

SAN DIEGO ASSOCIATION OF GEOLOGISTS

<http://www.sandiegogeologists.org>

SDAG MEETING ANNOUNCEMENT

Wednesday, March 21, 2018 *3rd Wednesday*

Sturzstroms: Catastrophic, High-Velocity, Huge-Volume Debris Flows

Presented by: *Pat Abbott, Ph.D.*

Where: Phil's BBQ – Point Loma (Event Center)
3750 Sports Arena Boulevard, San Diego, CA 92110 (See Map)

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

Dinner: Pulled Pork and Tri-tip Sandwiches. Cash bar.

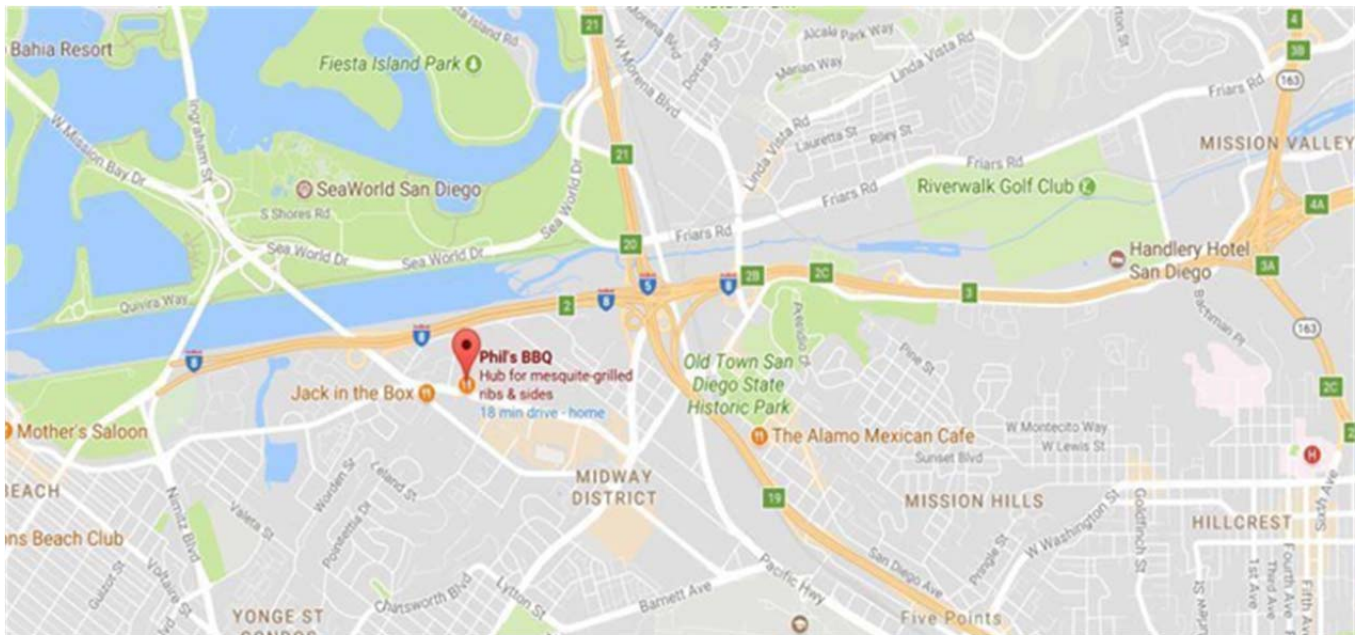
Cost: \$35 Member, \$40 Non-Member, \$20 Students.
Add \$5 if you did not make a reservation.

Reservations: Make your reservation **online** at www.sandiegogeologists.org/meetings no later than noon, Monday, March 19th. Reservations cannot be guaranteed after Monday at noon, but are always preferred over walk-ins. **EARLY reservations well before the deadline are MUCH appreciated.**

Directions: FROM INTERSTATE 5: Take Camino Del Rio South (Exit 20) south towards Rosecrans Street. Make a right onto Sports Arena Boulevard and head west for approximately 0.7 miles. The restaurant is on the right hand side (see Map).

FROM INTERSTATE 8: Head west past Interstate 5. Take West Mission Bay/Sports Arena Boulevard (Exit 1). Make a left under the freeway and another left at Sports Arena Boulevard. The restaurant is on the left in approximately 0.2 miles (see Map).

Map:



ABSTRACT

Sturzstroms: catastrophic, high-velocity, huge-volume debris flows

Sturzstroms form as massive rock falls that convert into highly fluidized debris flows that travel far and kill in great numbers. Rock falls with volumes in excess of 1 million cubic meters may shatter and flow distances 25 times farther than their vertical fall. They have been observed moving 175 mph, even running up and over sizable hills and ridges lying in their paths as at Nevados Huascarán, Peru in 1970 where 18,000 people were killed. These long-runout flows imply that the kinetic energy of a fall is preserved via low coefficients of internal friction within the flowing mass. The best explanation of how they work is via acoustic fluidization.

This phenomenon was first described following an 11 September 1881 event in Switzerland where 10 million cubic meters of rock dropped 2,000 feet and then flowed 1.4 miles as a dry mass moving 110 mph, destroying 2/3 of the village of Elm and its inhabitants. The German geologist Albert Heim called the flow a sturzstrom (in German, *sturz* means “fall” and *strom* means “stream”). Heim described many counterintuitive features within the sturzstrom deposit. For example, the shattered rock although broken into innumerable pieces still preserved its bedrock geometry and stratigraphic order although broken into a jigsaw-puzzle fabric.

A classic example near San Diego is the Blackhawk “landslide” that flowed from the San Bernardino Mountains onto the Mojave Desert floor 17,000 years ago. Many of us had the good fortune to go on a Blackhawk field trip led by Martin Stout where we walked down the head scarp and along the flow path; this trip dispelled many interpretive myths that still appear in

the geologic literature today.

In the latest Miocene and earliest Pliocene stratigraphic section in Split Mountain Gorge in Anza-Borrego Desert there are excellent exposures of two huge sturzstrom deposits, one flowed subaerially and the other subaqueously. Many diagnostic features of each will be shown in the talk.

SPEAKER BIO

Pat Abbott has Ph.D. degree in geology from The University of Texas at Austin. He was a long-time Professor of Geology at SDSU. Currently he is an author for McGraw- Hill (Natural Disasters, 10 editions) and Sunbelt Publications (The Rise and Fall of San Diego) and he leads journeys to all continents and across all oceans for The Smithsonian. Dr. Abbott recently published his third book called "Geology of Mission Trails Park" and it is available at the Park's Visitor Center.

UPCOMING MEETINGS

Meetings are usually held on the 3rd Wednesday of the month may change to accommodate the speaker and meeting place schedules. Check the SDAG website for updates

April 18, 2018	Student Presentations
May 16, 2018	Monte Marshall
June 20, 2018	TBD

2018 SDAG EXECUTIVE COMMITTEE

PRESIDENT: Chris Livesey; liveseychris@yahoo.com

VICE PRESIDENT: Ken Haase; haase@geoconinc.com

SECRETARY: Adam Avakian; secretary@sandiegogeologists.org

TREASURER: Heather Reynolds; heather.reynolds@tetrattech.com

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

SDAG PRESIDENT'S CORNER

March 2018,

We had a great turnout for our February meeting. I was really amazed at the student participation. Of additional note, I was glad to see a high student attendance at the One Stop Wonder at the in-active fault in Oceanside. For those who could not attend (as only a last minute notice could be announced, due to active rough grading), there was a lot of discussion regarding the fault, manganese precipitation by microbial processes, and good conversations. Let us continue great conversations at our next meeting or event! This month we shall enjoy BBQ from one of San Diego's famous pits Phil's BBQ and hear from Pat Abbott as he discusses sturzstoms!

Don't forget to visit our announcement section for upcoming events!

Sincerely,

Chris Livesey

ANNOUNCEMENTS

Absolution by the Sea - Now Open For Business!!

Long time SDAG member and past president, Cari Gomes, has assisted in opening a new brewery-restaurant called Absolution by the Sea, from Absolution Brewing Company. The restaurant is located at 7536 Fay Avenue, La Jolla, CA 92037. Phone 619-202-4152. Come enjoy great craft beer and food with your fellow geologists!

Desert Symposium and Field Trip, April 20 – 23, 2018



The poster is a yellow rectangular graphic with a light green border. At the top left is a small illustration of a desert landscape with a cactus and a rock formation. At the top right is a silhouette of a bird in flight. The text is centered and reads: "SAVE THE DATES" in pink, "32nd Annual" in black script, "Desert Symposium and Field Trip" in large black font, "Symposium: April 20-21, 2018 Zzyzx, CA" and "Field Trip: April 22-23, 2018" in black. Below this is a box with the theme: "Theme Against the current: The Mojave River from sink to source" in green. Further down, it says "Share your desert research with an oral or poster presentation. We encourage students to attend and compete for the Adams Best Student Presentation Award." Below that is a table of deadlines: "Abstract deadline (for all presentations): 20 Jan 2018", "Final Paper submission deadline: 20 Feb 2018", and "Registration deadline: 6 Apr 2018". At the bottom, it says "The field trip will camp at Owl Canyon Sunday night (Apr 22). A third-day informal trip will be held in the Barstow area." There are two small illustrations at the bottom: a cactus on the left and a tree on the right. The text "For more information please visit DesertSymposium.org" is in the center, and "The 2018 Desert Symposium is being held in cooperation with the Desert Studies Center, California State University, Fullerton." is at the very bottom.

SAVE THE DATES

32nd Annual

Desert Symposium and Field Trip

Symposium: April 20-21, 2018 Zzyzx, CA
Field Trip: April 22-23, 2018

Theme
**Against the current:
The Mojave River from sink to source**

Share your desert research with an oral or poster presentation.
We encourage students to attend and compete for the
Adams Best Student Presentation Award.

Abstract deadline (for all presentations):	20 Jan 2018
Final Paper submission deadline:	20 Feb 2018
Registration deadline:	6 Apr 2018

The field trip will camp at Owl Canyon Sunday night (Apr 22). A third-day informal trip will be held in the Barstow area.

For more information please visit
DesertSymposium.org

The 2018 Desert Symposium is being held in cooperation with the Desert Studies Center, California State University, Fullerton.

2018 SDAG Field Trip Preliminary Information

2018 SDAG Field Trip October 12th to 14th 2018

Hello SDAG! Our field trip weekend has been finalized and we are well on our way to putting together, what I hope to be, a great trip. We will have road stops on the way to the Barstow area and then a day of hikes in the Rainbow/Basin and Owl Canyon Area. Our Sunday stop consists of the geology around Calico Ghost Town and the history of the ghost town.

I am always looking for volunteers to assist in geologic areas of interest or general interest in helping on the trip. I will start taking signups in June or July. If you have questions or ideas, send them to Ken Haase at haase@geoconinc.com

***AEG/SDGI Joint Meeting – Oroville Spillways - Geology and Why it Matters –
Holy Nichols, PG, CEG, California Department of Water Resources***

San Diego Geo-Institute and Association of Environmental & Engineering Geologists are hosting a joint-meeting on March 13th, 2018, Tuesday, from 6:00 pm to 8:00 pm. The technical presentation topic is Oroville Spillways - Geology and Why it Matters, delivered by Holly J. Nichols, PG, CEG, of California Department of Water Resources. The meeting will be held at Kings INN (1333 Hotel Cir S, San Diego CA 92108). We look forward to seeing you there!

Registration Link :

<http://campaign.r20.constantcontact.com/render?m=1115455899501&ca=823dd2cb-d2df-4de4-9a69-d9d41d8ede89>

For registration questions, contact:

Mahdi Khalizad (mkhalizad@geosyntec.com<mailto:mkhalizad@geosyntec.com>) or

Congpu Yao (congpu@groupdelta.com<mailto:congpu@groupdelta.com>)

California Professional Licensure Workshop – Wednesday March 14 @ SDSU

San Diego Association of Geologists welcomes you to join us for a Workshop on the GIT/PG/CEG/CHG/PGP License Application with Laurie Racca PG, from the California State Board. Laurie will also have a discussion related to her talk from last year's March SDAG meeting on Understanding the Licensure Laws and the Responsibilities of the Licensee. The talk will be held on Wednesday March 14th at San Diego State University. The meeting will take place from 6pm to 830pm. The exact location on campus is still TBD but we will inform those who are interested in going once we figure it out. Laurie will be traveling all the way from Sacramento, so don't miss this opportunity to learn about the application process and the implications and responsibilities of professional licensure. Please confirm your attendance by replying to secretary@sandiegogeologists.org . Those of you who reply will go on a list of people to keep updated with the meeting location once it's decided. This flier will also be posted on the SDAG website. More detailed explanation of the workshop is below:

Workshop on the GIT/PG/CEG/CHG/PGP License Application: The next application deadline for the Professional Geologist and Professional Geophysicist practice authority licenses, the Certified Hydrogeologist and Certified Engineering Geologist title authority licenses, and the Geologist in Training certificate is May 7, 2018 for those wishing to take the exams in the fall of 2018. This workshop is an opportunity to learn about the application process, and find out what it takes to ensure that the Board's review of your application goes smoothly. The workshop will cover:- About the Board- Understanding the Terminology- Completing the Application for the GIT, PG, CEG, CHG and PGP- Important Information for References- National ASBOG Exams and California State Exams- Code of Professional Conduct and Responsibilities of a Licensed Professional

Understanding the Licensure Laws and the Responsibilities of the Licensee: The California Board for Professional Engineers, Land Surveyors, and Geologists (BPELSG) is charged with safeguarding the life, health, property, and public welfare by regulating the practices of professional engineering, land surveying, geology, and geophysics. Knowledge of the laws and regulations that govern licensed professionals in California is essential to ensuring that critical work is done by qualified professionals.

BSPELG is inviting you to have an informal "round table discussion" focused on the recent changes to the licensing laws and regulations (2017 update), a review of key concepts regarding professional licensure, and the importance of mentoring young professionals. Some of the topics that we will cover include: promoting understanding of the difference between a practice licensing act (such as the PG license) and a title licensing act (such as the CEG or CHG specialty licenses), keeping our licensing tests current with the state of practice by the different licensees, and keeping our procedures and statutory obligations current too. It is our belief that we need more frequent feedback from stakeholders about these issues as well as greater participation by our licensees for activities pursued by the Board that impact our respective futures.

Laurie Racca, PG, is the Senior Registrar for Geology and Geophysics at BSPELG. Her 25+ years of experience includes working in private environmental and geotechnical consulting, providing regulatory agency oversight of large military and civilian environmental cleanups for the Department of Toxic Substances Control, and investigating fraud, waste and abuse as part of the Office of Enforcement at the State Water Resources Control Board.

Geological Society of America Annual Meeting

www.geosociety.org

2018

Field Trip Proposal Deadline: December 1, 2017

Technical Session/Short Course Proposal Deadline: February 1, 2018

Abstract Deadline: August 14, 2018

Meeting: November 4th to 7th 2018, Indianapolis, Indiana

52nd AESE Annual Meeting – Niagara Falls, New York

September 26th to 29th 2018

Mark your calendars! The 52nd annual meeting of the Association of Earth Science Editors will take place in Niagara Falls, New York, September 26 to 29, 2018.

AESE's meetings generally consist of 2 days of technical sessions and a 1-day field trip. Please join us for a fun-filled and educational experience September 2018. Meeting headquarters will be the Conference and Event Center Niagara Falls. The meeting hotel will be the Sheraton at the Falls, on Third Street, where a block of rooms has been set aside for attendees, at a nightly rate of US\$139 (\$129 for room + \$10 facility fee).

Niagara Falls has been a prime tourist destination since the mid-19th century. People come from around the world to see just the falls, themselves. But there is so much more to explore on both the American and Canadian sides of the falls, from world class wineries, Niagara Falls State Park (providing close access to the American and Bridal Veil falls), Niagara Gorge hiking trails, and art galleries to the Schoellkopf Power Plant museum (providing easy access to the bottom of the gorge), Niagara rapids jet boat tours, Old Fort Niagara, Niagara-on-the-Lake and more....so remember to bring your passports if you wish to take in all that the area has to offer!

The meeting is open to anyone interested in earth science editing, publishing and outreach. The program is in the initial planning stage. Watch for meeting updates on AESE's web page www.aese.org. A closed Facebook group has been set up to share information <https://www.facebook.com/groups/123266368358780/>. For more information, please contact host chair, Marg Rutka, marg.rutka@ontario.ca, and technical program chair, Phil Farquharson philfarq@gmail.com.

Yonder Dynamics – UC San Diego Student Robotics Organization



Allison Kubo is the Science lead for Yonder Dynamics a university rover team at UC San Diego and an Earth Science student at Scripps. She reached out to SDAG looking for sponsors for their rover this year. Part of the competition is an analysis of the geologic settings of the area and soil retrieved by the rover which incorporates soil moisture, conductivity, and chemical testing.

She would be happy to partner with SDAG or anyone interested in the project.

Here are links to the team's website and sponsorship package:

[Yonder Dynamics](#)

[Yonder Dynamics Sponsorship Package](#)

SDAG Research Tool

SDAG RESEARCH TOOL - A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is now available on our website. Entries are sorted by primary author, or chronologically by date of publication, from our first guidebook in 1972, up the San Luis Rey River in 2013, from Coast to Cactus in 2014, and finally over the edge to the Coyote Mountains in 2015. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "tsunami" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Peterson and Hargis + Associates, Inc., for making this possible. See the links below:

http://www.sandiegogeologists.org/SDAG_Pubs_authors.pdf

http://www.sandiegogeologists.org/SDAG_Pubs_chronological.pdf

Interactive Fault Map for San Diego

As part of the update for the San Diego-Tijuana Earthquake Planning Scenario, Working Group No. 1's "Fault Map Subcommittee" has completed the first publicly available bi-national active and potentially active fault map. This interactive GIS map includes the first publicly available active and potentially active fault map locations from the City of San Diego. The City of San Diego fault locations and activity of faults are based chiefly on interpretation of information contained in geologic reports by private consultants. The City of San Diego identifies active faults as Holocene ($\leq 11,000$ yr) and potentially active as Quaternary (up to 1.6my). City of San Diego fault investigations are ongoing that may require future revision of this map. This map is not a substitute for a site specific fault investigation. The map also includes an updated fault map layer from the State CGS. CGS suggests users defer to the City of San Diego fault data, where marked, for increased accuracy. The map also integrated the faults south of the border for a bi-national cross border view. You can expand the map legend on the left side to see the fault ages and sources for each layer that can be turned on or off for the map view. You can select from 1 of 12 base maps. You can click on the fault line on the map to see the meta-data source. This map includes the yellow dashed SURFACE FAULT RUPTURE location layer that will be used for the infrastructure, social, and economic impacts and emergency response for the update to the Earthquake Scenario. In addition, active and potentially active fault investigation locations from private companies are planned to be added to this map as a resource. This map is an on-going project and resource as our knowledge increases about local active and potentially active faults.

The link is available at: http://www.sandiegogeologists.org/Faults_map.html

I would like to thank Carolyn Glockhoff for her endless GIS work, Jim Quinn and the City for providing their data and time, Jerry Treiman with CGS for his time preparing the Surface Rupture and providing their new State fault data layer, and Luis Mendoza at CICESE for providing the faults south of the border. Please contact Diane Murbach (dianemurbach@gmail.com), Chair for the SD-TJ Earthquake Scenario Working Group #1 - Earth Science, if you have any questions, or see any errors on this new fault map.

Diane Murbach (619) 865-4333

Engineering Geologist, C.E.G.

www.murbachgeotech.com

Request for 2018 SDAG/SDGS Publication Sponsors

On behalf of the San Diego Geological Society, Inc. (SDGS), a public benefit 501(c)3 nonprofit educational corporation, we would like to request tax deductible Donations for our San Diego Association of Geologists (SDAG) group. The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: <http://www.sandiegogeologists.org/Sponsors.html>.

Your donation will further the SDGS mission to promote geology and related fields in the greater San Diego region, operating through the San Diego Association of Geologists (SDAG), a committee of SDGS. To achieve our primary educational objective, we organize frequent field trips and maintain a program of monthly meetings featuring speakers on current geological topics. We also publish field trip guidebooks and other publications related to geology and natural history. We encourage scholarship and research by awarding scholarships from the elementary through graduate levels. With your \$100 "EMERALD" donation, your name/business will be listed as a sponsor on the SDAG web site (<http://www.sandiegogeologists.org/>) and in the monthly SDAG meeting newsletters. With your \$500 "RUBY" or \$1,000 or more "DIAMOND" level donation, your business card will also be included on the SDAG web site and in the monthly SDAG meeting newsletters. In addition, as a "\$1,000 or more DIAMOND" level donation you will be presented with a thank you plaque.

Should you have any questions regarding a Sponsorship, please contact our non-profit SDGS Secretary (Diane Murbach) at 619-865-4333.

Call for Articles

SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.

Geo Job Listings

Trevet is an Environmental and Engineering Consulting Firm headquartered in San Diego, CA. We are seeking a **full-time staff level Geologist or Environmental Scientist**. Two to five years of experience preferred. At a minimum a bachelor's degree in geology, engineering, or a related scientific discipline is required. Must be eligible to work in the United States, and on Department of Defense installations. Ability to travel for extended duration (2 to 3 weeks) is required. The ideal candidate will possess great attention to detail, excellent written and verbal communication skills, and ability to work independently and within a team.

Duties will include a combination of field and office related tasks.

Field experience should include:

- Installation of soil borings using multiple drilling methods
- Describing soil using the USCS and ASTM classification systems
- Installing and abandoning groundwater monitoring wells
- Field sampling of groundwater, soil, and soil gas
- Remediation system operation and sampling

Field work may be performed at project sites with environmental media (e.g., soil, sediment, groundwater, surface water, etc.) that has been impacted with hazardous substances and/or hazardous wastes.

Office experience should include:

- Field data collection, analysis, and interpretation
- Preparation of data in visual, graphical, and tabular formats
- Technical report writing

Other Requirements

Familiarity with CERCLA/RCRA requirements

OSHA 40-Hour HAZWOPER Training with current 8-hour refresher class preferred.

Trevet is an Equal Opportunity Employer

Please apply at

<http://www.trevetinc.com/>



Entry-Staff Hydrogeologist

OVERVIEW:

Hargis + Associates, Inc. (H+A) is an environmental consulting and engineering firm founded in 1979 with a commitment to providing high-quality, cost-effective services for our clients. We are headquartered in San Diego and have offices in Sacramento, CA, and Phoenix and Tucson, AZ. Our practice focuses on large facility investigation and remediation projects for Fortune 500 clients where we provide responsive, practical and innovative solutions for the treatment of soil, vapor and groundwater contamination. H+A also provides hydrogeologic and engineering services for groundwater resources assessment, stormwater management, and environmental regulatory and litigation support. H+A employs a staff of approximately 60 hydrogeologists, geologists, engineers, industrial hygienist, and project support personnel.

We are currently seeking an entry-staff level hydrogeologist to join our San Diego office supporting environmental investigation and remediation projects located throughout Southern California. These projects are primarily focused on the characterization and remediation of soil, vapors, and groundwater impacts at large industrial sites. In addition to implementing fieldwork for site investigations, the position will also involve data entry, interpretation, and technical report writing for various soil and groundwater monitoring programs.

RESPONSIBILITIES:

- Implement/and support field investigations for soil sampling, groundwater sampling, borehole drilling, and well installations.
- Complete tasks requiring utilization of critical-thinking skills, scientific, geologic, and engineering analytical techniques.
- Assist in the preparation of reports, work plans, sampling and analysis plans, remedial investigation reports, and groundwater monitoring reports under the direction and guidance of a Senior Geologist/Engineer/Scientist.
- Follow corporate health and safety and quality management plan standards.

REQUIREMENTS:

- BS degree in geology, hydrogeology or related technical discipline is required.
- 1-3 years of field experience in environmental consulting is preferred.
- Experience with geologic, engineering, scientific, or general environmental projects and data interpretation.
- Field experience with drilling, sampling (soil and groundwater), and well installations is a plus.
- OSHA 40-hr. HAZWOPER, current refresher preferred; training provided.
- General computer knowledge (Microsoft Office, Email); GIS and other environmental software experience is a plus.
- Excellent organizational and sound written/oral communication skills.
- Local candidates only; must be eligible to work in the United States.

PHYSICAL DEMANDS:

- Ability to drive, travel and/or perform field work approximately 50% of the time; some overnight and extended travel.
- Ability to lift 45 pounds.
- Must be able to perform the following actions while conducting fieldwork: stooping/kneeling/crouching, standing for long periods of time, pulling/pushing and lifting equipment and supplies, walking on uneven terrain.
- Ability to work in outdoor environments and hot/arid conditions.
- Ability and willingness to work long hours and in proximity to loud noises and hazards (i.e., proximity to moving mechanical parts, moving vehicles, and exposure to chemicals, fumes, odors, dusts, and gases).

Those who seek to apply may submit a cover letter and resume via email to hargisinfo@hargis.com

All qualified applicants will receive consideration for employment without regard to race, color, national origin, ancestry, sex, gender, gender identity, gender expression, age, sexual orientation, religious creed, physical or mental disability, medical condition, genetic information, marital status, veteran status, or any other classification protected by applicable federal, state, or local law.

PHOTO OF THE MONTH

If you would like to submit a photo, email them to secretary@sandiegogeologists.org and I will try and put them in the newsletter. Provide a short description of the picture.



When Life (your property) gives you lemons (cobbles) make lemonade (a house).

A great use of Stadium Conglomerate for this historic 1926 house in the 3900 blk of Adams Ave. San Diego.

Photo and caption provided by Mike Hart, CEG



HARGIS+ASSOCIATES, INC
HYDROGEOLOGY • ENGINEERING

Hargis + Associates, Inc. is an environmental consulting firm specializing in hydrogeology and engineering. We are headquartered in San Diego, California and have offices in Mesa and Tucson, Arizona. Our practice areas include all aspects of hydrogeology and engineering.

As a client service organization, we pride ourselves in being attentive and efficient in meeting our client's needs and solving their problems. In addition to our technical expertise, communication and responsive coordination are hallmarks of our reputation.

We invite you to explore our website to learn more about our firm and the services we provide. We welcome the opportunity to discuss our consulting expertise directly with you.

Contact: **Dr. David R. Harais**



Mobile Geochemistry Inc.

H&P Mobile Geochemistry 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 16 years.

2470 Impala Dr., Carlsbad, CA 92010
(800) 834-9888

Contact: **Louise Adams or Suzie Nawikas**



Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. We are a diverse company, including individuals with expertise in science, research, engineering, construction, and information technology. Our strength is in collectively providing integrated services—delivering the best solutions to meet our clients' needs.

<http://www.tetrattech.com>



Contact: **Rupert Adams, CEG**

Geocon Incorporated
6960 Flanders Drive, San Diego, CA 92121
P | 858.558.6900

*San Diego / Riverside County / Palm Desert / Los Angeles /
Orange County / Bakersfield / Bay Area / Fairfield / Sacramento*



**EXCAVATING,
DEMOLITION, BREAKERS**

Atlas Excavating & Breakers has been providing operated equipment rentals and excavating services to contractors & geologists in San Diego and Riverside counties since 1991. We offer Mini Ex., 4x4 Backhoe & large excavators up to 75,000 pounds. "40 hour Haz Whopper" trained operator. Asphalt/concrete removal & replacement.

Contact: **Barry Anderson**

760-754-1337



**ENERGETIC
RESPONSIVE**

8(a) / SDB Certified

EXPERIENCED

858-275-6454

Trevet is a San Diego-based environmental engineering and consulting 8(a)-certified small business enterprise.

- [Dr. Pat Abbott](#) — SDSU Professor of Geology, Emeritus
- Marty and Sherry Bloom
- Joe Coronas
- Greg Cranham — Consulting Geologist
- Damon DeYoung — Battelle
- Dr. Margaret R. Eggers, CHG — [Eggers Environmental, Inc.](#)
- Karen Evans for Jim Evans (Deceased)
- Phil Farquharson — [Geology Guy](#)
- Carolyn Glockhoff — [Caro-Lion Enterprises](#)
- Cari Gomes
- Dr. Sarah Gray
- Blayne Hartman — [Hartman Environmental Geoscience](#)
- Rob Hawk
- Tom Lamb
- [Leighton Group](#)
- Lowell A. Lindsay & Diana Lindsay — [Sunbelt Publications/AESE](#)
- Dr. Monte Marshall—SDSU Prof. of Geology & Geophysics, Emeritus
- [John Minch](#)
- [James R. Ashby/Mission Geoscience, Inc.](#)
- Jennifer Morton — [Terramar Environmental](#)
- Monte and Diane Murbach — [Murbach Geotech](#)
- [Pacific Drilling Co.](#)
- Peet's Coffee and Tea Solana Beach
- Les Reed—Geotechnical Exploration Inc.
- Rothman Creative (Fritz Rothman 619-278-1771)
- Gerald Shiller
- [Scott Snyder](#)
- [Southwest Geophysics, Inc.](#)
- David and Jan Steller
- Dr. Anne Sturz
- Mary Walke
- Carole L. Ziegler

- Cari Gomes – [Pinao Consulting](#) – [Absolution Brewing Company](#)
- Vic Camp

Add yourself to this list - Sponsors, Corporate Sponsors, and Patrons provide a significant portion of SDGS's and SDAG's operating and scholarship budgets. SDGS is a 501(c)3 public benefit nonprofit educational corporation. For more information, please see our Sponsorship Form.