



## SAN DIEGO ASSOCIATION OF GEOLOGISTS

[www.sandiegoeologists.org](http://www.sandiegoeologists.org)

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### SDAG MEETING ANNOUNCEMENT

Wednesday August 21, 2002

### Mino El Fenomeno

presented by **PATRICK BROOKS AND DOUG PEELER**

**AND**

### **PRESENTATION OF THE 2002 TOM DIBBLEE MEDAL TO DR. GORDON GASTIL**

Following our presentation on Mino El Fenomeno, The Dibblee Foundation will present the 2002 Thomas Dibblee Medal to Dr. Gordon Gastil. The presentation will include a little roasting, a little reminiscing about Dr. Gastil's 40-some years of geology, and a chance to express appreciation of his career in teaching and geologic mapping. To learn more about the Dibblee Foundation, visit. [www.dibblee.geol.ucsb.edu](http://www.dibblee.geol.ucsb.edu)



Where: CHULA VISTA NATURE CENTER

**When:** 6:00 pm – Social Hour  
7:00 pm – Dinner  
7:30 pm – Program (NOTE EARLIER TIME)

**Directions:** The Chula Vista Nature Center is located on San Diego Bay approximately seven miles south of downtown San Diego and seven miles north of the international border. From Interstate 5, take the E Street exit in Chula Vista, go west to the parking lot. A shuttle will take you from the parking lot to the Nature Center

**Dinner:** Joe's Chuckwagon BBQ will provide us with dinner consisting of tri-tip & chicken breast, chuckwagon corn, cole slaw, ranch beans, potato salad, garlic bread, and other goodies.

**Cost:** \$20.00/person, \$10/student

**Reservations:** Make your reservation online through the SDAG website at [www.sandiegoeologists.org](http://www.sandiegoeologists.org) or call the SDAG Reservation Line at: (619) 521-0165, ext. 190, **no later than NOON! Tuesday, August 20<sup>th</sup>**. Contact Margaret Eggers at (619) 521-0165, ext. 132 with any questions.

To learn more about The Chula Vista Nature Center, visit [www.chulavistanaturecenter.org](http://www.chulavistanaturecenter.org)

### **Mina El Fenómeno**

Mines that typify the Baja California Norte Metallogenic Province are El Arco (copper), El Fenómeno and La Oliva (tungsten), and multiple gold and some iron prospects (Salas 1976, 1980). Tungsten is a strategically important metal used to harden steel alloys and is known to occur in pegmatites and quartz veins in granite, as well as contact metamorphic deposits in limestone. Scheelite (CaWO<sub>4</sub>) is the primary tungsten ore mineral occurring in the northern Sierra Juarez, Baja California, Mexico; with the largest known occurrence at El Fenómeno. Several area tungsten mines, including Los Aliados de America (Allies of America) and Pearl Harbor, produced commercial quantities of tungsten during World Wars I and II.

The El Fenómeno deposit extends along an intrusive contact between quartz diorite and metamorphosed sediments, including a 45-meter- thick bed of white to light blue marble. The main ore body occurs in a zone of tactite, a dark garnet and pyroxene skarn; within the marble; and between the marble and quartz diorite contact. Pegmatite dikes containing tourmaline and garnet also occur at El Fenómeno, cross-cutting all the metamorphic rocks near the diorite contact. Where pegmatites appear to cut tactite, some pegmatite minerals are weakly replaced by tactite minerals including scheelite, suggesting that tactite formation at least partly occurred later than pegmatite intrusion. The deposition of scheelite likely occurred at the same time, or shortly thereafter, as it often occurs as well formed crystals in the tactite.

Scheelite has a high specific gravity for a non-metallic mineral, but can be tough to distinguish in hand sample. It generally occurs as few small masses to distinct crystals scattered in the tactite or marble, so the high specific gravity is not much help. However, it fluoresces bright blue-white under short-wave ultra violet light! Associated minerals in the tactite include garnet, vesuvianite, axinite, diopside, quartz and calcite. Primary iron sulfides (pyrites) are also present in fresh rock, with secondary iron oxides and copper carbonates (azurite and malachite) occurring in the weathered zones.

**Speakers: Patrick Brooks and Doug Peeler**

**Patrick Brooks** earned a B.S. in Geology from the University of Utah, and a M.S. in Hydrology from the University of Arizona. He is vice president of SDAG; president of Aqualink Water Systems (a non-profit group dedicated to improving potable water supplies in Baja California); and a long-time consulting geologist in the San Diego area. He is currently employed by Anteon International Corporation where he manages environmental contractors performing cleanup and investigative work for the U. S. Navy.

**Doug Peeler** earned a B.S. in Geology from Northeastern University in Boston, Massachusetts and spent two years in marine geophysics and sediment mineralogy research with the U. S. Geological Survey in the process. Doug also spent two years in post-graduate study at Southern Illinois University at Carbondale before finally arriving in California and starting a now 12-year career in the environmental industry. He is currently employed by Bechtel National, Inc. as a consultant developing remediation plans and decision documents for U.S. Navy sites in Southern California and Arizona.

## **ANNOUNCEMENTS:**

**DO YOU HAVE AN ANNOUNCEMENT??** Do you have an event, job opening, field trip or other announcement you would like to share with our members?? Just call or email our SDAG Secretary, Margaret Eggers at 619-521-0165 OR [meggers@hargis.com](mailto:meggers@hargis.com).

**2002 Geology River Rat Trip a Rousing Success!!** In June, twenty four geologically-inclined souls braved the chilling waters of the Colorado River to spend 8 days in the Grand Canyon, rafting from just below the Glen Canyon Dam to Lake Meade. Led by our own Sue Tanges, the group included SDAG members and friends Ron and Annette Tanenbaum, Barbara and Walter Birnbaum, Mark Schmoll and his kids Karen and Kevin, Anne Sturz and her daughter Carolyn, Sue's mother Cathy Tanges and Hoot Gibson, Nona Crampton, Margaret Eggers, Monte Marshall, Glen Foss, Ty Liles, Carole Ziegler, Cindy Michels, and Pia Parrish. Joining us from Texas were friends of Glen Foss: Tom Pettigrew, Dave Huey and GW and Jan Graham. It was a trip of a lifetime for most of us. If you get the chance, this trip is one that should not be missed!

**SDAG NEWSLETTER IS DIGITAL!** If we don't have your e-mail address, or your email address changes, or if you have problems with the electronic format please contact Margaret Eggers at [meggers@hargis.com](mailto:meggers@hargis.com), or call at 619-521-0165, ext. 132.

**SDAG Wear:** - Monte has a variety of shirts, hats, visors and even a nice vest with the SDAG logo. A small selection is available for purchase at the meetings; all SDAG wear can be ordered from Monte.

**SDAG Scholarships:** - Please see Bob Stroh regarding potential candidates for 2002 SDAG scholarships.

**SDSU Geology Department Seminar Series** – Wednesday Afternoons - The seminar announcement page is at: [www.geology.sdsu.edu/seminars/](http://www.geology.sdsu.edu/seminars/)

## 2002 CORPORATE SPONSORS

**THANK YOU!!** to ALL our 2002 Corporate Sponsors! And a Special THANK YOU! to Geotechnics, Inc. for their \$1000 contribution to SDAG. A significant portion of the SDAG operating budget is provided by corporate sponsorship. Please consider becoming a Corporate Sponsor! In addition to monthly recognition for your contribution, you will be entitled to a free internet “link” from the SDAG Website, and all Corporate Sponsors are listed in the front of the annual SDAG Field Trip Volume.

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## **2002 EXECUTIVE COMMITTEE**

**PRESIDENT** - Bob Stroh; *Kleinfelder, Inc.*; Ph: (858) 320-2000; fax: (858) 320-2001; [rstroh@kleinfelder.com](mailto:rstroh@kleinfelder.com)  
**VICE PRESIDENT** - Patrick Brooks; *Anteon Corp.*; Ph: (619) 532-0930; fax: (619) 532-0995; [brooksgp@efdswnavfac.navy.mil](mailto:brooksgp@efdswnavfac.navy.mil)  
**TREASURER** - Monte Murbach; *Southern California Soil & Testing*; Ph: (619)-280-4321; fax: (619)-280-4717; [mmurbach@scst.com](mailto:mmurbach@scst.com)  
**SECRETARY** - Margaret Eggers; *Hargis + Associates, Inc.*; Ph: (619)-521-0165; fax: (619) 521-8580; [meggers@hargis.com](mailto:meggers@hargis.com)  
**PUBLICATIONS** - Lowell Lindsay; *Sunbelt Publications*; Ph: (619) 258-4911 x111; fax: (619) 258-4916; [llindsay@sunbeltpub.com](mailto:llindsay@sunbeltpub.com)  
**WEBMASTER** - Carolyn Glockhoff; Ph: (858) 549-3396; [carolion@znet.com](mailto:carolion@znet.com)

### **Upcoming 2002 Meetings:**

September 21-22	<b>SDAG Field Trip</b> to Baja California
October 16 <sup>th</sup>	Joint Meeting with Inland Geological Society, Temecula Hungry Hunter
November 20 <sup>th</sup>	“Geotechnical Input to Tunnel Construction Projects,” by Dr. Ronald Smith of Kleinfelder, Location Tom Hamms Lighthouse
December	Annual Holiday Meeting

## **FIELD TRIPS!**

**SDAG 2002 Field Trip – SEPTEMBER 21<sup>st</sup> and 22<sup>nd</sup>!** The 2002 SDAG Field Trip that will be a joint field trip with Universidad Autonoma de Baja California (UABC) in Ensenada. Jorge Ledesma Vasquez, Geology Chairman, will sponsor coastal geology stops, including the Agua Blanca Fault at Punta Banda. Stops in Sierra Juarez (south of Tecate) will include the abandoned scheelite mine, El Fenomeno, that features granite pegmatite, skarn, and hydrothermal minerals, and Dr. Dave Kimbrough will sponsor a stop on La Posta-type intrusions. Field Trip announcement, Registration form and release waiver is included with THIS newsletter.

**SCGS 30<sup>th</sup> Annual Fieldtrip:** Come for the Wine Stay for the Faults: Geology, Tectonic Geomorphology, and Groundwater Resources of the Santa Barbara Wine Country.

**October 12-13<sup>th</sup>.** Join the South Coast Geological Society for a great weekend in the Santa Barbara wine country! Field leaders in this field will include Dr. Merilark Padgett-Johnson, professor of Viticulture and Enology at Alan Hancock College, Dr. Daniel Roberts a soil scientist and viticulturist of Kendall-Jackson Winery Estates and Mr. Bob Johnson a vineyard director of ~1600 acres of winegrapes in Santa Barbara. Other stops on Saturday include an introduction to the Santa Ynez Fault located within the campground, discovering the mechanics behind the exhumation of highly abused rocks of the Jurassic Franciscan Formation along the road to Figueroa Mountain as well as an update on local groundwater and surface water resources.

On Sunday, visit the Mission Tunnel delivering water to the city folk, and take a stroll along the beach to behold the Loon Point Anticline. A faulted, asymmetric anticline (fault-propagation fold) which forms a several-meter high scarp in the substage 5c terrace and is well-exposed in the seacliff exposure. Mid-late Pleistocene sediments are deformed in the core of the fold and the marine platform and overlying terrace deposits are folded and offset. Following is a stop at the La Conchita Ranch. Over lunch we will discuss the fascinating landslide (and legal and groundwater) history impacting this elevated failing, marine terrace and sea cliff. Contact Marina West at (949) 458-8877 or [marinawest@cox.net](mailto:marinawest@cox.net) for further information.

### **POSITIONS AVAILABLE:**

- **TESTING ENGINEERS**-San Diego, Inc., is seeking **registered Project Engineers and Geologists, Geotechnical Soil Technicians and Geotechnical Laboratory Technicians** to join our dynamic team. Testing Engineers-San Diego, Inc., a long-established geotechnical, environmental, and construction materials testing and inspection laboratory, is a respected leader in our industry and has been providing service to San Diego for over 50 years. Please fax your resume to: (858) 715-5810, email to: [ealdrich@TESD.com](mailto:ealdrich@TESD.com) or mail to: 7895 Convoy Court, Suite 18, San Diego, California 92111.
- **ENVIRONMENTAL ASSESSOR - Geotechnics Incorporated** is seeking an environmental assessor. Must have experience in the preparation of ASTM Phase 1 Environmental Site Assessments. Should be familiar with preliminary endangerment assessments for school sites. Be familiar with Department of Health SAM manual guidelines. Excellent environment, benefits & salary. Please email resumes to [ldromine@geotechnicsinc.com](mailto:ldromine@geotechnicsinc.com) or fax to (858)536-8311.
- **Geocon Consultants, Inc.**, a San Diego-based environmental services firm, is seeking **Senior Staff Geotechnical Engineer** with 2 to 4 years experience. BSCE required, MSCE preferred. Registration desirable. Previous experience in land development a plus. **Project Geotechnical Engineer** with 3 to 5 years experience. BSCE required, MSCE preferred. Registration required. Experience in land development a plus. **Engineering Field Technician** with 2+ years experience desired but not mandatory. Land development and/or hillside experience a plus. E-mail resume to [hr@geoconinc.com](mailto:hr@geoconinc.com) or fax (858) 558-6159 or mail to Human Resources, 6960 Flanders Drive, San Diego. 92121.
- **STAFF ENGINEERS & SOIL TECHNICIANS** – Southern California Soil & Testing, Inc. (SCST) has 2 - 3 positions available for experienced staff engineers and soil technicians with several years experience towards registration and certification. SCST offers a comprehensive compensation and benefit package, and the opportunity to work on a wide range of projects. Submit resumes in confidence to SCST, 6280 Riverdale Street, San Diego, California 92160-0627, Attn: Steve Jensen, or fax to (619) 280-4717.
- [Ninyo & Moore](http://www.ninyoandmoore.com) has the following positions to be filled in San Diego:  
**Project-level Geotechnical Engineers and Geologists** (5+ years experience)  
**Staff and Senior Staff-level Geotechnical Engineers and Geologists** (2+ years experience)  
**Staff and Senior Staff-level Environmental Scientists, Geologists and Engineers** (1+ years experience); **Field Technicians** with appropriate soils and materials testing certifications;  
**Deputy Inspectors** for concrete, masonry, welding and structural steel. ICBO certification required, DSA and City of San Diego certification a plus. Please submit resumes in confidence to the Corporate Personnel Director at: Ninyo & Moore, 5710 Ruffin Road, San Diego, California, 92123, or via e-mail at [careers@ninyoandmoore.com](mailto:careers@ninyoandmoore.com). EOE. [Ninyo & Moore](http://www.ninyoandmoore.com) is a **SDAG Corporate Sponsor**.

**San Diego Association of Geologists  
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