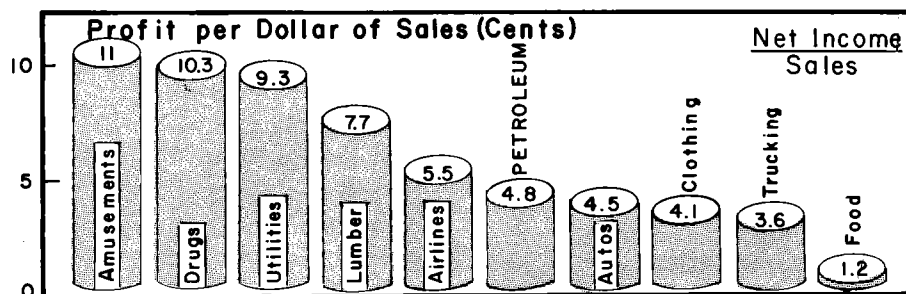
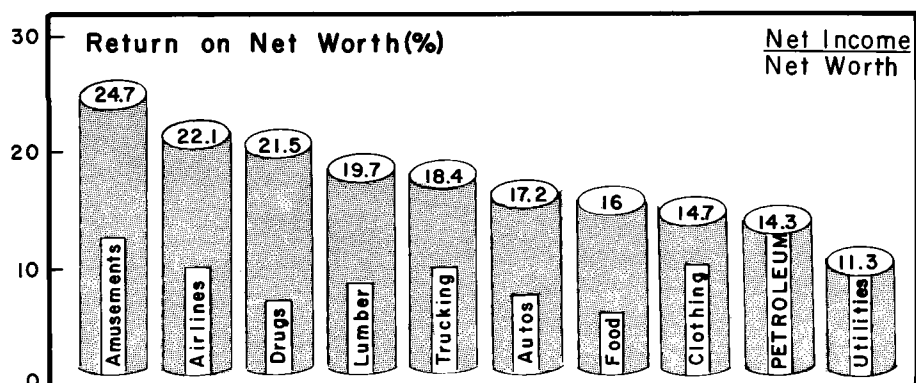
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proximately 6 months to 2 years, at which time they will be converted to gas lift. Peak production is expected to be 4,000 barrels of oil and condensate and 22,300 Mcf of gas per day in about three years from start of production. Ultimate primary recovery is expected to be 5.6 million barrels of oil and condensate and 61 million Mcf gas over 20 years.

* to be published in National AAPG Bulletin.

1978 Profits of 10 Consumer Product Industries



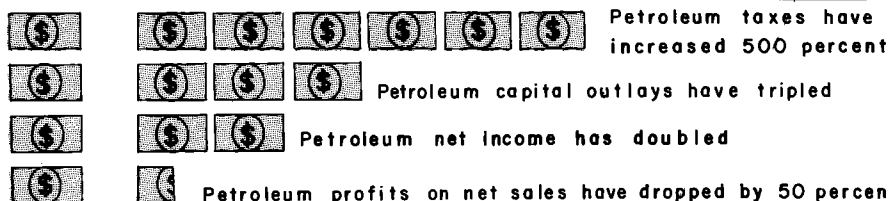
1978 petroleum profits were below the national industry average of

- 14.8% in return on net worth
- 5.3% in profit per dollar of sales

Over the last 10 years

1968 vs

1978



Source: Monthly Economic Letter (April 1979), Citibank, N.A., NYC; Financial Analysis (1978 Preliminary), Chase Manhattan Bank, NYC.

OIL COMPANY PROFITABILITY ...

The absolute size of an industry's profits, by itself, provides little information beyond the fact that the industry is large or small. A bigger industry is simply bigger in most dimensions than a smaller industry. The same conclusion is true of a change in the absolute level of profits. If profits rise, the absolute amount of increase for the larger industry will tend to be larger than for a smaller industry.

Thus, some standard, or common denominator, is required to assess whether profits are high or low. The most commonly used standard is the ratio of profits to investment. This ratio, expressed as a percentage, is

referred to as the profitability of an enterprise or industry.

The most frequently cited measure of profitability is return on equity. This measures profit as a percent of the stockholders' investment. Data compiled by Citibank indicate that the oil industry's return on equity over the ten years 1969 through 1978 has been about the same on average as that for all manufacturing industries. Based on preliminary Citibank figures, oil company return on equity was 14.3 percent in 1978 compared to 15.9 percent for all manufacturing. Given this, the oil companies' average rate of return on equity was below that for all manufacturing in five of the last 10 years.

(The preceding information is provided to promote a better understanding of the energy situation.)

AAPG NEW BOOKS ...

AAPG has 3 new publications:

1. **Currents in Submarine Canyons and Other Seavalleys** (AAPG Studies in Geology 8), by Francis P. Shepard, Neil F. Marshall, Patrick A. McClughlin, and Gary G. Sullivan.

The volume (173 pages) is a wealth of both raw data and interpretations about seafloor currents and submarine canyons. The book includes 125 figures and original maps of many submarine canyons, and is one of the most complete studies on seafloor current ever published.

This book is available for \$9.00 to AAPG-SEPM members (\$11 to non-members) from the AAPG Bookstore, P.O. Box 979, Tulsa, Oklahoma 74101

2. **Geological and Geophysical Investigations of Continental Margins.**

AAPG Memoir 29, Edited by Joel S. Watkins, Lucien Montadert, and Patricia Wood Dickerson.

Worldwide examples are offered in top papers presented on studies of continental and insular margins.

Four sections, 32 papers, from the 1977 UTMSI/AAPG Research Symposium at Galveston and the 1977 AAPG Annual Meeting.

Four seismic line foldouts, 472 pages plus index, large format for easy reading and reference.

A volume of seismic studies to add to the library of case histories.

÷APG Catalog: 639. Price: AAPG-SEPM, \$19.50; others, \$24. Air Mail Option is \$11.00.

3. **Framework, Facies, and Oil-Trapping Characteristics of the Upper Continental Margin.**

AAPG Studies in Geology No. 7. Edited by Arnold H. Bouma, George T. Moore, and James M. Coleman.

Sixteen articles, organized and indexed, make this volume an excellent reference.

Thirty-four geologists present their studies and offer insight to our newest exploration frontier.

Papers from the AAPG Annual Meeting at New Orleans, and from the Short Course "Beyond the Shelf Break," offer a complete picture of the structural and depositional aspects of the upper continental margin.

Models of upper continental margin environments are applicable examples of both onshore and offshore facies throughout the world.

Catalog: 806. Price: AAPG-SEPM, \$14; others, \$17. Air Mail Option is \$4.00.

DETERMINING OIL IN-PLACE AND RECOVERABLE OIL-IN-PLACE

The chart is based on the following formulas:

$$\triangleright N = \frac{7,758 \phi (1 - S_w)}{B_o}$$

$$\triangleright N_r = \frac{7,758 \phi (1 - S_w) (R.F.)}{B_o}$$

Where:

N = Oil in place, STB/acre-ft.

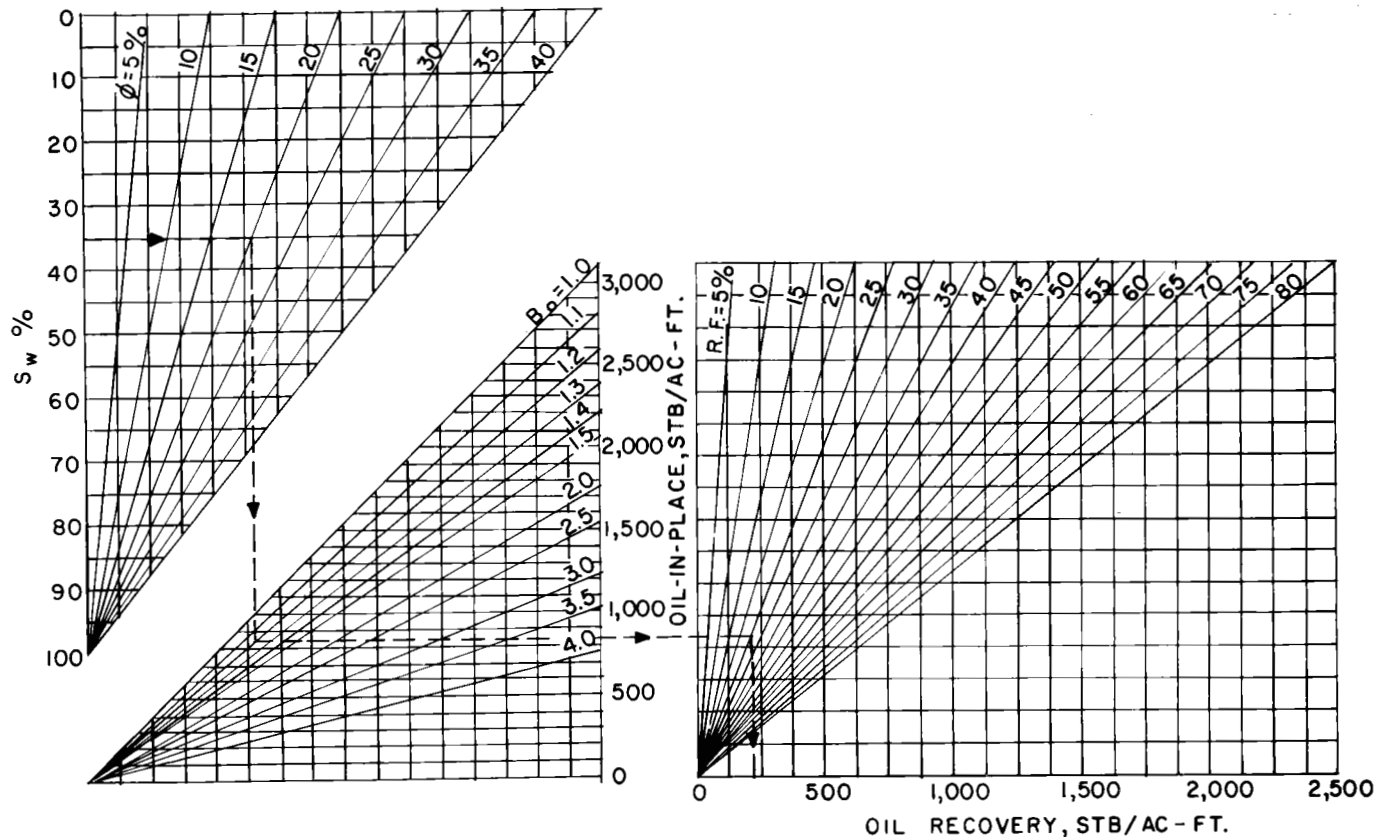
ϕ = Porosity

S_w = Water saturation

B_o = Formation volume factor

N_r = Recoverable reserves, STB/acre-ft.

R.F. = Recovery fraction



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RECOMMENDED READING . .

U. S. GEOLOGICAL SURVEY

Bulletin 1462: Basic concepts of computerized digital image processing for geologists, by C. D. Condit and P. S. Chavez, Jr. \$3.25.

Circular 794: Preliminary geologic, petrologic, and paleontologic results of the study of the Nanushuk Group rocks, North Slope, Alaska by T. S. Ahlbrandt, editor. Free.

NEWSLETTER

Pacific Section A.A.P.G.

P.O. Box 1072

Bakersfield, California 93302

**PACIFIC SECTIONS
AAPG — SEPM — SEG
FIFTY FIFTH ANNUAL MEETING
BAKERSFIELD, CALIFORNIA**

WEDNESDAY — April 9, 1980

GOLF — Kern City

TENNIS — Rio Bravo

ICE BREAKER — Dinner - Dance

THURSDAY — April 10, 1980

TECHNICAL SESSIONS

AAPG — Energy — Challenge of the 80's

SEPM — Holocene Symposium

**SEG — Stratigraphic Geophysics —
Direct Detection**

JOINT LUNCHEON

Ladies Luncheon and Tennis — Laurel Glen

FRIDAY — April 11, 1980

TECHNICAL SESSIONS

ALUMNI LUNCHEONS

Ladies Luncheon and Fashion Show — Hill House

FIELD TRIP — ½ Day Kern River Field

BBQ — Santa Maria Style plus Blue Gray Band

Plus

EXHIBITS

EXHIBITS

EXHIBITS

Richard L. Hester
1911 Montecito Dr.
Glendale, CA 91208

DA-AM

