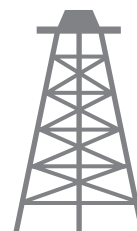




Pacific Petroleum Geology



NEWSLETTER

Pacific Section • American Association of Petroleum Geologists

August 2022

Monterey Formation Research Conference

November 4th-6th, 2022
Ventura, CA

Call for Papers

Submit your abstract by September 22, 2022

information on pages 8-9



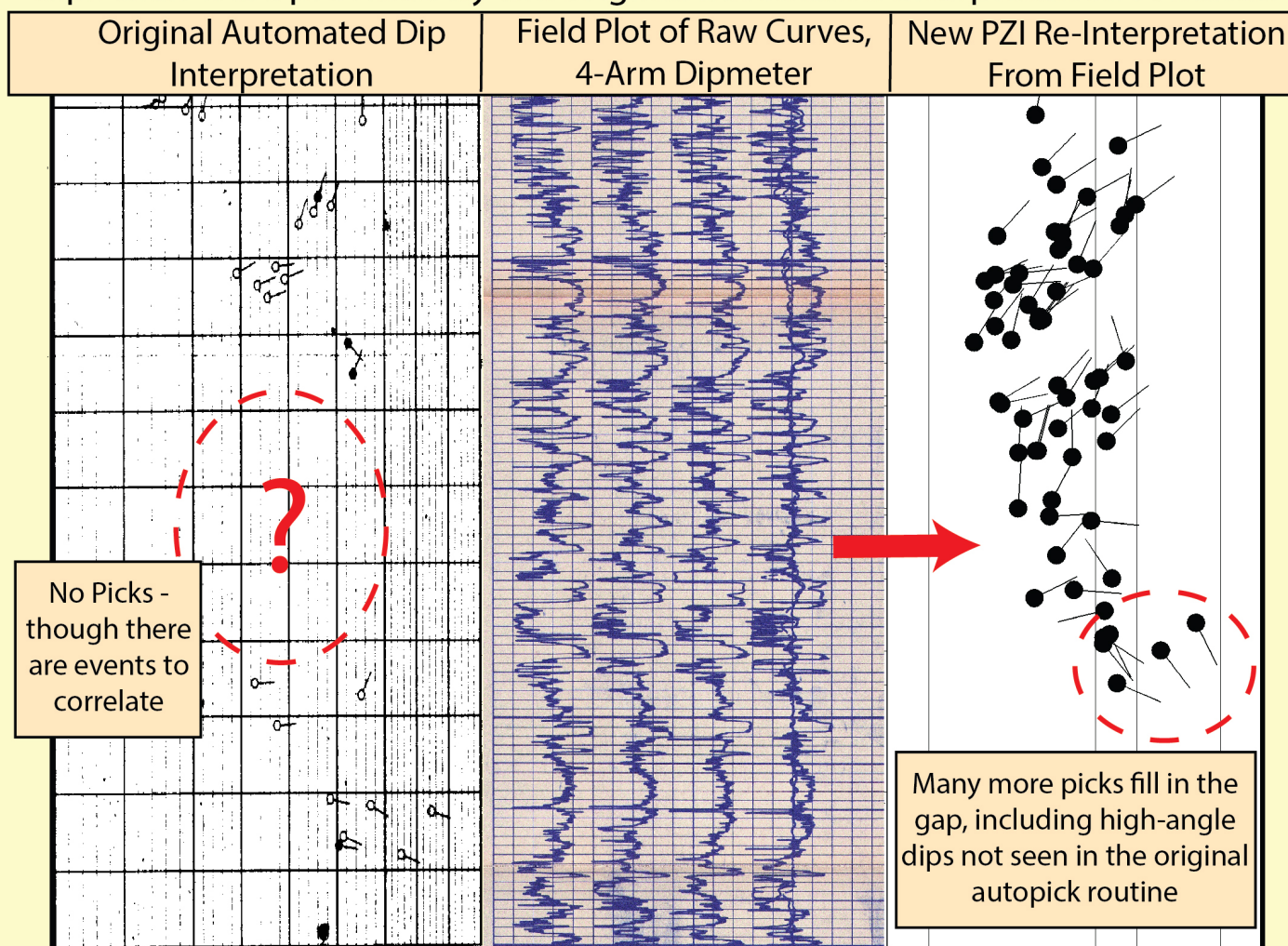
Remembering Bob Lindblom

pages 10-12

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Submit an Article to the Pacific Petroleum Newsletter!

- CONTACT THE EDITOR at editor@PSAAPG.org
- Images (graphics, photos, and scans) must be at least 300 dpi resolution. Text should be at least 600 dpi.
- Scanned photos, illustrations (line art) or logos should preferably be submitted as a .tif, .gif, or .bmp; .jpeg

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Dear PS-AAPG Members,

It has been an honor to serve the PS-AAPG this past year. I extend my sincere and heartfelt thanks to the outgoing Executive Committee, their families, and our local leadership and volunteers from Anchorage to San Diego. Thank you, Becca Schempp (Past President), Plamen Ganev (incoming President), Wanjiru Wilder (Secretary), Lisa Alpert (Treasurer), Simarjit Chehal (Treasurer-Elect & Membership Chair), Tony Reid (Editor-in-Chief), Mike Clark (Web Master), Larry Knauer (Publications Chair), Cynthia Huggins (IBA), Cole Heap (Students), Karla Tucker (TOTY), and the leadership in the local geological societies.

I am proud to welcome the new Executive Committee and I have full confidence that they will make PS-AAPG even better over the coming year. The newly elected members include Plamen Ganev (President), Kristy H. Whitaker (President-Elect), Amy Spaziani (Secretary), Lisa Alpert (Treasurer), Megan Mortimer-Lamb (Treasurer-Elect), Simarjit Chehal (Membership Chair), Tony Reid (Editor-in-Chief), Mike Clark (Web Master), Larry Knauer (Publications Chair), Cynthia Huggins (IBA), Cole Heap (Students), Karla Tucker (TOTY).

As I look back over the 100-year history of the PS-AAPG, I am reminded of the fragility of organizations, and how rapidly things can change. We continue the struggle to find volunteers for our organization and our Affiliated Societies. We continue the struggle to remain relevant, and our membership is dropping. These are factors out of our control; what is in our control is to preserve our legacy and redefine who we will become for the next 100 years. By redefining that, we can reclaim our relevancy and grow our membership. Since PS-AAPG is the smallest Section in AAPG, it would behoove us to be strategic in planning our way forward. It will require us to look deep within, our society and ourselves.



For PS-AAPG to find its way back to scientific prominence in California, we need to engage with other Energy and Earth Scientists and deepen our scientific ties, especially within the hydrology and regulatory community. Commodities and resources are all shared, and we need to stop the political competition between them. Competition is in the mind of people, and it is viciously fueled by politicians (who need polarizing views to win their agendas), the media frenzy (who thrive on drama, crises, and sensationalism), and more recently, the investment community (who have used the media to aid in profits – consider a single tweet changing the stock market).

In terms of our future as oil finders, I am very optimistic that all energy systems can grow together to meet ever increasing demand. We continue to consume more oil and gas every year, and the world demands our energy and by-products. We need more oil and gas, not less, and that will not change. Oil and gas are still inexpensive by comparative measures to other sources, but it is becoming scarcer. As more and more people are leaving poverty behind, they will require their fair share of cheap and clean energy

(electricity and gas versus wood burning for example). Our role in oil and gas will expand for decades to come. Compounded with the obvious supply issue of oil and gas (extremely low investment for a decade and lowest new discovery rate since 1946), it's scary to think that as soon as within this decade, there may not be enough oil and gas to supply even our current energy demand. The anti-hydrocarbon militia, compounded with the short memory of human accomplishment, fueled in a digital headline world, has forgotten how scary the energy environment looked pre-shale.

The US oil industry is largely pro-regulation, and we all agree that responsible operating should be the standard. However, increasingly anti-oil regulations seem to be designed to achieve nothing more than drowning operators in red tape. The free market and private sector should control oil production, and Federal and State governments need to remember their role in our business; allow the regulators to regulate and the producers to produce, safely, and responsibly, and without the political rhetoric muddying the waters.

The current administration and Governor Newsom's radical anti-oil, populist governing style cannot lead to anything good for California, the United States, nor the world. The approximately 90% of the people living in the nonwestern world are excited to leave poverty behind them, enjoy clean water, refrigeration, and other luxuries that energy will afford them. They are building infrastructure and power plants; they are building cities and factories. The West will quickly become irrelevant on the world's stage if we do not embrace all energy forms. Those who produce (energy and goods) are those that will thrive into the next century.

Several of my colleagues have pointed out that we are in an energy transition. I don't believe that is true, nor possible currently. We are however in an

emissions transition. We need to maintain and build robust energy networks for the future, and lower emissions at the same time. Energy scientists will play an increasingly critical role in delivering on those needs. With continued efforts and innovations in Carbon Sequestration and development of clean energy, we can rise to meet demand AND reduce emissions. Climate change is a major issue, but it's not the only issue; energy and water security are real crises that need significantly more attention.

Educating our communities and building favorable relationships within them should be at the center of our mission. We live here, we raise our families here, we are geologists, hikers, conservationists, nature lovers, community leaders and philanthropists. We want to preserve the natural beauty of the Pacific Section for future generations, and we are the boots on the ground every day. We need to lead by example while also securing reserves for our communities.

Our education efforts need to focus on the thoughtful middle, where rational thinking is most effective. This group are the large majority (65%) of people who are not politically ideologized.

As scientists we are expected to be objective, follow the data, adjust accordingly, and do our part to provide the materials and knowledge needed to pave the way forward. Because of our objective training, we do not always understand the culture of politics and it's easy to get lost in the debate. Let's educate ourselves in communication practices and jump into the conversation. With the right communication style and platform, we can drive innovation, investment, increase production and lower emission to better the lives of all.

My warmest wishes to you all,

Vaughn G. Thompson

New Officers Selected for the Pacific Section AAPG Executive Committee

Please welcome President-Elect Kristy Whitaker, Treasurer-Elect Megan Mortimer-Lamb and Secretary Amy Spaziani to the Pacific Section AAPG 2022-2023 Executive Committee. All three are appointed officers; an election was not held because no additional qualified candidates were found.

President-Elect Kristy Whitaker



EDUCATION

- PhD, Geoscience, University of Iowa
- MS, Geology, Oklahoma State University
- BS, Geology, State University of New York at Albany

EMPLOYMENT

- Berry Corporation, Earth Sciences Manager, 2020-present
- Berry Corporation, SE San Joaquin Technical Manager, 2019-2020
- Berry Corporation, Business Development Geologist, 2017-2019
- Linn Energy, Business Development Geologist, 2015-2017
- Apache Corporation, Senior Geologist, 2014-2015
- BP Alaska, Production Geologist, 2011-2014
- BP America, Geologist, 2008-2011

PRIOR SERVICE

- Pacific Section Council Member, AAPG EMD, 2019-2020
- Vice President, San Joaquin Geological Society, 2018-2019

Treasurer-Elect Megan Mortimer-Lamb



EDUCATION

- Graduate Certificate in GIS, Penn State University, 2021
- M.S. Geology, CSU Long Beach, 2019
- B.S. Geology, University of Oregon, 2017

EMPLOYMENT

- Geologist, Aera Energy, LLC, Bakersfield, CA (2019-present)
- Teaching Assistant, CSU Long Beach, (2017-2019)

PRIOR SERVICE

- AAPG Teacher of the Year Committee (2020-present)
- Willamette Valley AAPG Student Chapter President (2016-2017)
- University of Oregon Geology Club President (2015-2016)

Secretary Amy Spaziani

Amy Spaziani is an independent consulting geologist and owner of Spaziani GeoServices. She has over 14 years of experience as a geologist and has worked in the petroleum industry for more than 10 years. Prior to becoming a consultant, Amy worked for BP, the Ohio State Geological Survey, the American Geological Institute, and the U.S. Geological Survey. Amy has experience in multiple basins, including California, Texas, Oklahoma, South America, and Africa, and has worked on a broad range of projects from development and production to access and exploration to coastal restoration and education. Amy holds a bachelor's degree in Geological Sciences and Political Science from the State University of New York at Geneseo, and a Master of Science in Oceanography from Louisiana State University.

Other Officers for the 2022-2023 Executive Committee

Plamen N. Ganey
President



Lisa Alpert
Treasurer



Vaughn Thompson
Past President



Tony Reid
Editor-In-Chief

The Coast Geological Society, in conjunction with Pacific Section AAPG, announces a **Call for Papers** for a **Monterey Formation Research Conference**, to be held Nov. 4 -6, 2022, in Ventura, California.

The Monterey Formation has been the subject of academic, government, and energy industry studies for the past 50 years, primarily supporting hydrocarbon exploration and production. It was deposited during an important time in the climatic and oceanic evolution of the Neogene, recording the transition from a relatively warm "greenhouse" climate to cooler temperatures of "icehouse" climatic conditions, accompanied by significant glaciation in the polar regions. Large volumes of data and expertise were generated describing depositional, stratigraphic, and geochemical aspects of Monterey strata during the energy quest. That same expertise and data have value for multiple topics of current research, including paleoceanography and climate studies, that benefit greatly from using recently refined age dating technologies.

Through this meeting, we endeavor to bring together late-career and mid-career researchers, as well as students beginning their investigations, for an exchange of ideas and discussions in seminar format, poster presentations, and at the outcrop. The conference format will consist of a few initial presentations (an introduction for students and a refresher for veterans) covering our current understanding of Monterey depositional setting, stratigraphy, and diagenesis. These talks set the stage for presentations outlining new tools and knowledge of Monterey chronostratigraphy and deposition developed during the past decade of research. Presentations highlighting current and future research directions are encouraged, including early-phase research and project proposals from students in the conceptual stage and looking for input from other attendees.



**Monterey Formation
Research Conference**

November 4th-6th, 2022
Ventura, CA

Call for Papers

Submit your abstract by September 22, 2022



This is an invitation for submissions on a broad range of topics under the Monterey umbrella. Abstracts should be 250 words or less and include the title, authors, contact information, and your preference for an oral or poster presentation. Please use [this form](#) to submit abstracts by Sept. 22, 2022.

Additional information about the conference is available at [our website](#). If you are reasonably sure you will submit an abstract, but will not submit until closer to the deadline, the conference conveners encourage an email to Monterey2022cgs@gmail.com that includes tentative title and authors so they can move forward planning the program. Inquiries about the meeting and abstract submittal can also be addressed to this email.

Program: Seminar presentations Friday, Nov. 4 Field Visits Saturday-Sunday
Nov. 5-6

Conference Conveners: Gregg Blake, Jon Schwalbach, and John Dunham

Robert G. Lindblom
December 14, 1925 – July 8, 2022

Robert (Bob) Lindblom, beloved husband, father, and grandfather, and accomplished Geologist, Petroleum Engineer and Professor, died Friday, July 8, 2022, surrounded by family at his home in Menlo Park, California. He was 96 years old.

Born in Duluth, Minnesota in 1925 to parents Charles and Dora Lindblom he joined the Army Air Corps after graduating high school. After leaving military service in 1946, he attended the University of Chicago where he received his BS in Physical Sciences-Geology. He then joined Standard Oil Company (now Chevron) in 1951 and retired in 1990.

While at Chevron, Bob became a lecturer in 1975 and then a consulting/adjunct professor in 1985 for the Energy Resources Engineering Department, School of Earth Energy and Environmental Sciences at Stanford University. During that time, he was also a passionate freshman advisor, regularly taking his advisees to lunch at the Faculty Club, learning about their interests and goals, and helping them navigate their time at Stanford.

Bob was an esteemed member of numerous professional societies, a California Professional Geologist and was appointed as a Professional Member, California State Board of Registration for Geologists and Geophysicists by Governor Pete Wilson in 1992. While a member of the American Association of Petroleum Geologists, he received their Distinguished Service Award in 1992; was a Distinguished Member of their House of Delegates in 2010; and served as Vice President from 1993-1994. Most recently, in May 2022, Bob was presented with the Samuel T. Pees Keeper of the Flame Award by the Petroleum History Institute.



Bob was an avid golfer who could regularly be found on the Stanford Golf Course and was extremely proud of his fourth hole-in-one at the age of 92. Everyone who knew him appreciated his zest for life, boundless energy, and optimistic spirit. Whether it was enjoying a Manhattan in December; weekly cribbage; Stanford football, basketball and baseball games; annual Father/Son golf tournaments; or his daughter's string quartet performances—Bob lived his life to the fullest.

Bob is survived by his wife of 51 years, Arlene, and children Eric (Kathy), Stephen (Michelle), and Karen (Phil Morais, Jr.). He is also survived by his five grandchildren: Grant, Alyssa, Marc, Heidi and Roberto.

Bob Lindblom and the Pacific Section AAPG

Editor's note: Anyone who has attended the annual PSAAPG meetings should be familiar with Bob from his hosting of the Awards and Honors ceremonies. Below is a remembrance of Bob from Bob Countryman, his colleague on the A&H Committee, and photos of Bob from the collection of Brian Pitts and from archived PPG Newsletters courtesy of Larry Knauer.

Remembering Bob Lindblom

By Bob Countryman

Roughly speaking, there have been three major generations of Petroleum Geologists since WW2 reflecting the oil price and hiring cycles of the industry: the late 1940's through early 1960's, the mid 1970's through mid-1980's and the first decade of this century. Each of these cycles had individuals that participated in local, regional, and national AAPG activities. Bob Lindblom is one of the rare individuals who was active in our societies through all these cycles. Bob was active in the SJGS in the late 1950's and 60's (SJGS VP 1960-61), the PSAAPG in the 1970's and 80's (Secretary 1971, VP 1984-5 and President 1986-7) and the National AAPG in the 1990's (VP 1993-4 and on the Advisory Council from 1987-90). He also found time to teach petroleum geology and well log analysis at Stanford since 1975 and served on the Board of Registration for Geologists for much of the 1990's (President from 1994-6). He wrote papers, gave talks and accumulated more awards than space permits listing although his Honorary Memberships in PSAAPG (1991) and AAPG (1999) stand out prominently.

Many of the petroleum geologists who entered the industry in the first two cycles worked with him in many of those activities. But most members of the last cycle knew Bob through his incredible leadership of the PSAAPG's Honors and Awards Committee. Bob took over the chairman's role beginning in 1995 and continued



Bob as candidate for PSAAPG Vice President. He served as VP in 1984-5 and as President in 1986-7.



Chair of the H&A Committee Bob Lindblom with the recipient of a Special Recognition Award, Don Clarke, at the PSAAPG Annual Meeting in Universal City, 2001

it for 27 years until this year. His presentation of the awards at our conventions were always memorable with his clever humor and ability to make all the awardees feel special. He made the challenging work behind the scenes identifying and selecting candidates, procuring the writeups, purchasing the awards, etc. appear easy although often it was anything but that.

When remembering Bob Lindblom, we recall his good humor, boundless energy and enthusiasm for geology and the profession of Petroleum geology. He served in many roles: as a family man (the self-proclaimed oldest scout master in the Bay area), as a professional petroleum geologist with Chevron for 39 years, in academics as a professor at Stanford, in the political realm with the California Board of Registration, in myriad roles with the PSAAPG and AAPG and as a good and treasured friend to everyone who knew him. To use one of his favorite words, being around Bob Lindblom was always a propitious experience.



Bob, with Gene Fritsche in the background, enjoying a flight to the North Slope during one of the Annual Meetings in Anchorage.



Bob in the role he did so well for 27 years, presenting PSAAPG's awards and honors at the Annual Meeting, this time in Ventura, 2009.



A Relaxing moment with friends at the PSAAPG booth, 2015 Annual Meeting, Ventura.



A screen capture of Bob's hosting the Honors and Awards ceremony, 2022 PSAAPG Virtual Meeting.



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Anomalies

† Pioneering Women in Petroleum Geology: 1917-2017

To be released April 1, 2017, *Anomalies* represents a deep foraging into the unrealized and near lost history of women that began in 1917 their 100 year journey as petroleum geologists.

“Robbie Gries and her contributors have created a remarkable account of early women in petroleum geology. The book represents a “deep dive” into the lives, accomplishments, triumphs, and, even, terrors, of early women professionals. It displays impressive scholarship, and reflects four years’ efforts to source histories of these largely forgotten women professionals.

An astounding network of women professionals, formed by need, strengthened by time, constituting an amazing support system. Robbie has done an amazing, multi-year research effort in uncovering hundreds of early petroleum geologists, active in many countries, whose early efforts are now recorded for our belated appreciation.

A delightful, hopeful, sense of progress is conveyed by the book, as the intense survival stories of early women geologists, give way to a prideful modern acknowledgement of the importance of women petroleum geoscientists in our modern petroleum industry.

The book should be read by every petroleum geologist, geophysicist, and petroleum engineer; partly for the pleasure of the sprightly told adventures, partly for a sense of history, and, significantly, because it engenders a proper respect towards all women professionals, forging their unique way in a “man’s world”.

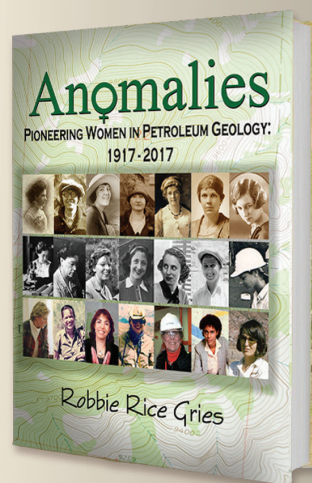
Buy this book! It will renew your pride in being a petroleum geologist, and it will enlighten you on the struggles of our wonderful women associates as they followed their professional dreams.”

– Marlan Downey, Past President of AAPG, CEO Roxanna Petroleum

“*Anomalies* celebrates the inspiring achievements of an intrepid group of pioneering women that have laid the groundwork for female geoscientists today. Robbie Gries provides an entertaining and informative narrative of 100 years of trailblazers that is enriched by excerpts from diaries, letters and interviews. The women in these pages were true scientific contributors and innovators at a time when women were just emerging into the growing field of petroleum geology. This is a must read for any historian of the oil patch, as it provides the only comprehensive record of the hidden history of these ground-breaking women.”

– Allyson Anderson Book,
Executive Director - American Geosciences
Institute

Once released, the book can be ordered from the AAPG Store for \$50 plus shipping and handling. Please e-mail publications@AAPG.org expressing your interest and we will contact you as soon as the book is available. Don't want to wait? Visit the AAPG Center at the 2017 ACE meeting to purchase your copy.



From the Bakersfield *Californian*, August 6, 2022

Carbon Management Projects in Kern Net \$500 Million Investment

BY JOHN COX

A Canadian-based asset management firm has agreed to contribute a half-billion dollars, with the possibility of twice that much still to come, in support of a local oil producer's plans to develop carbon management projects in Kern County.

California Resources Corp.'s joint venture with a fund run by Brookfield Asset Management Inc. will provide \$10 per metric ton of carbon dioxide injected into a large geologic formation in the Elk Hills Oil Field. The partnership proposes to deposit 5 million metric tons per year for a total of 200 million metric tons.

"Reaching this target would require an estimated \$2.5 billion of total capital, and Brookfield could make additional investments of more than \$1 billion in the strategic partnership assuming it fully participates in these CCS (carbon capture and sequestration) projects," Long Beach-based CRC said in a news release this week.

Kern is emerging as a West Coast leader in CCS, a field of technology intended to address climate change by taking CO₂, a common greenhouse gas, out of the atmosphere and burying it deep underground indefinitely. The county is considered an ideal place for such work, partly because of its abundance of depleted oil and gas reservoirs but also because of existing gas infrastructure and local industrial expertise.

Environmental groups have expressed worries about potentially dangerous leaks from CCS, the activity's high energy intensity and the idea of subsidizing oil companies. But local officials see CCS as a potential job engine that could attract major investment and help Kern transition away from its economic dependence on oil and gas production.

CRC's release pointed to financial support for CCS in the form of the state's cap-and-trade and Low Carbon Fuel Standard programs, as well as a federal tax credit of \$50 per ton of CO₂ captured and permanently stored.

The Ontario-based firm's Brookfield Global Transition Fund is touted as the largest of its kind dedicated to transitioning to a net zero carbon economy. The company said in June the fund had raised \$15 billion, a sixth of which has already been allocated.

For CRC, one of California's biggest oil and gas producers, the joint venture announced Wednesday lowers financial risk, adds development expertise and brings new capital for accelerating its carbon management strategy.

"It also enables CRC to maintain capital discipline and financial flexibility to achieve our corporate objectives including achieving our Full-Scope Net Zero 2045 goal," President and CEO Mac McFarland said in a news release.

Brookfield Renewable's Connor Teskey added, "Partnering with CRC presents a great opportunity to continue the growth of our CCS business and expand the scope of decarbonization solutions we provide to our customers."

The joint venture projects laid out in the release will be owned 51 percent by CRC and 49 percent by Brookfield. A CRC spokesman said by email all the projects will be located in Kern.

In March, county government initiated a review of a CCS project proposed by CRC that would be the first in Kern. Dubbed Carbon TerraVault I, it would gather CO₂ from a variety of industrial sources and bury it in former oil reservoirs using half a dozen injector wells in the Elk Hills Oil Field about 26 miles southwest of Bakersfield.

CRC says Carbon TerraVault I would bury more than 1 million metric tons of CO₂ per year — equivalent to taking 200,000 passenger vehicles off the road — up to a total of 48 million tons.

New Pacific Section AAPG Publication

Advances in the Geology of the Sacramento and Northern San Joaquin Basins since PSAAPG Miscellaneous Publications 41 and 43

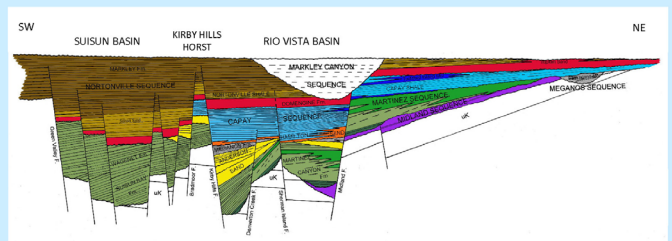
**Available by direct download from the
PS AAPG web site, or in CD form. In
either form, the price is \$45.**

**To purchase, contact the PS AAPG
Publisher at Pacific Section AAPG,
Publications Chair, P.O. Box 1072,
Bakersfield, CA, 93302, or contact Larry
Knauer at laknauer@aol.com.**

Advances in the Geology of the Sacramento and Northern San Joaquin Basins

since PSAAPG Miscellaneous Publications 41 and 43

Volume 1



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P.O. Box 1072, Bakersfield, CA 93302
December 2020

Coast Geological Society 2022 Awards

Presented May 19, 2022

Renee Francese Richards

Thank you so much to our membership and students who attended our 2nd Annual Student Symposium! We had over 50 attendees for our first in person meeting in over two years. It was great meeting new people and seeing familiar faces.

We had five posters from talented geoscience students from SBCC and Moorpark College.

- The Calc-Alkaline Mineralogy of the Conejo Volcanics Basalt by Jordana Rataizer and Hannah Yakimisky, Moorpark College
- Effects of Lithology on Plant Communities in the Western Santa Monica Mountains by Matthew Rens and Ryan Parkyn, Moorpark College
- Hydrothermal Alteration of the San Gabriel Granitics by Alex Palache and Marley Ross, Moorpark College
- Chemical Weathering of Hornblende in Dacite at Tarantula Hill by Nicholas Kay, Alex Palache, and Alyssa Lopez, Moorpark College
- Lithology of the Soda Springs and Deer Creek Region of Southern Oregon by David Nims, SBCC

We were also able to award scholarships to many deserving aspiring geologists! Many thanks to Pacific Section AAPG for their continued support.

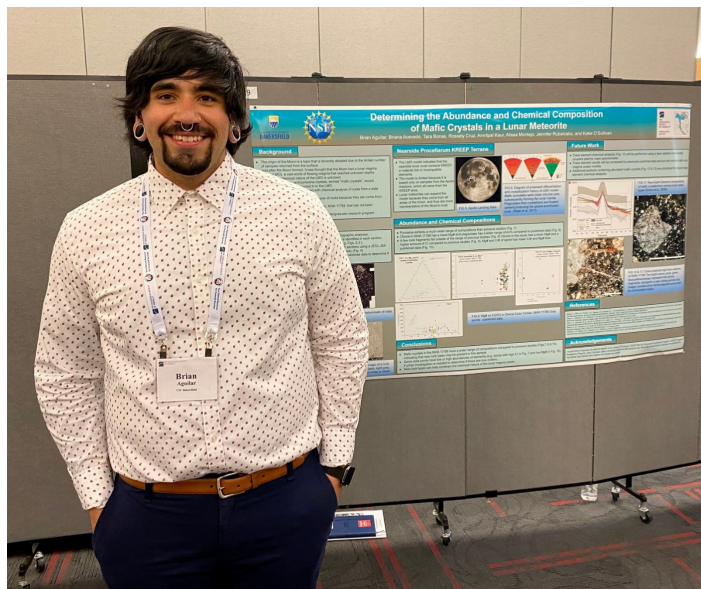
- Joe Dattilo and Mike McCracken from SBCC
- Matthew Rens from Moorpark College
- Sally Richards from Ventura College
- Georgina Judit Campos and Monica Diaz from CSUN
- Elisa Medri and Zephyr Girard from UCSB



San Joaquin Geological Society 2022 PSAAPG Scholarship Awardees

Brian Aguilar

Brian Aguilar is completing his undergraduate degree in Geological Science and Communication at California State University of Bakersfield. He will be graduating in the Spring of 2022 with his B.S. in Geological Sciences and his B.A. in Communication with an emphasis on Digital Media. Brian decided to study geology after he took a historical geology class with Dr. Chris Benker at Bakersfield College. During this class, Brian was invited to attend a field trip to Zzyzx Desert Laboratory where he developed an interests in geology and how it is applied from local to regional scale. Brian is interested in mineralogy/geochemistry and planetary sciences because he has always been interested in the formation of the stars and the chemical interactions that take place within the cosmos. Brian's plan is to obtain his doctorate in planetary geology or related field so that in the future, he may be able to conduct research of his own.



Prabhjot Singh Dhillon

Prabhjot Singh Dhillon "Raj," is currently a senior at CSUB pursuing a bachelor's degree in Geology and graduating this May. Apart from studies, Raj loves and enjoys spending time with family, trying different cuisines, reading, traveling, and hiking. Raj's Interest in Geology developed from enjoying outdoor activities, love for nature, and being fascinated about how everything came into existence and formed. "I am very captivated in learning more about Environmental and Petroleum Geology. My plan after graduation is to work fulltime for a petroleum company and grow in my career as a Geologist."



Michael Hernandez

Michael Hernandez is a senior at the California State University of Bakersfield where he is majoring in geological sciences. His interest in geology began when he enrolled in CSUB's physical geology course during his senior year of high school. Last summer, Michael interned with Southern California Earthquake Center, researching surface fractures from creeping faults. He is currently working at Chevron as a Well Analyst creating subsurface wellbore diagrams. Michael aspires to pursue a career by obtaining a master's in engineering geology to identify geologic hazards that may impact construction projects."



Conner Lesh

"Geology was first introduced to me by my grandma who I would accompany to collect cool rocks for her rock garden when camping. I never thought about how these rocks formed until I was at Bakersfield College with no idea what I really wanted to study. I chose Geology because of my interest in cool looking rocks and fossils and the fact that I knew since I was young that I wanted to study a science related subject. Geomorphology and surface processes have become my favorite aspect of geology and I decided to combine that with my lifelong interest in astronomy which has led me to planetary geology. After I graduate with my bachelors degree, I plan to enter a PhD program in planetary geology to study surface processes on Mars and hopefully the Icy Moons as well."



Tara Bonas

Tara Bonas is a current undergraduate at CSU Bakersfield. She became interested in geology at a young age when her dad would take her to museums and buy her geodes to break open at home. Tara will be graduating with a B.S. in Geological Sciences in the Spring of 2022 and especially enjoys studying geochemistry, hydrogeology, and petrology. After graduating, she would like to pursue a graduate degree that focuses on her areas of interest.



Hector Zavala

Hello, My name is Hector Abrahan Zavala and I am a graduating senior from CSU Bakersfield. I am a first generation college student from the Arvin-Lamont area where I grew up for most of my life. I've always been interested in the sciences and recently have been combining my love of the sciences and arts into graphic design and how to present information visually for the average audiences. I have always been interested in the sciences since childhood, mostly to do with astronomy and chemistry. But I also had a huge love for art during high school, so I entered CSUB as a Studio Art major and focused on taking mostly all of my General Education requirements instead of starting my major requirements. During that first year of college I entered a science class which was GEO 1009 with David Miller, who was a wonderful lecturer and made it easy to fall in love with the subject of geology. After that, I decided to switch my major to geology and have been following it ever since. There hasn't been one time in my academic career where I've reconsidered my decision to study geology! And turns out, art knowledge has been helpful with describing and identifying rock units when in the field!



At the moment the aspects of geology that I find really interesting or important to me are hydrogeology and geophysics; I took wonderful classes with Dr.Crewdson and Dr.Song, and found that both these areas of geology both meaningful to me, but as well entertaining to learn about. Namely, I have been wanting to learn more about groundwater reservoirs as well as groundwater contamination.

After graduating and receiving my degree, I want to go straight into the workforce and hopefully pursue a career with hydrogeology in either groundwater or environmental work. I do have a desire for pursuing a master's degree but until I can find a program, as well as a way to pay for my master's degree, I will mostly be sticking to my career. On a side note though, scientific communication is a skill that I want to pursue as well. Hopefully throughout my career I can have opportunities to share geology and other science to the general public in an easily digestible, and engaging manner.

Also, my current plans are to attend the University of Missouri, Columbia (Mizzou) for their field camp in Lander, Wyoming during the summer.

From the AAPG Explorer, July 2022

Toshimia Fujikawa is the Foundation's 2022 Teacher of the Year

Vern Stefanic, AAPG Foundation Communications

Toshimi Fujikawa, a geology teacher in San Lorenzo, Calif., who has been praised by her peers for passionately helping students to discover knowledge and relevance in the geological world where they live, has been named the 2022 AAPG Foundation's Teacher of the Year.



The honor arrives as she recently completed her fifth year of teaching geology at Arroyo High School, where she leads five sections of geology – a year-long course comprising mostly 10th-graders in classes of up to 36 students.

Fujikawa's selection is a milestone of note for the Foundation's TOTY initiative – she is the program's 25th recipient.

"I am honored to be chosen ... (and) I am passionate about teaching my geology class about California Bay Area's regional geology," Fujikawa said in response to her selection as this year's top geoscience teacher.

The honor comes with a \$6,000 prize from the AAPG Foundation to be split between Fujikawa and Arroyo High School – half of which is for the teacher's personal use, the other half for the school to use under Fujikawa's supervision.

She also will receive an expense-paid trip to this year's SEG-AAPG International Meeting for Applied Geosciences and Energy, set Aug. 28-Sept. 2 in Houston, where she will be recognized and featured during the All-Convention Luncheon.

Supporting geoscience education – and promoting the legacy of how geoscience informs, inspires and provides a lifetime of awareness of the Earth's dynamics – are at the core of the AAPG Foundation's mission.

"Funding programs that promote and celebrate geoscience education is a major part of what we do at the AAPG Foundation," said Foundation Chair Jim McGhay. "Today's geoscience teachers are doing amazing work in their classrooms and inspiring the next generation of geoscientists, and we're proud of our role in supporting their efforts."

"We're proud and excited, too, to add Toshimi to the list of TOTY recipients," he added. "She's a wonderful example of a geoscience teacher who brings creative approaches and inspiring insights to her students each day."

A Place of Importance

Fujikawa received a bachelor's degree in geology from the University of California-Davis in 2007, then her geoscience teaching credentials and master's degree in educational/instructional technology from California State University-East Bay.

Her first experience in teaching came as student teacher at Arroyo High School in 2016, and she's been on staff at the school since June 2017.

The recent master's degree reflects her intent "to make geology more accessible to all of my students by providing them with a variety of tools to deepen their understanding," she said. "With the COVID-19 pandemic and schools going into distance learning, it has become even more imperative that teachers use technology to enhance students' learning.

"I want to continue growing and improving in my teaching practices to give students a positive learning experience."

Still, there's nothing like the real thing – and when it comes to geology, Fujikawa loves – loves – the real thing.

"Students see in her an independent, curious, passionate scientist who is excited by discovery," said Arroyo Assistant Principal Shelly D. Fields, "and totally jazzed about rocks."

Hence, taking advantage of her California setting – and keying into her students' awareness of their geological environment – is at the heart of her teaching focus.

And why not? That's exactly how she first fell in love with geology.

"My students are surrounded by a wide range of fascinating tectonic activity and an abundance of natural resources," she said. "Geology not only affects the environment that surrounds them, but also is paramount in understanding the natural resources that make the things they use in their everyday lives."

In fact, Fujikawa's love of geology started when she was a young student herself, on family vacations.

"I grew up visiting places like Yosemite National Park, the Grand Canyon and Yellowstone during summer breaks," she said, "(and) the more I visited Yosemite, the more I wanted to learn about the amazing formations and the processes that made the beautiful landscape."

But her awareness of the impact and importance that geology has on everyday life came from growing up in the California Bay Area, near the seismically active San Andreas and Hayward faults.

"My first exposure to learning about plate tectonics happened in my sixth-grade class," she said. "My teacher, Mrs. Johnston, took us on a field trip to the Oakland Hills and demonstrated plate tectonics using plexiglass covered in cake frosting and candy.

"That experience inspired me to continue learning about geology," she said.

It also led to a teaching philosophy that strives to “provide students an opportunity to learn about Earth’s materials and processes in a hands-on, collaborative environment in order to have a broader view of the earth and the impact they have on their own lives,” she said.

“I believe that students should have engaging lessons with hands-on experiences,” she added. “Every unit starts with a phenomenon to connect concepts to events or objects that occur in the real world. Each concept that I teach has activities and labs to apply their knowledge, deepen their understanding and relate geologic concepts to their everyday lives.”

Course units include:

- Plate Tectonics.
- Minerals and Earth Materials: Geochemistry
- Igneous Environments and Rocks
- Sediments and Their Environments
- Metamorphism and Structural Geology
- Earthquakes and Earth’s Interior
- Climate Change

It’s a comprehensive class, taught with a creative and often very entertaining flair.

“Toshimi is passionate about geoscience ... student-centered, focused on what her students need instructionally and emotionally,” Fields said.

“Toshimi is able to connect with kids and make their time learning geology a positive and transformative part of their school experience,” she added. “I can’t wait to see what she does next.”

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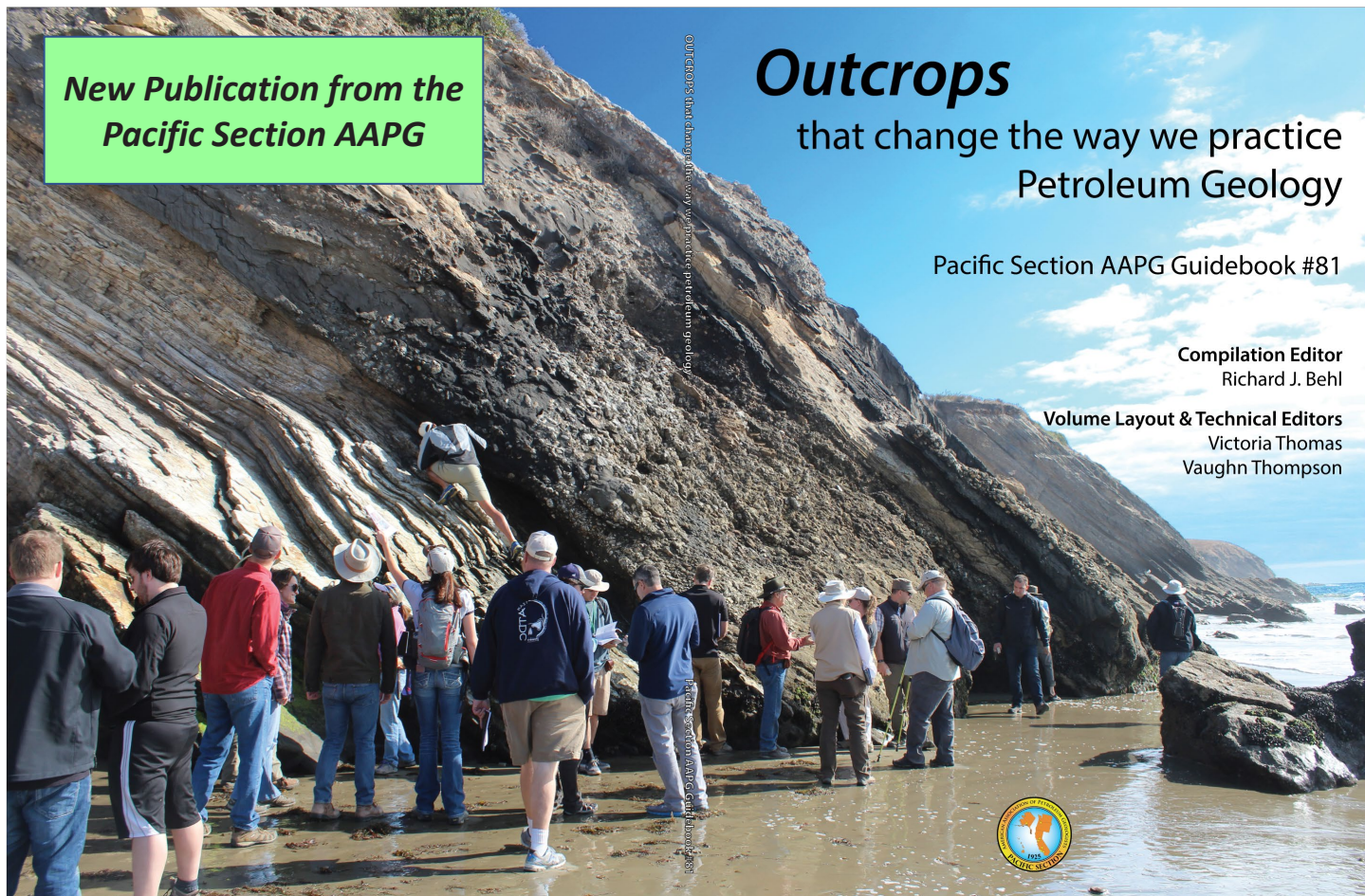
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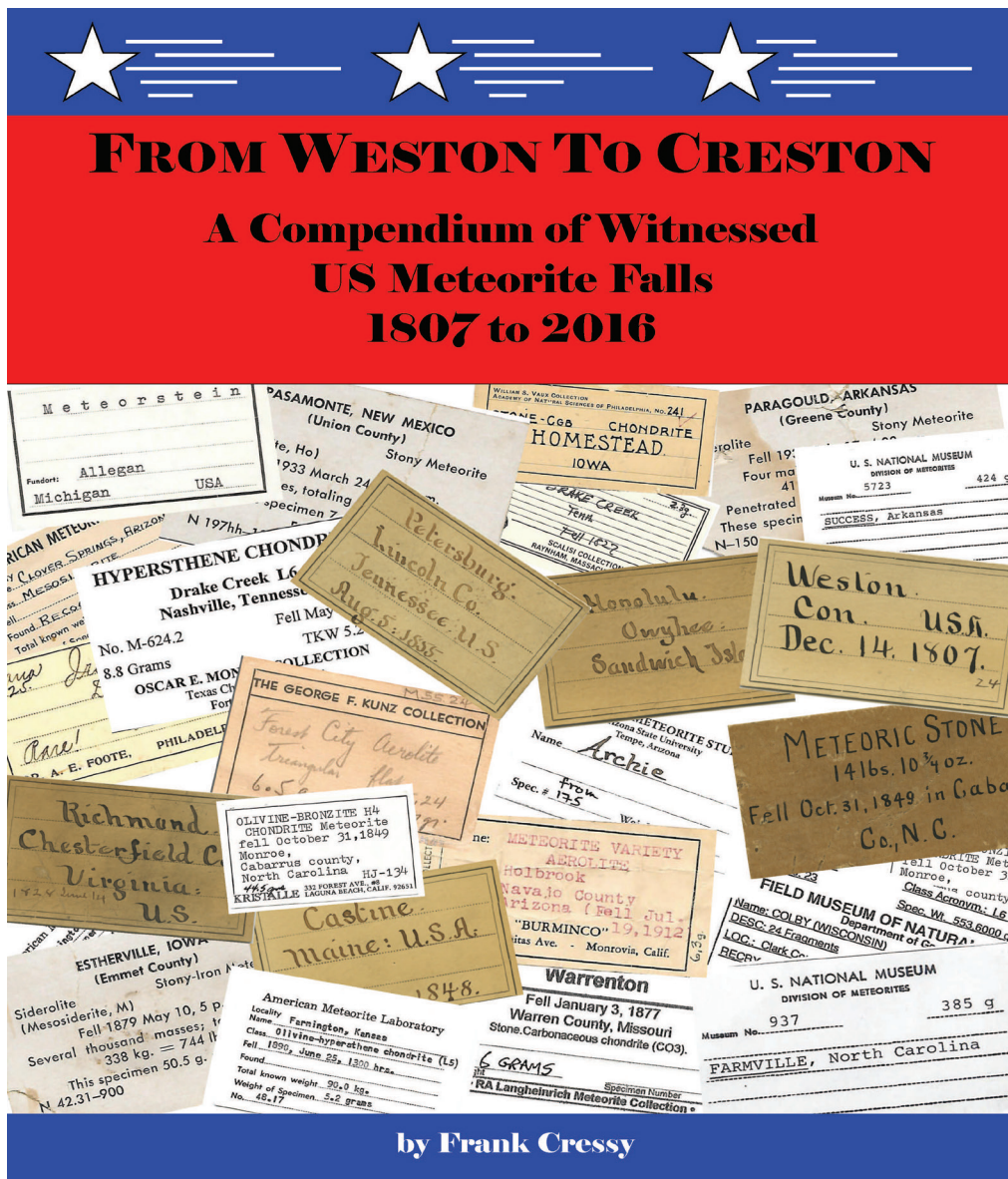
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by Frank Cressy

The violent display of blazing light and explosive sounds ending with meteorites crashing to the ground is an unforgettable event to those who witness it firsthand. This book summarizes the fall histories of nearly 170 witnessed meteorite falls that have occurred in the United States since the first documented fall at Weston, Connecticut in 1807. It is written not only for the collector of these rare objects, but also for those interested in the history and the growth of the branch of science known as Meteoritics. The accounts of the fall phenomena and recoveries associated with these extraordinary events are the focus of the book. However, the book is more. The reader will learn about those individuals responsible for the growth of the science and their contributions, together with interesting facts and coincidences about these visitors from space; 257 pages with over 300 color photos plus maps, figures and illustrations.

Soft Cover books \$36.00; for ordering, contact: fcressy@prodigy.net



Member Society News

Alaska Geological Society
www.alaskageology.org

P. O. Box 101288
Anchorage, AK 99510

Check the website for the latest information on monthly meetings.

Check the website for updated information.

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President-Elect:	Sarah King	
Vice-President:	Ben Rickards	
Secretary:	Heather Beat	Heather.a.beat@gmail.com
Treasurer:	Corey Ramstad	cramstad@hilcorp.com
Past-President:	Andy Dewhurst	Andrew.Dewhurst@conocophillips.com

Coast Geological Society
www.coastgeologicalsociety.org

P. O. Box 3055
Ventura, CA 93006

In-person meetings are the third Tuesday of the month and start at 6:30 pm.

President:	Renee Richards	president@coastgeologicalsociety.org
Vice President:	Jerry Nichols	vicepresident@coastgeologicalsociety.org
Secretary:	Justin Brochert	secretary@coastgeologicalsociety.org
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Webmaster/Tech Support:	John Abeid	webmaster@coastgeologicalsociety.org
Scholarship	Eiko Kitao	scholarship@coastgeologicalsociety.org
Logistics:	David Arellano	logistics@coastgeologicalsociety.org

Los Angeles Basin Geological Society
www.labgs.org

Virtual meetings continue at 12:00 noon the fourth Thursday of the month. Go to the LABGS web site for the link to join the meeting.

Check the website for information on the next talk.

President:	Scott Prior	figmo7@gte.net
Vice President	Nate Busch	NBusch@marathonpetroleum.com
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Secretary:	Joseph Landeros	landerosjd@gmail.com
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Webmaster	Joseph Landeros	landerosjd@gmail.com
Past-President:	Bert Vogler	hvogler@kleinfelder.com

(Continued on next page)

Northern California Geological Society
www.ncgeolsoc.org

803 Orion #2
Hercules, CA 94547-1938

Virtual meetings held via ZOOM at 6:30 pm on the fourth Wednesday of the month. Go to ncgeolsoc.org for more information.

President:	Noelle Schoellkopf	NoellePrince @ sbcglobal.net
President-elect:	Jim O'Brient	
Past President:	Tom MacKinnon	tom.mackinnon@comcast.net
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Program Director:	Jim O'Brient	
Website Editor:	Andrew Alden	geology @ andrewalden.com

Northwest Energy Association
www.nwenergy.us

P. O. Box 6679
Portland, OR 97228

Contact:
Jim Jackson or John Armentrout

No activities are planned at this time. Check the website for the latest information.

President	Chris May	c.law.may@gmail.com
Vice-President	Steve Pappajohn	
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Co-Treasurer	Jim Jackson	jackson.js@comcast.net
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Sacramento Petroleum Association

P. O. Box 1844
Folsom, CA 95630

Contact: Pam Ceccarelli
916-439-0400

As of October 2021, in-person meeting have resumed at the Club Pheasant in West Sacramento. Meetings are held at noon on the third Wednesday of the month.

President:	Jerry Reedy	JWR5532@aol.com
Vice-President:	Scott Hector	Scott.Hector@gmail.com
Secretary	Derek Jones	djones@gasbiz.com
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(Continued on next page)

San Joaquin Geological Society
www.sanjoaquingeologicalsociety.org

P. O. Box 1056
Bakersfield, CA 93302

Contact: Mark Korte-Nahabedian
marknahabedian@gmail.com

The SJGS is planning their Fall Fiesta for Friday, September 23rd at Cynthia and Dan's house. The first dinner meeting of the year will be October 11th.

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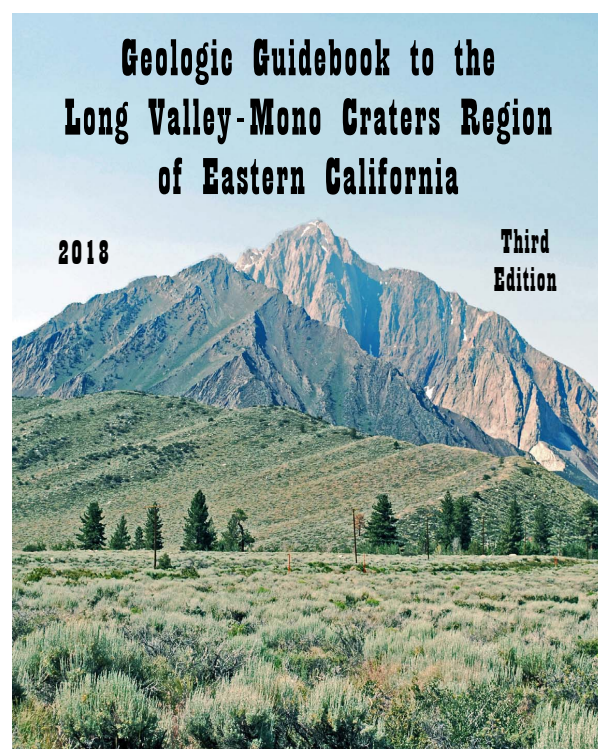
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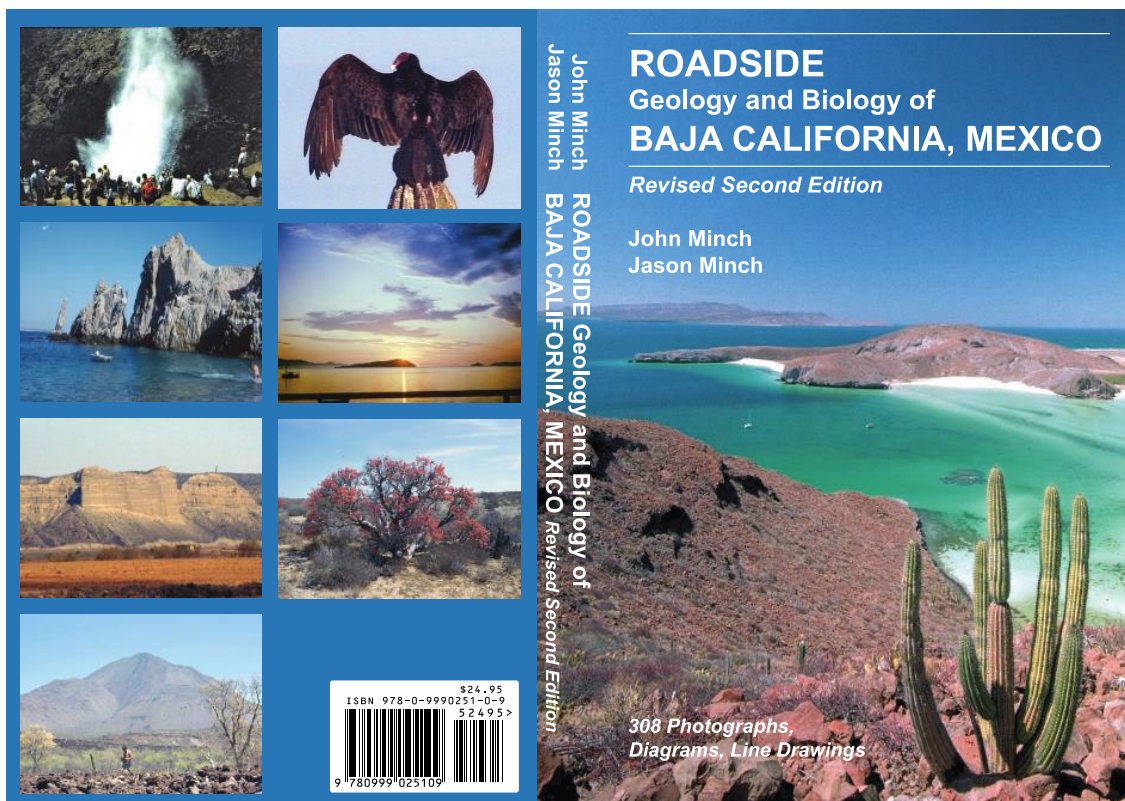
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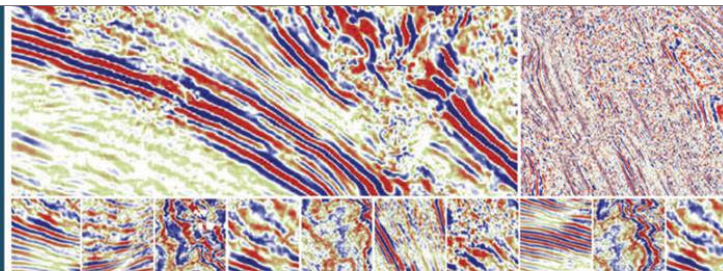
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