

Inland Geological Society

October 2015

Newsletter of the Inland Geological Society

Volume 31 No. 10

Thursday,
October 8th

Time:

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

Location:

LSA Associates
1500 Iowa Ave
Suite 200
Riverside, CA
92507

(Map on Pg. 4)

Coming to
Dinner?

Please RSVP:

By Monday 10/5
(909) 227-7704
Baircrystal@ca.rr.com

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October Speaker:

Ms. Shelby Barker, PG

Project Manager and Hydrogeologist, AECOM, Ontario, CA and
Part-time Instructor, University of Phoenix, Southern California Campus and
California State University, San Bernardino, Department of Geological Sciences

Former Gas Station in Riverside: Small Sites Can Keep You On Your Toes Too

Abstract

Many people have told me over the years that working on small sites is not exciting and not worth their time. A half-acre site can't be that challenging, right? In this presentation, I will discuss the challenges associated with a former gas station site in Riverside, California. Since 1997, assessments at this site have resulted in 29 on- and off-site groundwater monitoring wells, 13 air sparge (AS) wells, 13 vapor extraction wells, 22 soil vapor wells (ranging from single-nested to quadruple-nested), 13 membrane interface probe (MIP) locations, and numerous soil boring locations to assess the lateral and vertical extent of hydrocarbon impacts. There was also a series of risk assessments near a Montessori school with oversight from the Santa Ana Regional Water Quality Control Board and the State of California, Department of Toxic Substance Control (DTSC). Remediation at this site was accomplished by free product removal utilizing hand bailing and passive skimmers, surfactant injection in off-site wells, and a soil vapor extraction (SVE)/AS system. Challenges at this site have included unique vadose zone conditions that contribute to a SVE system creating its own benzene despite the influent having

(Continued on page 2)

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non-detect concentrations, heaving sands, LNAPL upgradient of the source area, and tetrachloroethene (PCE) that ultimately opened another case nearby. Just because a site is small, doesn't mean it won't have it's own set of challenges!

Biography:

Ms. Shelby Barker received a bachelor of science in geology (environmental geology option) from California State University (CSU), San Bernardino (CSUSB) and a master of science in geology from CSU, Fullerton. She is currently a project manager and hydrogeologist for AECOM in Ontario, CA where she manages a number of active and former retail gas station sites with hydrocarbon impacts for a large oil-gas company as well as assists with various industrial, commercial and federal projects. In addition to her career at AECOM, Ms. Barker has found a passion in teaching. Since 2012, she has been a part-time instructor at the University of Phoenix, Southern California Campus teaching courses in math, geology and environmental science. She has been a part-time instructor at CSUSB, department of geological science since January 2015 teaching (or scheduled to teach) geology 101 labs and upper-division courses in hydrology and engineering geology. Ms. Barker is a California-licensed Professional Geologist and will be taking the California Certified Hydrogeologist exam in October 2015.

2016 Cordilleran Section of GSA meeting

The 2016 Cordilleran Section of GSA meeting will be April 4-6 in the Ontario Convention Center. Dr. Joan Fryxell, geology professor at CSUSB, is the Exhibits and Sponsorships Chair. If you and/or your company are interested in a booth at the meeting, or are interested in underwriting part of the meeting in the form of a sponsorship, please get in touch with Dr. Fryxell at jfryxell@csusb.edu and/or (909) 537-5311. They are confirming with GSA Headquarters that the application forms are as they should be, but they will be posted soon on the meeting web page: <http://www.geosociety.org/sections/cord/2016mtg/>

Student Presentations: Format and Deadlines

Students who wish to give a poster and/or oral presentation of their projects must submit a biography and abstract by the 10th of the month prior to the month of presentation.

Abstracts and biographies must be in the following format:

- a. Limit biography and abstract to 500 words or less each.
- b. Formats must be in arial font, 11 point and submitted as a word (.doc), text (.txt) or PDF (.pdf) document only.

All presentations should be limited to 7 to 10 minutes in length followed by 5 minutes for questions and answers. Please submit your information to Jeff Fitzsimmons at geojeff08@att.net.

Upcoming Meetings/Events

Rock & Gem Shows—Various locations

Various rock and mineral shows will be throughout So. California. To find one near you, visit www.rockngem.com/showdates.asp

AEG—So. California Chapter Meeting



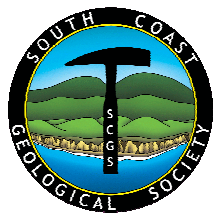
The next meeting info has not been announced. For more info., visit the So. California Chapter at www.aegsc.org/calendar/.

AEG—Inland Empire Section Meeting



AEG—Inland Empire Section meeting information has not been announced. For more info., visit www.aegsc.org/chapters/inlandempire/.

South Coast Geological Society Meeting



SCGC has not announced their October meeting. For more info., visit SCGS on Facebook and/or www.southcoastgeo.org.

Los Angeles Basin Geological Society

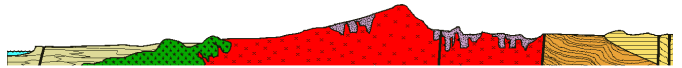


LABGS has not posted their October meeting; however, it's generally the 4th Thursday of each month. Visit their website for more info. (www.labgs.org).

Groundwater Resources Assoc. of CA

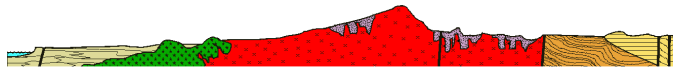
GRAC's "Naturally-Occurring Compounds of Regulatory Concern Symposium" on **Nov. 18-19, 2015** at the Anaheim Marriott Suites in Garden Grove. Visit their website for more info (www.grac.org).

San Diego Assoc. of Geologists Meeting



Tom Rockwell will be presenting a talk on the "Coyotes Mountains" at the October meeting. For more info, visit www.sandiegogeologists.org.

San Diego Assoc. of Geologists Field Trip



SDAG will be having a field trip to the Western Salton Trough Regional Tectonics, Coyote Mountains an Vicinity on **Nov. 6-8, 2015**. For more info, visit www.sandiegogeologists.org.



IGS Meeting Schedule

November 5, 2015 (Wednesday)

Ms. Kathy Racca, State of California, Board of Engineers, Licensed Surveyors and Geologists
TBD

December 2, 2015 (Wednesday)

Ms. Marina West, Big Horn Water District
TBD

November 7, 2015 (Thursday)

Dr. Norman Meek, CSUSB Geography Professor
TBD

IGS MEETING LOCATION:

**LSA Associates, Inc.
1500 Iowa Ave, Suite 200
Riverside, CA 92507**



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