

SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegoeologists.org

SDAG MEETING ANNOUNCEMENT

WEDNESDAY, MAY 19th, 2010

Forensic Hydrology and Chromium Isotopes

Presented by

Dr. John Izbicki
U.S. Geological Survey

Where: Catalina Room (southern end of MVCC) **SEE MAP**
Marina Village Conference Center
1936 Quivira Way, San Diego, CA 92109

When: 5:30 pm – Social Hour
6:30 pm – Dinner
7:15 pm – Program

Directions: FROM INTERSTATE 5: Take the SEA WORLD DRIVE exit. From SEA WORLD DRIVE, take WEST MISSION BAY DRIVE on your right. When you see the large green sign that says QUIVIRA ROAD, get in the farthest left of the two left turn lanes. Turn left, go one very short block and turn left again. Drive about one half mile and MARINA VILLAGE will be on your right.

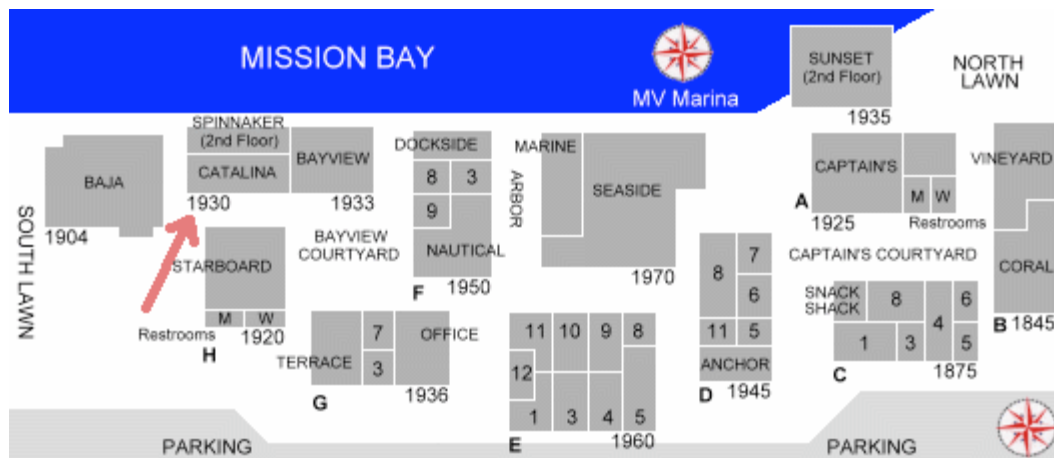
FROM INTERSTATE 8: Take the WEST MISSION BAY DRIVE exit to the right. You will be on INGRAHAM STREET for a short distance from which you will take the next exit marked WEST MISSION BAY DRIVE on your right. When you see the large green sign that says QUIVIRA ROAD, get in the farthest left of the two left turn lanes. Turn left, go one very short block and turn left again. Drive about one half mile and MARINA VILLAGE will be on your right.

Dinner: Renaissance Fare. Beverage station. Dessert. Cash bar.

Cost: \$30 per person, \$5 discount for members, STUDENTS: \$20. Add \$5 if you did not make a reservation

Reservations: Make your reservation **online** at www.sandiegoeologists.org **no later than noon, Monday, May 17th**.

**RESERVATIONS CANNOT BE ACCEPTED AFTER MONDAY AT 12 NOON.
IF YOU DO NOT MAKE A RESERVATION, WE CANNOT GUARANTEE YOU A MEAL.**



2010 SDAG MEETING SCHEDULE - Mark your Calendars!

Meetings are usually on the 3rd Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

June 8 (Tuesday)	Prof. Tom Rockwell: Sierra El Mayor-Cucapah (Easter Baja) Earthquake; Joint meeting with the South Coast Geological Society (SCGS), at the El Adobe in San Juan Capistrano http://www.eladobedecapistrano.com/ .
July 16	Prof. Monte Marshall: Tales of Antarctica and the Southern Seas.
August 18	Rob Hawke: The La Jolla / Mt. Soledad Landslide Repairs

2010 EXECUTIVE COMMITTEE

PRESIDENT – Bryan Miller-Hicks; *Cuyamaca College*; Ph: (619) 733-3724; geobry@aol.com ; bryanmillerhicks@gmail.com

VICE PRESIDENT – Chuck Houser; *SCS Engineers*; Ph: (858) 571-5500; CHouser@scsengineers.com

SECRETARY – Todd Wirths; Ph: (858) 337-0098; todd@wirths.com

TREASURER – Cari Gomes; sdagtreas@sandiegogeologists.org

PUBLICATIONS – Lowell Lindsay; *Sunbelt Publications*; Ph: (619) 258-4911 x111; fax:(619) 258-4916; llindsay@sunbeltpub.com

WEBMASTER – Carolyn Glockhoff; *Caro-Lion Enterprises*; Ph: (858) 549-3396; carolyn@caro-lion.com

SPEAKER BIO

John Izbicki

John Izbicki attended West Virginia University, Penn State, and obtained his Ph.D. from University of California, Riverside. He has worked for the U.S. Geological Survey for more than 25 years in Maryland, Massachusetts, and California. While in California his studies have focused on understanding the physical hydrology of coastal and desert aquifer systems primarily through the application of chemical and isotopic tracers. His first studies were on coastal basins in San Diego County. John holds 2 patents for well-bore flow logging equipment and techniques. Recent work includes studies of 1) natural and artificial recharge process, 2) trace-element contamination, mobility, and treatment, 3) perchlorate source identification, and 4) bacterial contamination of ocean beaches.

SPEAKER ABSTRACT

“Forensic Hydrology and Chromium Isotopes”

Cr (VI) concentrations as high as 200 mg/L were measured in water table wells beneath agricultural fields irrigated with dairy wastewater, near El Mirage, Calif. Are high Cr (VI) concentrations associated with contamination from a nearby chemical milling facility? Did local consultants and State regulatory agencies fail to adequately understand the hydrogeologic setting? Or if we round up the usual suspects (geology, hydrology, chemistry, and microbiology) will we find that they conspired to mobilize Cr (VI) from the unsaturated zone? It is not an open and shut case. Will the suspects be found guilty, innocent, or will it be a hung jury?

PRESIDENTS CORNER, MAY 2010

We are in the midst of spring, and geologic events are still popping up in the news. Not obviously in a positive sense, of course.... we all know that spectacular, dangerous geologic events make news.

The Deepwater Horizon oil rig blowout continues to top most geologic related news; the latest I have read as of this writing is that: *"Some failure of well control permitted a bubble of (methane) gas to surge to the surface, where it ignited and turned Deepwater Horizon into a Roman candle in the night. Moreover, the fail-safe mechanism known as the blowout preventer, a massive stack of valves and pistons that is the most critical hardware in the system, failed to choke the well."* Source: Joel Achenbach, *Washington Post*, 5/9/10. Like all events like this, however, it seems that a chain of problems and miscues led to the occurrence. Rarely is it just one thing. This is the deepest blowout event in recorded history, apparently. Again as of this writing, the containment structure which was supposed to seal off much of the escaping oil has run into problems, possibly related to seafloor methane hydrate crystals.

Again let us recall that there has been a direct human cost; 11 rig workers are missing and presumed dead. The damage and costs to the rich Gulf environment, wildlife, fisheries and wetlands have yet to be realized and tallied.

On the heels of the Easter Sunday Calxico earthquake, we include in this month's newsletter a description of a field trip, led by Dr. Thomas Rockwell. A sizable SDAG contingent of 41 members accompanied Dr. Rockwell.

Finally, the Eyjafjallajokul volcano in Iceland continues to erupt and send ash over parts of Europe, hindering air travel. Recall that May 18 will be the 30th Anniversary of the 1980 eruption of Mt. St. Helens.

Interesting times....

Bryan

2009 and 2010 SPONSORS - THANK YOU!!

Note the new nomenclature for 2010: Sponsors, Corporate Sponsors, and Patrons provide a significant portion of SDGS's and SDAG's operating and scholarship budgets. By making your payments to SDGS (a 501(c)3 public benefit nonprofit educational corporation) you may be able to claim a tax deduction. In addition to monthly recognition for your contribution, you are entitled to additional benefits as listed on the Sponsorship Form included in this newsletter.

Corporate Sponsor	
	<p>H&P Mobile GeoChemistry, Inc. is an industry leading provider of environmental lab services. With ten mobile labs and five direct push sampling trucks and unparalleled experience, H&P's repertoire of environmental lab services includes many forms of environmental lab sampling techniques all the way to on site field analysis services. H&P has successfully and accurately performed environmental lab services delivering quality results to our clients for over sixteen years.</p> <p style="text-align: center;">2470 Impala Dr., Carlsbad, CA 92010 (800) 834-9888</p>
Dr. Pat Abbott, SDSU (Emeritus)	Joe Coronas, SDSU Geo-Alumni Assn.
Tod Clark - Pacific Drilling Co.	Phil Farquharson, CG-Squared Productions
Carolyn Glockhoff , Caro-Lion Enterprises	Lowell Lindsay, Sunbelt Publications
Monte and Diane Murbach, Murbach Geotech	David and Jan Steller ("two-fer" - thanks!)
Carole L. Ziegler	Sherry Bloom , Coldwell Banker Real Estate
David Bloom	Dr. Monte Marshall
George Copenhaver, PG, CEG	Sue Tanges, Southland Geotechnical Consultants
Susan Booth	Dr. Sarah Gray - University of San Diego
Amec Earth & Environmental	Geocon , Inc.
Jim Ashby & Eric Hendrix - Mission Geoscience, Inc.	Dr. Margaret Eggers Eggers Environmental, Inc.
Dr. Richard Berry	Ninyo & Moore
William J. Elliott, Engineering Geologist	Mike Palmer
Hargis and Associates, Inc.	Dr. Anne Sturz
Greg Cranham	Southwest Geophysics, Inc.

ANNOUNCEMENTS



2010 Joint GSA Cordilleran Section and AAPG Pacific Section Meeting: Anaheim, **May 27-29**

You are invited to the 2010 annual meetings of the Cordilleran Section of GSA and the Pacific Section of the AAPG at the Marriott Hotel in Anaheim <http://geosociety.org/sectdiv/cord/2010mtg/>. The theme for the meeting is "From Mountains to Main Street," and the local host is the Department of Geological Sciences at California State University-Fullerton. The meeting will take place at the Anaheim Marriott, which

is located conveniently in the Anaheim Resort District, just steps away from Disneyland, California Adventure, and Downtown Disney. A few steps in the other direction will take you to the Anaheim Garden Walk, an oasis of outdoor shopping, dining, and entertainment.

Visit the SDAG's contribution in the exhibit hall, catch up with fellow SDAG members, and stock up on publications and SDAG wear. SDAG will be co-hosting the booth with the South Coast Geological Society. If you'd like to volunteer to help staff the SDAG/SCGS exhibit, please contact Lowell Lindsay at llindsay@sunbeltpub.com. Or, just stop by the exhibit during the meeting and see what times need to be covered.

First Call for Presentations & Exhibitors (open until July 9, 2010): **The 2011 North American Environmental Field Conference and Exposition**, JANUARY 11 - 13, 2011, at the Hilton Resort Hotel on Mission Bay in San Diego, California. For details, go to <http://www.envirofieldconference.com/exhibit.htm>



Call for Papers: Peninsular Ranges Batholith Deadline for Manuscript Submission: **June 2010**.

A GSA volume on the Peninsular Ranges batholith, Baja and southern California, is currently in the early stages of preparation. The volume will address both the Jurassic and Cretaceous batholiths and related extrusives. Plans are for a series of overview papers; a number of trans-batholith transects; topical papers dealing with isotopic, chemical, structural, and geophysical aspects of the batholith; as well as structural effects recorded in prebatholithic rocks during the evolution of the batholith. Also to be included are studies of individual plutons, ranging from gabbro to pegmatites, that characterize various elements of the batholith. A section is planned for geologic problems, such as Tertiary fault history, that have been solved through the analysis of batholithic data.

If you would like to submit a paper, or if you know of someone who might be interested, please contact one of the editors: Doug Morton, douglasmorton@gmail.com; Scott Johnson, johnsons@maine.edu; Dave Kimbrough, dkimbrough@geology.sdsu.edu; Scott Paterson, paterson@usc.edu; Keegan Schmidt, klschmidt@lcsc.edu; Vicki Todd, vtodd2@comcast.net; or Paul Wetmore, pwetmore@cas.usf.edu.

SDGS/SDAG

As many of you are aware, the San Diego Geological Society (SDGS) was formed early last year as an official non-profit 501(c)3 corporation, and SDAG is now an organization under this corporation. The reasons for doing this were many and they are spelled out in an informational sheet, the Business Plan of SDGS. The officers of SDGS should be very familiar to you, as they are all past presidents of SDAG. For those of you that would like to read more about SDGS and what it means to SDAG, check out the informational page on the website. Also check out the website www.sandiegogeologicalsociety.org.

May 1 One-Stop-Wonder: Easter Earthquake Epicenter, Baja, Mexico

Dr Tom Rockwell (SDSU) provided a "once in a lifetime" hike/tour along the surface fault rupture from the M_w 7.2 Sierra El Mayor-Cucapah Earthquake that occurred in Northern Baja California, Mexico on April

4, 2010. Ten 4x4's filled with 41 SDAG members carpoled thru Tecate, Mexico and eastward on the scenic toll road to the surface fault rupture approximately 15 west of Mexicali. The epicenter was positioned approximately 30 miles south southeast of Mexicali in the farming communities on the western side of a broad flat extensional sedimentary basin. The surface fault rupture was mapped in the uninhabited area west of the epicenter in the rugged Sierras Cucapah and El Mayor mountain ranges. The surface rupture extended northwest from the epicenter area through the mountain range towards the US-Mexico border. The earthquake was consistent with a strike slip segment of the plate boundary between the North American and Pacific plates that coincides with the southeastern part of the Laguna Salada fault system. The event had an east down motion along faults on the eastern edge of the Sierra El Mayor, and a combination of right lateral and east down motion farther to the northwest in the Sierra Cucapah mountain areas. This earthquake was the largest event to strike this area since 1892.
 -Diane Murbach



Glamorous fault scarps and models.



Left: Two of the three to four distinct offsets identified. "We saw slip up to about 10 feet (3m), with right lateral oblique slip making up about 70 percent and 30 percent as dip slip." —Chuck Houser
 Right: Laguna Salada fault, BC 023, rupture in road parallel to Highway 2; Diane, Anne, and Frances.



Faulted tree. –All photos courtesy of Diana Lindsay.



FOR LEASE
1250 FAYETTE STREET
EL CAJON, CA 92020

- Four units available, each with 3,125 square feet of warehouse and office space.
- Contact Terry Cochran at 619-258-4916, ext. 110 or to tcochran@sunbeltpub.com for more information.

FOR LEASE
2160 AVENIDA DE LA PLAYA
LA JOLLA, CA 92037

- Office available, just under 500 sq. ft. One and a half blocks from La Jolla Shores beach, and just down the road from Scripps Institute. Fully wired for phone and internet. **\$750/month.**
- Contact Izzy at 858-531-3025 or izzysurfdiva@gmail.com for more information.

SEEKING JOB OPPORTUNITIES!

Todd Wirths, M.S., P.G. #7588: Environmental geologist seeking a senior project manager-level position. I have over twelve years experience conducting environmental subsurface investigations. Responsibilities included project and data management at leaking underground storage tank sites, conducting Phase II Environmental Site Assessments, large-scale remedial soil over-excavations, and risk assessments throughout San Diego County. Experience with over 50 projects associated with assessment and remediation of petroleum hydrocarbon-impacted retail fuel facilities in the San Diego Region and supervised the installation of nearly 500 wells and borings. Read more on my LinkedIn Profile: <http://www.linkedin.com/pub/todd-wirths/10/3b/939>. Better yet, ask for my resume- call 858-337-0098, or email todd@wirths.com.

Jared Warner: I am a graduate of San Diego State where I received both my B.S. and M.S. in geological sciences ('06 and '09). I have experience in multiple fields including production geology, fractured reservoirs, reservoir characterization, basic geologic model building, geophysics, paleontology, sedimentology, oceanography, and teaching. I've recently moved back down to San Diego after working for Occidental Petroleum and looking for immediate employment opportunities. For information on my research, contact information, or a resume please feel free to contact me at jared.j.warner@gmail.com or call me at (661) 972-5332.

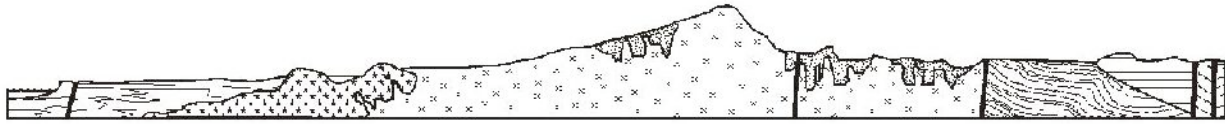
Greg Fisch: I have been an Electronic Engineer and Software developer for many years. I originally started out wanting to be a Geologist, but family and friends convinced me to get into electronics and computers instead. So now after 20+ years, it's time to make a career change, get back to my original goal and go back to school to obtain my degrees in Geology. I have been involved with a wide variety of projects including six-legged walking robots, remote telescope/ccd imager/observatory control systems, GPS tracking systems utilizing the Iridium satellite network, GIS mapping and programming, asteroid/comet orbital determination and advanced image processing. I would like to be able to apply my knowledge and skill set in the technology areas to research tasks in the Geoscience area (with a special interest in remote sensing) while I'm continuing my education. Please contact me at (858) 692-2909 (cell) or send email to: gfisch9862@aol.com and I will be happy to send you my current resume.

JOB OPENINGS!

Geologist: K2 Engineering is a small firm providing geotechnical consulting services for military and public works projects. We are currently seeking qualified engineers/geologists for upcoming projects in San Diego and Riverside Counties. We are looking for individuals who are self motivating and can work independently. As a minimum, the candidates should meet the following:

- Bachelor's degree in Geology or Civil Engineering (with emphasis in soils mechanics)
- Graduate degree and/or professional registration are desired but not required
- Five to 10 years of experience in the geotechnical field. Experience should include field explorations (sampling and logging), knowledge of the local geologic and soils conditions.
- Software experience: proficiency in Word, Excel, Power Point, Microsoft Project.
- Strong verbal and written communication skills.

Responsibilities may include coordination of geotechnical investigations, sampling, logging and report preparation. For consideration candidates should submit a cover letter and current resume to skemmerer@gmail.com or fax at (858) 484-8682.



SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegoeologists.org

2010 MEMBERSHIP FORM

NAME: _____

Please type or print clearly.

Home Address: _____

Work Address: _____

Please include company or other affiliation

E-mail Address: _____

Website: _____

Field(s) of Interest: _____

Phone: Home: () _____ Work: () _____ Cell: () _____

NOTE: *Your membership dues include email delivery of the monthly newsletter.*

Dues: ___ Student Member (email delivery only) \$ 5.00

(check choice)

 ___ Regular Member (email delivery only) \$ 25.00

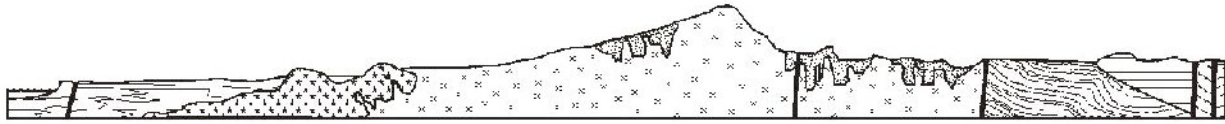
New Member Continuing Member

Date: _____

Check for change of E-mail address:

Please enclose a check payable to SDAG, and mail to:

San Diego Association of Geologists
PMB 157
5694 Mission Center Road, Suite 602
San Diego, CA 92108



SAN DIEGO ASSOCIATION OF GEOLOGISTS 2010 SPONSORSHIP FORM

NAME: _____
(as you would like it to appear in guidebook and website)

Please type or print clearly, and check preferred mailing address below.

Residential Address: _____

Office/School Address: _____

Website: _____

Phone: Home: () _____ Office: () _____

Fax: () _____ **e-mail:** _____

Donation Level and Consideration: _____ **Sponsor \$ 100.00**
(In addition to monthly recognition for your contribution, you are entitled to a free Internet "link" from SDAG Website. We also list all Sponsors in any publications printed this year)

_____ **Corporate Sponsor \$ 500.00**
(In addition to the above, you are entitled to an image of your business card in the monthly newsletter and SDAG Website)

_____ **Patron \$1,000.00**
(In addition to the above, you will receive a commemorative plaque in recognition for your most generous support of the organization)

New Member / Donor Continuing Member

Date: _____ Check for change of mailing address:

Please make check payable to San Diego Geological Society, Inc., a 501(c)3 public benefit nonprofit educational corporation (in order to claim a tax deduction), and mail to:

San Diego Geological Society, Inc.
3130 North Evergreen St.
San Diego, California 92110

*Donations may also be made
at monthly meetings.
Thank you!*