San Joaquin Geological Society

Date: **Tuesday, November 11th, 2014**
Time: **6:00 PM Social Hour**
7:00 PM Dinner
8:00 PM Lecture
Place: **Petroleum Club**
5060 California Ave, 12th Floor
Bakersfield, CA 93309

PSAAPG Members & Mesozoics
$25 w/ reservation
$30 without reservation

Non PSAAPG Members
$30 w/ reservation

Full-time Students with ID:
Free, Courtesy of Chevron & Occidental

*** *RSVP* ***
By: 7AM, Friday, Nov. 7th, 2014
*** *No reservations will be accepted after* ***

Reply to this email
or by phone 428-8528
or PayPal on the Website:
http://www.SanJoaquinGeologicalSociety.org/

Please be advised

The Role of Climate, Oceanography, Tectonics and Environment in Mudstone Deposition on the Miocene to Quaternary California Margin

Richard Behl
Department of Geological Sciences, California State University, Long Beach 90803

ABSTRACT

Fine-grained sedimentary deposits - mudrocks - are a mystery. Sandstones and carbonates, with their bold and exciting sedimentary structures, grainsize variations and macrofossils are easier to investigate and understand for most geologists. But mudstones, shales and the related fine-grained biogenic rocks - diatomite, porcelanite, chert, and marl, etc. - make up 2/3's of all sedimentary rocks. How can we ignore them? Because they are generally deposited in deeper, lower-energy environments, they hold the most complete and continuous records of Earth history, but specialized approaches must be taken, giving rise in importance to chemostratigraphy, isotope stratigraphy and the flourishing fields of paleoceanography and paleoclimatology.

We have learned much about the climatic, oceanographic, and tectonic evolution of the California Margin from mud and mudrocks. This presentation will be a walk through some of the "greatest hits" of the past 15 million years along the California margin, combining results from onshore and offshore studies. Among these are Miocene responses to global cooling and growth of the Antarctic ice sheet and tectonic reorganization of the margin's shoreline and bathymetry; influence of Miocene-Pliocene compressive tectonics on sediment distribution and composition; and Quaternary rapid warming events, fluctuations in the oxygen minimum zone along California, ecosystem overturn, influences of volcanic eruptions, and climatic control of episodic natural oil and gas venting from the seafloor.

BIOGRAPHY

Richard J. (Rick) Behl is Professor of Geological Sciences at California State University Long Beach, and Director of the MARS Project (Monterey And Related Sediments). Behl earned his Bachelor's degree from UC San Diego and a PhD at UC Santa Cruz. His expertise is in sedimentary petrology and sedimentary geology, particularly the climatic, oceanographic, and tectonic evolution of the California margin. He has written more than 45 peer-reviewed, scientific articles and one controversial book. Behl and his students have made more than 130 conference presentations at regional through international conferences. Behl has led dozens of field trips for professionals and frequently consult for industry. He was recognized as AAPG Distinguished Lecturer in 2003-2004, Distinguished Educator of the AAPG-Pacific Section in 2010, Fellow of the Geological Society of America in 2012, and Honorary Membership in Pacific Section SEPM. Most recently, Rick is proud to be the recipient of the 2014 "Pretty Darned Good Professor" Award of CSULB's College of Natural Sciences and Mathematics.

SJGS WEBSITE

http://www.SanJoaquinGeologicalSociety.org/

SJGS OFFICERS

PRESIDENT
Anne Draucker
Chevron
AnneDraucker@chevron.com

VICE PRESIDENT
Greg Gordon
Aera
gsgordon@aeraenergy.com

SECRETARY
John Abeid
Chevron
428-8528
John.Abeid@chevron.com

TREASURER
Corine Armstrong
Chevron
Corine.Armstrong@chevron.com

PRESIDENT-ELECT
Ariel Auffant

PAST-PRESIDENT
Laura Bazeley