

Inland Geological Society

May 2018

Newsletter of the Inland Geological Society

Volume 34 No. 5

Next Meeting:
**Thursday
May 10th**

Time:
**Social: 6:00pm
Dinner: 7:00pm
Lecture: 7:30pm**

Location:
**Old Spaghetti
Factory
3191 Mission Inn Av.
Riverside, CA 92507
(Map on Pg. 7)**

Coming to
Dinner?
**Please RSVP
to Jessie Bagby
by Friday, 5/4
rsvp.igs@gmail.com**

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**May Meeting: Joint Meeting with
the Society for Mining, Metallurgy, and Exploration,
the Association of Environmental & Engineering Geologists,
and the Inland Geological Society**

Robert Kistler, Head of Exploration Department (retired), U. S. Borax, and
William Pennell, Director of Exploration of Industrial Minerals (retired), Rio Tinto

The History of U. S. Borax in the California Desert and Beyond

Abstract:

From the early 1880's, shortly after the discovery of borate minerals in western Nevada's Teel's Marsh, U. S. Borax and its predecessor companies developed economic methods of extracting and processing ores, and transporting and marketing borate products, from the deserts of California. Through the 20th century, operations in and near Death Valley and the Mojave Desert mined the most common calcium borate (colemanite), sodium-calcium borate (ulexite), and sodium borate (borax and kernite) minerals from near surface deposits (e.g., at Harmony in Death Valley), underground mines (e.g., Calico, Lila C, Ryan), and a large open pit (at Boron). Transportation evolved from hand carts and the iconic Twenty Mule Team, through steam-engine tractors and trains, to dedicated ocean-going vessels serving worldwide markets. Borates are used in a wide range of applications including fertilizers to food preservatives, specialty glassware to fiberglass, and insecticides to household products. In the 21st century, "The Borax Company" continues to provide high-quality products serving its traditional global markets as well as the future's high-tech needs.

(continued on p. 2)

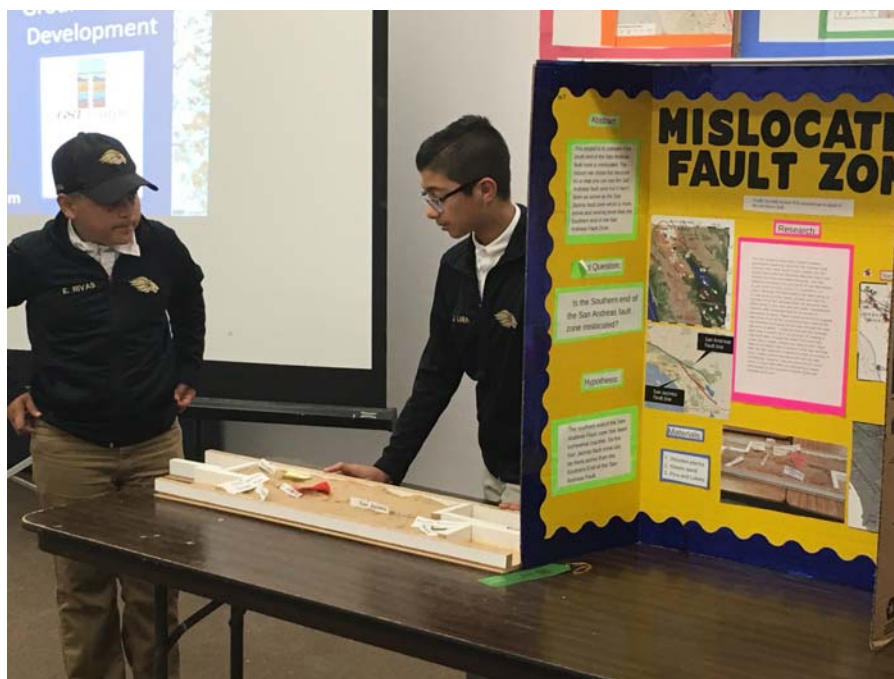
(continued from p. 1)

Biography:

Bob Kistler and William Pennell had long careers with U. S. Borax. Bob started as a geologist at the Boron mine, served for many years as Chief Geologist, and retired after 37 years as head of the Exploration Department. Bill began as an Exploration Geologist searching for borate deposits in the Mojave Desert, and 20 years later retired as the Director of Exploration of Industrial Minerals for Rio Tinto, U. S. Borax's corporate owner. Both were involved with such discoveries as Quartz Hill Molybdenum (Bob) in southeastern Alaska and the Jadar Lithium/Borate deposit (Bill) in Serbia.

April Science Fair Presentation

At the April IGS Meeting, **Joel Lara** and **Edgar Rivas**, 7th Graders at San Jacinto Leadership Academy, presented their Riverside County Science and Engineering Fair poster on their hypothesis that the San Jacinto fault is actually a misidentified modern southern branch of the San Andreas fault. They also developed a nice demonstration table about strike slip faulting using kinetic sand. Joel and Edgar were awarded a \$100 prize for their poster and presentation during the science fair. If they choose to continue their research, they have been invited back to preview their findings prior to the next science fair.



Edgar Rivas (left) and Joel Lara demonstrate strike slip faulting at the April IGS Meeting.

AGI Announces 2018 Harriet Evelyn Wallace Scholarship Recipients

ALEXANDRIA, VA – The American Geosciences Institute (AGI) congratulates Master's student Anna Stanczyk and doctoral student Nicole Shibley as the 2018 recipients of the Harriet Evelyn Wallace Scholarship. This highly competitive scholarship, which is awarded to women pursuing graduate degrees in geoscience, provides a \$5,000 award for one academic year. Wallace Scholars who are continuing their graduate studies are eligible to apply for the award a second time.

Anna Stanczyk (*University of Utah*) is a Master's student at the University of Utah studying rock avalanches. Her current research is a multidisciplinary investigation of an ancient valley-blocking rock avalanche deposit in the natural laboratory of Hop Valley, Zion National Park. Her study fuses geological engineering, geochronology, geomorphology, and stratigraphy to clarify the occurrence and impacts of rock avalanches in areas of restricted topography. It also takes a unique step beyond the geosciences by investigating archaeological implications of a flat-bottomed valley in otherwise steep terrain.

Nicole Shibley (*Yale University*) is a Ph.D. candidate at Yale University studying the dynamics of the Arctic Ocean. Her current research combines theory and observations to investigate ocean mixing processes that are responsible for vertical heat fluxes towards the overlying sea ice cover. She hopes that this research will contribute to a better understanding of the Arctic Ocean's influence on sea ice and Arctic climate. Her research is supported by the Department of Defense through the National Defense Science and Engineering Graduate Fellowship Program.

The Wallace Scholarship is celebrating its sixth year supporting women geoscientists in graduate school. The original bequest was given by Harriet Evelyn Wallace, who was one of the founding members of the Geoscience Information Society (GSIS), a national organization and AGI Member Society that facilitates the exchange of information in the geosciences. The scholarship is awarded to the top applicants who most demonstrate a strong likelihood of successfully transitioning from graduate school into the geoscience workforce. To learn more, go to <https://www.americangeosciences.org/workforce/harriet-evelyn-wallace-scholarship>.

To make a tax-deductible donation to support rising women geoscientists through the Wallace Scholarship Fund, go to <https://bit.ly/GeoWomen>.

AGI is a not-for-profit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

The American Geosciences Institute represents and serves the geoscience community by providing collaborative leadership and information to connect Earth, science, and people.

Registration is now open for the
Joint Meeting of the GSA Rocky Mountain and Cordilleran Sections
 May 15-17, 2018
 at the Double Tree by Hilton Hotel and Conference Center, Flagstaff, AZ

For additional information regarding registration and accommodations, visit the website at
https://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/rm/2018mtg/home.aspx

Webinar Featuring
Vincent P. Drnevich, P.E., Ph.D.,
 Emeritus Professor of Civil Engineering, Purdue University



Ethics, Integrity and the Law for Geoprofessionals

May 9, 2018

Part 1: Ethical Decision Making with Integrity

May 16, 2018

Part 2: Statutes and Rules of Professional Conduct

Take a gigantic step toward solid leadership by recognizing ethical crossroads.



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Abstract submission is now open for the **7th International Conference on Debris Flow Hazards Mitigation**. This conference will be held in Golden, Colorado, from June 10-13, 2019. With the beautiful Rocky Mountains covering half the state, Colorado shares the problem of debris-flow hazards with other mountainous areas of the world. Against this backdrop, scientists, engineers and policy makers from around the world will be able to share new research and ideas in the field of debris flows.

In addition to technical and poster sessions, field trips will be run both before and after the meeting. Proceedings will be published as an AEG special publication; proceedings from previous conferences are highly respected and widely cited.

Abstract submission details are available at <https://dfhm7.csmospace.com/papers.html> and more details about the event are available at <https://dfhm7.csmospace.com/>.

Earthquake Hazards Search just got easier

California Geological Survey unveils web application to help public locate Earthquake Hazard Zones

The California Earthquake Hazards Zone Application is an online map that allows anyone with a computer, tablet or smartphone to conveniently check whether a property is in an earthquake hazard zone. With this tool, you can type in an address or use the location capability of your computer or mobile device to determine whether a property lies within any of CGS's mapped earthquake hazard zones. It will also tell you if CGS has not yet evaluated the hazards in that area. For more information, visit the website at:

http://www.conservation.ca.gov/cgs/Pages/SH_EQZ_App.aspx

Employment Opportunity

Mojave Water Agency

The Mojave Water Agency has an opening for a Water Resources Hydrogeologist. This is an exempt, journey-level position requiring working independently and exercising judgment and initiative. Applicants will receive only occasional instruction or assistance as new or unusual situations arise and must be fully aware of operating procedures and policies of the work unit. Applications will be accepted until Wednesday, April 25, 2018 at 5:30 pm. For more information, visit the website at:

<https://www.mojavewater.org/employment.html>

Upcoming Meetings/Events

Inland Geological Society

The Inland Geological Society typically meets the first Wednesday or Thursday of each month. The June meeting speaker will be Brian Castillo, a grad student at CSUSB. For more information, visit our website at www.inlandgeo.org.

South Coast Geological Society



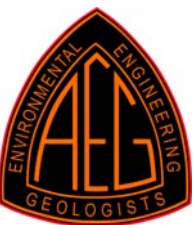
Monthly dinner meetings are typically the 1st Monday of the month. The May meeting has not been announced yet. For more information, visit the association website at www.southcoastgeo.org.

AEG—Southern California Section



The next meeting of the AEG—Southern California Section has not been announced yet. For more information, visit the association website at www.aegsc.org.

AEG—Inland Empire Chapter



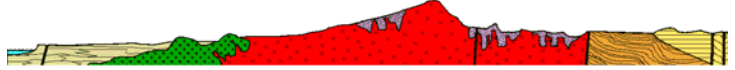
Monthly dinner meetings are typically the third Wednesday of the month at Pinnacle Peak Steakhouse, 2533 S. La Cadena Drive, Colton. The May meeting will be the combined meeting with IGS (see pg. 1). For more information, visit the association website at www.aegsc.org/chapters/inlandempire.

www.aegsc.org/chapters/inlandempire.

Rock & Gem Shows—various locations

Various rock and mineral shows will be held throughout southern California. To find one near you, visit www.rockngem.com, then select the Show Dates tab.

San Diego Association of Geologists



Meetings are usually held the third Wednesday evening each month. The May meeting, however, is planned for May 9th. The speaker will be Monte Marshall. For more information, visit the association website at www.sandiegogeologists.org.

Los Angeles Basin Geological Society



Monthly lunch meetings are typically the 4th Thursday of the month from 11:30 am to 1:00 pm at the Willow Street Conference Center, 4101 E. Willow Street, Long Beach. The next meeting of the Los Angeles Basin Geology Society will be held on Thursday, April 26th. The speaker will be Benjamin Hagedorn, PhD, presenting "Stressed Watersheds of the US Southwest: Results from Baseline Hydrogeologic Studies of Catalina Island and the South Coast Range." For more information, visit the association website at www.labgs.org.

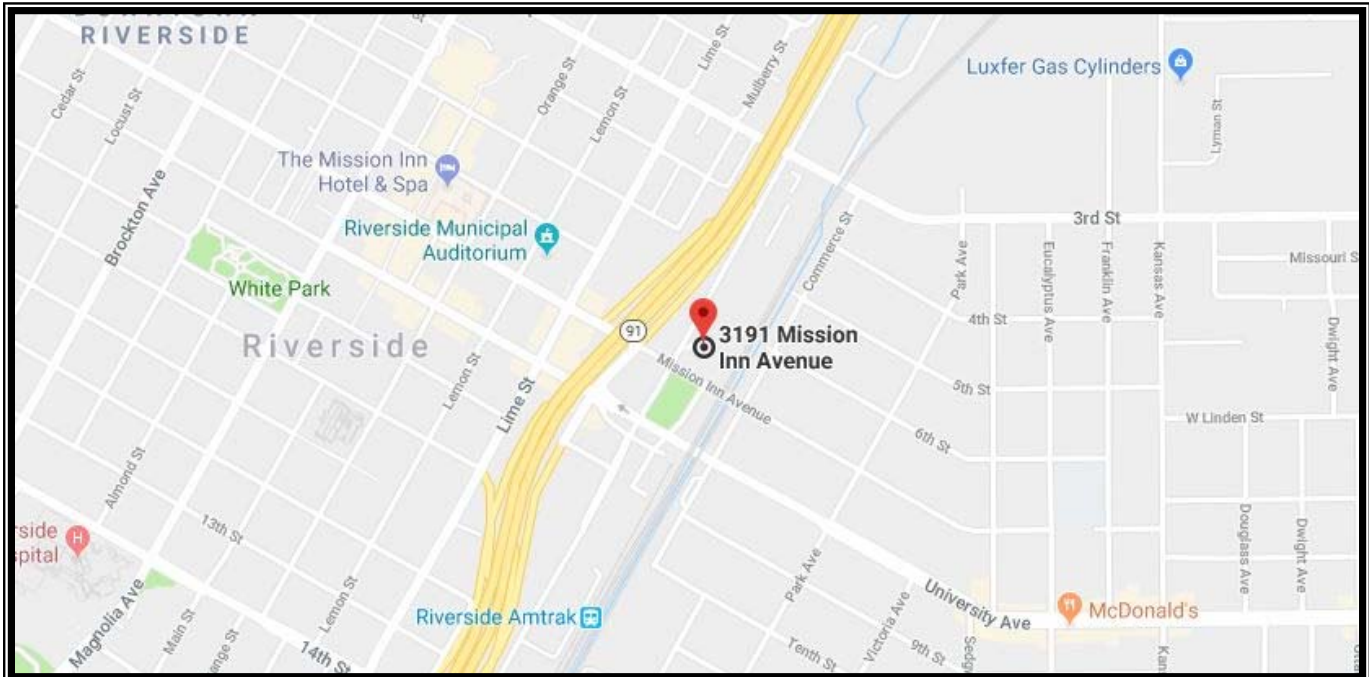
Get Your IGS Coffee Mug!

IGS will now be selling IGS coffee mugs at the monthly meetings. They will be on sale for \$10.



IGS MEETING LOCATION:

Old Spaghetti Factory
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 Riverside, California 92507

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