



## A MESSAGE FROM THE DEPARTMENT CHAIR: DIRK BARON



Another year has gone by way too quickly and it is time to put together our third newsletter. We enjoyed hearing from many of you throughout the year and seeing several alumni at our spring barbeque this May. In the coming year, we want to create a detailed alumni survey that will help us improve our programs. We also want to create an alumni/community advisory board for the Department. Please let us know if you are interested to serve on this board. We have been compiling “Alumni Highlights” that will show prospective new students the many fascinating career pathways that geology degrees can open up. Please go ahead and send us a recent photo and a few paragraphs on what you have been doing after graduating from CSUB for these highlights. In the meantime, enjoy the newsletter. We are pleased to share the many exciting things going on in the Department. And please stay in touch!

## DEPARTMENT NEWS

This last year has been a remarkable time for the Department. We continue to see a substantial increase in the number of students pursuing geology degrees and record enrollment in classes. For example, **Jan Gillespie**’s Sed/Strat class this term has 30 students, **Dirk Baron**’s Environmental Geochemistry class 35!

With the influx of students, there is new positive energy in the Department and the **Geology Student Club** is organizing many field trips, social events, guest speakers, and outreach activities (see **Student News Section** for more info). Faculty continues to be very successful at securing outside funding for research, equipment, and outreach activities. This spring alone, we were awarded \$660,000 through three grants from the National Science Foundation. **Staci Loewy**, **Rob Negrini** with **Bob Horton**, and **Dirk Baron** are the leads on these grants.

Significant infrastructure improvements including a new research space for Staci and upgrades to

analytical laboratories are also underway funded by an earlier grant award from the US Department of Education.

Faculty and students are engaged in many interesting research projects, mostly focusing on issues of importance to the region. The **2009 Special Publication on Geology of the San Joaquin Valley from the Pacific Section AAPG** included no less than five contributions from CSUB faculty and students.

### Inside this newsletter:

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## DEPARTMENT NEWS CONTINUED

**Bob Horton** returned to the Department after three years as the *Interim Associate Vice President for Grants and Contracts*. His expertise and experience were missed and we are happy to have him back.

This fall, we organized a day-long workshop on carbon capture and storage that attracted over 250 guests interested in these technologies and the projects that are proposed for the San Joaquin Valley. **Rob Negrini** and **Jan Gillespie** spoke, together with presenters from Stanford, Lawrence Berkeley and Lawrence Livermore National Laboratories, the University of Texas, and other leading research institutions. All presentations are available on the Department website.



*Our September 25, 2009 workshop on carbon sequestration and storage drew over 250 people, experts from around the country, and local and state political representatives.*

All these positive developments come at a time of unprecedented severe cuts in state funding for the CSUs. As a result of these cuts, we had to lay off all of our lecturers and are now scrambling to offer a revised curriculum with fewer staff while trying not to sacrifice quality. In these challenging times, support from the community and our alumni is appreciated more than ever.

## FACULTY AND STAFF NEWS

**Dirk Baron** This was another interesting year as Department chair. Even with all the new challenges due to the state budget cuts, it is great to see the positive developments in the Department including increased numbers of majors, significant external grant funding, new grant-funded facilities, and an energized student

club. This is the last year of my three-year term as department chair and I will be happy when Bob Horton takes over next year and I can again focus on my teaching and research activities.

Some of the highlights of my work this year outside of department chair duties included (1) a \$300,000 grant award from the National Science Foundation for developing a *Math and Science Partnership* between CSUB and local school districts that will improve math and science teacher training, (2) submission of a manuscript on the geochemical characterization of obsidian artifacts from the Mojave Desert to the journal *Applied Optics*, and (3) organizing a very well-received workshop on the capture of CO<sub>2</sub> from power plants and CO<sub>2</sub> storage in geological formations and its use for enhanced oil recovery.

A personal highlight was a three-week geologist's "trip of a lifetime" this spring when I led a private float trip down the Colorado River through the Grand Canyon. I received a permit after close to 20 years on the waiting list and managed to assemble a reasonably competent team of long-time boating friends from my days in the Pacific Northwest and a few other assorted characters for this adventure. I am pleased to report that I rowed an 18-foot raft through the entire 226-mile trip without any major boating mishaps.



*Dirk and Rob put their hands on the "Great Unconformity" in Blacktail Canyon where the Paleozoic Tapeats Sandstone (~550 Myr) overlays the Proterozoic Vishnu Schist (~1.6Byr) with over a billion years of missing record.*

**Jan Gillespie** As I finished some of my work at Elk Hills this summer, I began to turn to new interests both in Bakersfield and southern Utah. On the home front, I have developed an interest in carbon capture and storage (CCS) and the early and middle Miocene strata in the southeastern San Joaquin Valley and Tehachapi Mountains. I gave a presentation on opportunities for CCS in San Joaquin Valley oilfields at the CCS symposium sponsored by the Geology Department at CSUB. I am working on an NSF proposal with Staci Loewy and Pat Mickler to get funding for the fieldwork and analyses for the Miocene strata study.

Besides teaching classes in petroleum geology and GIS at CSUB, I'm now teaching the Stratigraphy and Sedimentation course—a class I had taught previously at the University of Wyoming and Michigan Tech but not at CSUB. This year there were 26 students and the field trip spent a weekend in Red Rock Canyon and Tecopa Hot Springs measuring sections of clastic and carbonate rocks. I have also been teaching one-day seminar classes in Petroleum Geology and Basic Well Logging for the Pacific Coast section of the Petroleum Technology Transfer Council.



*Jan taking a break on her field trip at “Hole in the Wall”, Mojave National Preserve.*

On the Utah front, two students from CSUB visited this summer. Tyler Nelson spent a month in the field with the paleontologists from the University of Utah (the U-Crew) digging up a Gryphosaur on the Kaiparowits Plateau. Devan Meraz is conducting a study of upper Cretaceous pond microfossils to analyze the difference in

ecology between a normal pond and a pond containing a dead hadrosaur.

On the fun side, I rappelled into a few more slot canyons in Zion and Arches national parks and rode my bicycle across Iowa for the annual RAGBRAI (the Des Moines Register's Annual Great Bike Ride Across Iowa). Four hundred and fifty miles of pedaling and lots of pie, pork chops and sweet corn! No, I did not lose weight.

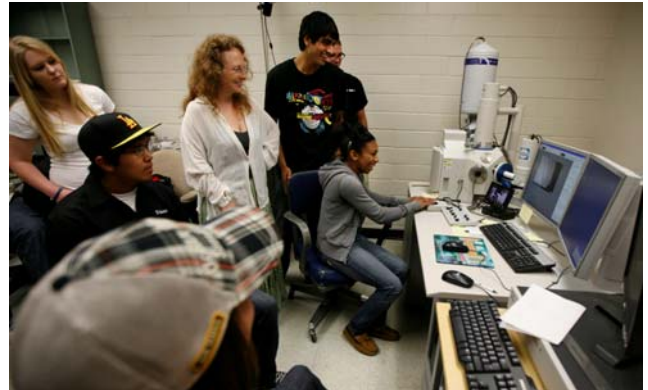
**Bob Horton** As many of you know, I spent the last 2 ½ years as *Interim Associate Vice President for Grants, Research, and Sponsored Programs*. This was a very interesting and rewarding position and during my tenure we were able to increase new competitive awards from a long-standing average of \$10-11 million per year to over \$23 million per year, including a \$5 million grant from the U.S. Department of Education to improve science instruction that includes significant improvements in infrastructure including (for Geology) a new rock preparation facility, upgrades to the SEM, and new equipment for the paleomagnetism lab. I was particularly pleased that during the past year Geology Department faculty received three highly competitive awards from the National Science Foundation totaling over half a million dollars. I also managed to work with graduate student Kay Coodey (now at Vintage Petroleum) and Chevron geologist Larry Knauer on a project studying the effects of steam injection on reservoir properties at Kern River. This work is an extension to earlier work with graduate student Dawne Pennell (now at Aera) and ARCO geologist Rusty Riese (now with BP America). I presented papers at the Pacific Section meeting in Ventura and the National AAPG meeting in Denver based on this work.

I returned to the Geology Department in September and immediately got to work on those projects that had been on the back burner: cleaning and reorganizing my office, developing an SEM course (to be co-taught by Staci Loewy and offered during winter quarter), and working on a manuscript based on the Kern River studies for submission to the AAPG Bulletin. Meanwhile, I have continued with Larry to characterize the

thermal effects at Kern River more thoroughly. The new scanning electron microscope has revolutionized our ability to study pore networks and to identify authigenic phases in the rocks; I have very much enjoyed having more time to work with this incredible instrument now that I am no longer working in administration. A second project I have recently started is working with Rob Negrini on our NSF-funded study of lake cores from Summer Lake in Oregon. So far I have been working with graduate student Dan McCuan in extracting and identifying magnetic minerals (using XRD and SEM) in order to better understand the nature of the paleomagnetic signature. The last time I did this sort of thing was during my dissertation research Colorado School of Mines. It makes me realize just how much my teaching and research interests have evolved over the 25 years that I have been teaching at CSUB!

Finally, one of the highlights of the past year was working with National Geographic production and film crews on a documentary about the origins of gasoline (Man-Made: Gallon of Gas was aired in September). Although my appearance on the show was brief (Rob Negrini also made a brief appearance), I spent three days in the field with their crews and footage from most of the locations I showed them appeared in the show.

**Staci Loewy** Many big things happened this year: three new grants, two new facilities, a manuscript in press and three new research directions. The first grant (\$170,234) is from the National Science Foundation to work with local teachers, CSUB and BC students, CSUB faculty, and the Buena Vista and Kern County museums to enhance the earth science curriculum in the public schools and improve teacher knowledge of earth science topics.



*Staci demonstrating the Geology Department Scanning Electron Microscope to a group of Pam Knight's students from South High School.*

The second grant (\$36,302) is from the Keck Foundation to Jade Star Lackey (Pomona College) and me to support a four-week undergraduate research program to study pluton-wall rock interaction in the Southern Sierra. During summer 2010, students from around the country will come to Bakersfield to conduct field work in Sequoia National Park and to work in labs at CSUB. The third is a CSUB URC grant (\$2350) to develop U/Pb geochronology capabilities at CSUB. Dan McCuan (CSUB student) worked diligently, but unfortunately our LA-ICP-MS is not well suited for this application.

Construction on a new rock sample preparation facility is underway, funded by a \$5 million grant to the school of NSM. The new building, near the California Well Core Repository, will house large rock crushing and cutting equipment and provide a bathroom facility at the repository. Those of you who have worked out there know how exciting this last item is. A new fume hood will be installed in room 355c in Science II over the December break. It will be a specialized hood that



*Bob telling it as it is in the National Geographic Channel's "Man-Made: Gallon of Gas" documentary.*

provides a clean (class 100) work space for preparing samples for isotopic and geochronologic analyses. I have a new paper in press in GSA Bulletin, "*Whole rock Pb and Sm-Nd isotopic constraints on the growth of southeastern Laurentia during Grenvillian Orogenesis*", co-authored with a former graduate student from UNC.

Research opportunities have taken me in three new directions. I established techniques at CSUB for isolating volcanic glass shards from volcanic ash layers found in well cores and cuttings. The compositions of the glass shards can be used to link the ash horizon with a dated volcanic eruption, thus providing the age of the horizon. Both Oxy and Chevron have contracted us (Rob Negrini, Pat Mickler, Dirk Baron and me) to analyze potential ash samples. Jlynn Bowen (CSUB student) and I studied natural oil seeps in the Ojai Valley. I am working with Jan Gillespie, Pat Mickler and Jason and Zorka Saleeby to study the provenance of sedimentary rocks in the San Joaquin Basin. Jan, Patrick and I will submit a proposal to NSF in January to fund this research.

**Rob Negrini** took a difference-in-pay leave last year and used the greater time flexibility such a leave affords to travel more than usual. Highlights included 21 days on the Grand Canyon with the March/April float trip Dirk organized and a 2-3 week trip to Iceland in July/August. Re: the Canyon, he urges everyone to sometime spend three weeks with no email, cell phone, TV, newspapers, internet, etc. All we had to think about was getting up in the morning after a great night's sleep, packing up the boats, surviving the rapids (overrated, but exhilarating), choosing one of hundreds of great campsites, setting up camp, and heading out on interesting, sometimes moderately difficult hikes. Great fossils and even better stratigraphy highlighted a great trip. Thanks, Dirk!

Iceland is another must see, especially for geologists. Blue iceberg fragments washed up on black sand beaches, puffins at 3 yards, cod and lamb for dinner, warm, friendly, intelligent people, geothermal plants, active volcanic features, glaciers to foolishly walk up on, enchanting dwarf

forests, fascinating Viking and otherwise historic and architectural sites, all impacted by volcanic eruptions and ashfalls, long, long days, etc. The list is endless. What are you waiting for? Get up and go!



*Rob with small iceberg on a beach in Iceland.*

The year wasn't all play, though. Rob applied for and received (with Bob Horton), a very difficult-to-get NSF grant from the Geophysics program, which will keep them, their new grad student, Dan McCuan, and several undergraduates (e.g., James Lopez and Pedro Arredondo) very busy over the next couple of years. By the way, the grant is for studying two aborted magnetic reversals that occurred during the past 50,000 years and their implications for microstratigraphy, radiocarbon corrections, and models of the Earth's magnetic field behavior. Rob is also coordinating studies of volcanic ash layers in the sediments of the San Joaquin Valley, and is advising Randy Stephenson and Tracie Miller on their work on the paleoclimate of Soda Lake in the Carrizo Plain. Tracie and Rob presented updates on this work at the PACLIM meeting in Asilomar last Spring, two days after Rob got off the Colorado River. Many undergraduates are also working on this project including Tyler Nelson and Gunnar Tornstrom. Rob also co-authored two papers, one on the potential field geophysics of the Mojave Desert (Langenheim et al. 2009, USGS Open File Report) and the other on the Pleistocene volcanic ash stratigraphy at Summer Lake, Oregon (Kuehn and Negrini, 2009, Geosphere).

**Tom Osborn** continues to do an amazing job with keeping our ever-growing array of instruments, labs, and equipment running.

**Elizabeth Powers** This spring, Elizabeth's many contributions to the Department and the university were acknowledged with the CSUB Staff Forum's **Outstanding Staff Award**.

**Alicia Parks** retired this year after 23 years as the department secretary and over 30 years of service at CSUB. We wish her well and hope she enjoys her well-deserved retirement.

**Oni Brown** from the Dean's office is providing administrative support for the Department until we can hire a replacement for Alicia. We appreciate that she has added this to her many other responsibilities.

#### DONATIONS

We gratefully acknowledge donations to the Department from the following (in alphabetical order):

**Corporations and Organizations:** Aera Energy, American Petroleum Institute, Chevron, Oxy, San Joaquin Geological Society

**Individuals:** Kyle Mayborn, Wool Growers Restaurant (in memory of Richard Lewy)

#### STUDENT NEWS

##### American Petroleum Institute Scholarships

**Katherine Randall, Sarah Haggard, Gelson Gouhart Dos Santos, and Kelly Harrington** received scholarships supported by an endowment from the San Joaquin Valley Chapter of the API.

##### San Joaquin Geological Society Scholarships

**Tracie Miller** received a scholarship to support her thesis research on microcharcoal and pollen in a sediment core from Soda Lake. **Dan McCuan, Gina Gonzales, Jlynn Bowen, and Tracie Miller** received support for field camp.

##### C.E. Strange Scholarships

**Gina Gonzales, JJ Navarrete, Ryan Glauser, Jlynn Bowen, Eric Glauser, Joanna Pounds,**

**Courtney Applewhite, and Yolanda Bravo** received scholarships to support field camp and research.

##### Chevron Scholarships

**Dan McCuan, Tracie Miller, and Sarah Haggard** received a scholarship from Chevron to support their graduate studies.

Sadly, several other endowments did not produce enough income last year for scholarship awards. We are hoping to resume awarding these scholarships next year.

**James Lopez and Travis Aragon** received the **Community College Transfer CSUB-LSAMP Scholarships**.

**Dan McCuan** received an undergraduate research scholarship from the Northern California Geological Society.

##### Geology Student Club

The Club has had a very productive year, organizing its first **Spring Barbeque** in many years, a **Fall Social** for new and returning students, lectures from Jason Saleeby (Caltech), Gail Ashley (Rutgers), and Natalie Bursztyn (BC), several field trips, and numerous outreach activities. Watch out for details on the next **CSUB Geology Spring BBQ on May 21, 2010**.



*Gina the Dinosaur talking to Natalie Bursztyn after promoting Natilie's "Where did all the dinosaurs go?" talk around the campus all day*

The Geology Club is also selling shirts for fundraising. See the Feedback section for the design and an order form. Lastly, the Club has created its own Facebook group to disseminate information. Look for CSUB Geology Club in Facebook or for a link from the Department homepage [www.csub.edu/Geology](http://www.csub.edu/Geology), or click on the Facebook logo above if you are looking at the electronic version of the newsletter to join and stay updated.



2008/2009 Geology Club Officers Gina Gonzales, Dan McCuan (President), Elizabeth Powers, Jennifer Kalkis, and Jason Mohammed.



Catching up with friends at the **Geology Club Spring 2009 BBQ**. Plan on joining us for the **2010 Spring BBQ on May 21, 2010**

## Student Accomplishments

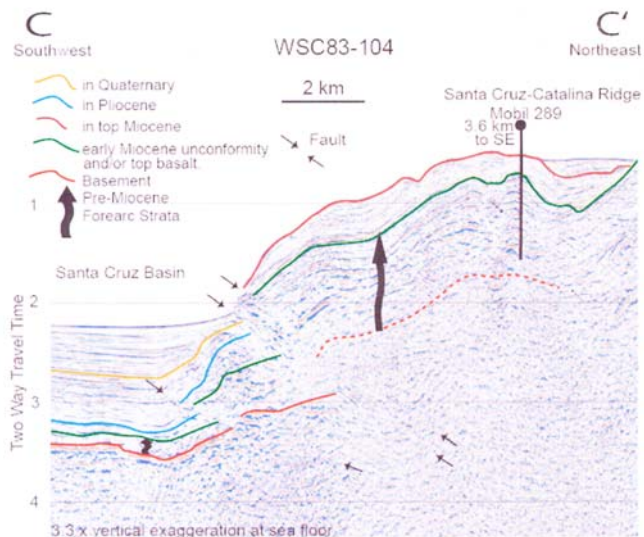
At the spring 2009 commencement, **Dan McCuan** was honored as the **Outstanding Graduate in Geology**, **Greg Gordon** as the **Outstanding MS Graduate of the School of Natural Sciences and Mathematics**, and **Sean Taylor's** thesis was selected as the **Outstanding Graduate Paper** of the school.

**Recent BS/BA Geology Graduates** include **Dan McCuan, Kenneth David Kay, Jlynn Bowen** and **Jennifer Kalkis**

## Recent MS Geology Theses

**Greg Gordon** - Stratigraphic and Sedimentologic Controls on Reservoir Quality and Distribution: Middle Wildcat Group, Grizzley Bluff Gas Field, Humboldt County, California

**Catherine Sarah Schindler** - 3D Fault Geometry and Basin Evolution in the Northern Continental Borderland Offshore Southern California.



One of the cross-sections from Sarah Schindler's thesis

We have started to make MS theses available online on the alumni page of the department website. If you want your thesis online, let us know and send us a completed copyright release form (also available on the website).

## ALUMNI NEWS

This list is complete and accurate to the best of our knowledge but undoubtedly contains errors and omissions. Please send any corrections, updated addresses, news, and pictures for inclusion in future newsletters to Dirk Baron ([dbaron@csub.edu](mailto:dbaron@csub.edu)). We would love to hear from more of our alumni. Note that all degrees before 1985 were in Earth Science, afterwards in Geology.

**John Acord**, BS 1986, MS 1990, works for Oxy at the Elk Hills Oil Field.

**Fidelis Agbor**, BS 1992, is a Major and International Military Affairs Officer in the US Army and last we heard was headed for another 5-month rotation in Kuwait this October. We always enjoy to see him when he occasionally stops by the Department.

**Richard Aldrich**, BS 2000, is a school teacher in the Lake of the Woods, CA area

**Michael Alexander**, BS 1975

**Anthony Amarante**, BS 1981

**Harry Angell**, BS 1997, works for Oxy in Bakersfield.

**Sara Ante** (formerly Draucker), BS 2002, is a geologist with Chevron working in the Duri oil field on the Indonesian island of Sumatra and is getting ready for a transfer to Houston.

**Jason Anthony**, BS 1994, MS 2002, is working for *Shaw Environmental and Infrastructure*, a large engineering firm, in New Jersey.

**James Armstrong**, BS 1988

**Richard Armstrong**, BS 1979, is the Chief of the Oil and Gas Division in the Kern County Assessor's Office.

**Ariel Auffant**, BS 1998, MS 2005 is a geologist for Chevron in Bakersfield.

**Suzanne Baehr**, BS 1989, is a geologist and GIS analyst for Cenergy International and is also pursuing her graduate degree at CSUB.

**David Bates**, BS 1994

**Charlie Bauer**, MS 2002, writes "*I am employed at Kern County Environmental Health Department in the Hazardous Materials/Waste*

*Division. I work with Barbara Houghton P.G., CHg and Brian Pitts, P.G.. My current job duties are: HazMats First Responder Emergency Response Team (I drive the Haz Mat mobile van to various hazardous materials incidents throughout the county), Local Oversight Program (which oversees the clean-up of soil and groundwater from releases of former leaking underground storage tanks located at gas stations, hazardous materials business plan inspection (inspections of facilities that generate hazardous waste and handle and store hazardous materials), and annual underground storage tank inspections of gas station leak monitoring systems, so what happened previously in the 1980's and 1990's won't reoccur. My district is located in the Sierra Nevada and Great Basin Desert Geomorphic Provinces. Which means I begin my inspections at the mouth of the Kern Canyon and extends east to San Bernardino County line at Ridgecrest. I use my geology background on a daily basis. The education I received while at CSUB-Geology Department is invaluable for my daily job assignments. Thanks to all the staff and faculty for doing a great job at teaching me geology."*



*View from Charlie's "office window" on a typical hard day at work.*

**Carol Beahm** (formerly Register), BS 2007, works for Berry Petroleum and started work on her MS Geology degree at CSUB.

**Christy Beiber**, BS 1978

**Dave Beiber**, BS 1974

**Karen Bennett**, BS 2003

**Gregory Berg**, BS 1989

**Michael Blackwell**, BS 1993

**Cheryl Blume**, BS 1986

**Dean Boehler**, BS 1980



**Leslie Boockoff**, MS 2005, is a petrophysicist for Chevron in Houston.

**Floyd Bowen**, BS 1978

**Michael Bowery**, BS 1975

**Scott Briscoe**, BS 1993

**Bryan Bruce**, BS 1993

**Craig Byington**, MS 2005, works for Millennium Mining in Clancy, Montana.

**Meniford Canterberry**, BS 1973

**Christopher Carrisalez**, BS 1994, on the photo right

**Clifford Carter**, BS 1973

**Cheryl Casdorff**, BS 1983, is a supervising planner for Kern County.

**Michelle Casterline**, BA 2001, is a Hydrogeologist with the Kern County Water Agency and also working on her graduate geology degree at CSUB.



**Richard Charboneau**, BA 1998

**Robert Chow**, BS 1973

**Michael Coburn**, BS 1987, MS 1996

**Sophia Luz Cobos**, MS 2006, is now working for Oxy in Columbia, South America.

**Kevin Coodey**, BA 2003, works for the Bureau of Land Management in Bakersfield.

**Rasa “Kay” Coodey** (formerly Cates), BS 2004, works for Vintage Petroleum in Bakersfield.

**Florn Core**, BS 1974, is the Water Resources Manager for the City of Bakersfield.

**Joshua Courter**, BS 2005, is the District Hydrologist for the USDA Forest Service in Porterville.

**Ronald Cribbs**, BS 1976

**Callie Cullum**, BS 1989

**Brian Cunningham**, BS 2006, works as a geologist for Bonanza Creek Energy Operating CO in Bakersfield.

**Kevin Danley**, BS 1994

**Thanh Dao**, BS 1996, Thanh works for Oxy at the Elk Hills Field

**Flora Darling**, BS 1983

**Rick Darke**, BS 1977

**Robert Diosi**, BS 1976

**Anne Draucker**, BS 2003, MS 2007, is working as a geologist for Chevron in Bakersfield. She visited the Department this fall as part of the Chevron recruiting team presenting info about job and internships at Chevron.

**Richard Durbin**, BS 1972

**Neil Durham**, BS 2005, is currently working in Bakersfield for Clear Creek Systems, Inc. as an Engineering Project Manager.

**Kathy Edwards**, BS 2002

**Daniel Erbes**, MS 1993, works as hydrogeologist for the Bureau of Land Management in Carson City, Nevada

**Anne Falcon**, BS 1988, works as geologist for the Bureau of Land Management in Bakersfield

**Alan Febus**, BS 1989

**John Ferguson**, BS 1974

**Ben Fleming**, BS 2006

**Dayne Frary**, BS 1979, is a Senior Geologist for McIntosh&Associates in Bakersfield.

**William Galloway**, BS 1972

**Lance Garcia**, BS 1977

**Boyd Getz**, BS 1980, received an MS from San Diego State University and is now Exploration Manager for JP Oil Company in Bakersfield.

**Lee Gholz**, BS 1973

**Joy Gillick**, BS 1997

**Rene Glass**, BS 1989

**Elizabeth Golob**, MS 2005

**Jacinto Gonzalez**, BS 1976

**Greg Gordon**, MS 2009, is working on his Ph.D. at the Colorado School of Mines.

**Dennis Green**, BS 1990, works for Landmark Graphics (aka Halliburton) in Houston.

**Jatinderpal Grewal**, BS 1994

**Michael Griebing**, BS 1979 is currently the chair of the science department at Stockdale High School in Bakersfield.

**Elihud Grijalva**, BS 1989, works for Chevron, USA, in San Ramon, CA

**Karin Hagan** (formerly Faber), BS 1997, MS 2002 is a hydrogeologist and GIS professional for Kleinfelder in Las Vegas, NV.

**Kevin Hamilton**, BS 1989, MS 2000, is a Waste Management Specialist with the Kern County Waste Management Department.

**Mark Hamilton**, BS 1979

**Greg Hammett**, BS 1996, is the General Manager of the Belridge Water Storage District.

**Dawn Hanson**, MS 1998

**Khalil Hassan**, BA 2004, works for Halliburton in Bakersfield

**Patrick Hauptman**, BS 1983

**William Hawes**, BS 1978

**Mitchell Herd**, BS 1995, last we heard, Mitchell is with Oxy International in Houston, TX

**Gene Hershberger**, BS 1979

**Adam Herrera**, BS 1997, is an Earth Science teacher at North High School in Bakersfield and is also working on his graduate degree in geology at CSUB.

**Bill Hluza**, BS 1998, works for AERA Energy in Bakersfield

**Daniel Holland**, BS 1978 writes *"I was the first to receive an Earth Science Degree with a concentration in Geology. I remember Dr. Coash stopping the commencement exercises to make it know to those attending. I left the field in 1981 to enter into business with my father on the family farm where I remained until 1991 we decided to get out while we were on top. I then went to work for Oscar Mayer, Louis Rich division and remained there for 2 years before being recruited by ConAgra Foods, Butterball Turkey division. I remained with ConAgra Foods for the next 15 years in various positions, the last being West Coast Operations Manager. Two years ago the Butterball division was sold and I opted for early retirement, not wanting to move to Chicago. Everything I have done just goes to show you can do anything with a good education and that's what I received at CSUB. I now spend my time playing with my 2 1/2 year old granddaughter, riding my bike (12 miles a day-not bad for a guy that turned 60 2 months ago) and just about anything else I want to do."*

**Karla Hoobler**, BA 2004

**Barbara Houghton**, MS 1994, is a hydrogeologist with the County of Kern.

**Devon Hovis**, BS 2004

**Patrick Howard**, BS 1997

**Cynthia Huggins**, BS 1983, is a geologist at Aera Energy in Bakersfield

**John Huff**, BS 2002, works as a geologist for CA DOGGR in Cypress, CA

**Carl Hulick**, BS 1984, is the President of CMH Environmental Group, Inc. based in Fullerton, CA. The firm does environmental project design and engineering, professional site remediation and management, and environmental consulting, monitoring and testing. He writes with some stories from the early days of the Department: *"That now reminds me of one of the first Geology Clubs, Bishop Decker, Sue Hooks, Marty Smithey, Cindy Oldham, and me and our party: remember.....we raised close to \$2,000?? (back then) selling deep pit barbeque beef, lettuce, bread, beans and beer from a few kegs!!!! Everyone in the oil patch came to the grass outside the science building and had a great time. We made more money than all of the other clubs combined."*

**Hal Hynds**, BS 1979

**Ellett Jackson**, BS 1975

**Christopher Jamison**, BS 1994

**Robert Jelaca**, BS 1988

**Richard Jewell**, BS 1973

**Joe Johnson**, BS 1992, is working for Oxy in Houston where he works on the Permian Basin.

**Christopher Jones**, BS 1995, is a Senior Geotechnical/Geological Engineer for the California Department of Water Resources in Sacramento. Chris Jones. He writes: *"After leaving CSUB in 1995, I attended graduate school at Colorado School of Mines and studied Geological Engineering. In addition to my graduate studies, I made-up the undergraduate engineering coursework in Geological Engineering while I was there. I also served as a teaching and research assistant there before earning a Master of Engineering degree. For my thesis project, I re-programmed and re-*

*calibrated the Colorado Rockfall Simulation Program, which is a widely-used rockfall hazard modeling computer program. I then went to work at a relatively small geotechnical engineering firm in Denver, where I logged a lot of boreholes, oversaw construction, and designed building foundations. In 1999, I joined Caltrans' Geotechnical Services subdivision and worked on landslide and rockfall mitigation, and retaining wall and bridge foundation design. In 2004, I moved to a water resources engineering firm and worked on dam and levee design and evaluation. This led to my current position at the California Department of Water Resources. I work in the Division of Flood Management and evaluate levees as part of the Department's Non-Urban Levee Evaluations Project.*

*I have found that my geology education at CSUB has served as a very solid base for my engineering education and career. Having a geology background is an invaluable resource to geotechnical engineering. I also have no doubt that my geology degree from CSUB would have served me just as successfully had I pursued any of the more traditional geological careers."*



*Chris touring the eastern edge of the North American Plate in Thingvellir National Park in Iceland.*

**Grant Jones**, BS 1992, works for Swift Energy Exploration Services in Carpinteria, CA.

**Richard Jones**, BS 1975

**Jennifer Kalkis**, BA 2009, now lives in Minnesota.

**Harvinder "Nikki" Kaur**, BS 2000

**Kenneth David Kay**, BS 2009, works for Core Lab in Bakersfield and has started to work on his graduate degree at CSUB.

**F Kirn**, BS 1988

**Lori Kloesel**, BS 1997

**Melvin Krause**, BS 1975

**Tara Kuhn**, BS 1997

**Harmon Larue**, BS 1974

**Dwight Lee**, BS 1986, is a consulting geologist working out of the Sierra Valley area in northern CA

**Lea Lehman**, BS 1973

**Tim Lester**, BS 1985, last we heard owns a geotechnical company in the San Diego area

**Robert Lewy**, BS 1982, teaches high school science at East High School in Bakersfield and geology at Bakersfield College.

**Robert Lisenbee**, BS 1976

**Timothy Long**, BS 1996

**Katherine Longcrier**, BS 1977

**Oscar Lopez**, BS 1973

**William Lowry**, BS 1996

**Christine Luther**, BS 1994

**Charles Magee**, BS 1994, works for Kern County Solid Waste Department

**Adam Mahan**, BS 2001, works as a geologist for Aera Energy in Bakersfield.

**Rosemary Marble**, BS 2008, is a geologist with WZI in Bakersfield.

**Andrew Marinello**, BS 1988

**Frank Martens**, BS 1975

**Laura Martin**, BS 1994

**Kyle Mayborn**, BS 1991, is an associate professor at Western Illinois University.



*This photo sent in by Dan Steward shows Dan, Rob Swartz, and Kyle Mayborn on Rob Negrini's 1991 field trip to the Point Sal ophiolite.*

**Janet McAlee**, BS 1996, works as a geologist for Bonanza Creek Energy in Bakersfield

**Michael McCray**, BS 1994, works as a geologist for Oxy at the Elk Hills Oil Field, CA

**Dan McCuan**, BS 2009, is a graduate research assistant at CSUB working on his MS degree.

**Marc McCulloch**, BS 1993, is a directional driller for Halliburton in Indiana.

**Patrick McCullough**, MS 1995

**Inge McDonald**, BS 1984, is the Exploration Manager for Africa Oil Corporation, based in Calgary, Alberta

**Cari Meyer**, MS 2005, is a Project Geologist at Soils Engineering, Inc., in Bakersfield.

**Gregory Middleton**, BS 1990

**Edward Eugene Miller**, BS 1978 - Edward is the President of Gas TransBoliviano S.A. ([www.gtb.com.bo](http://www.gtb.com.bo)) in Bolivia.

**Michael Minner**, BS 1997, is a geologist for Chevron, USA, in Bakersfield

**Charles Moore**, BS 1991

**Jonathan Mullings**, BS 1993

**Ben Nelson**, BA 2005, works for Core Lab in Bakersfield.

**Mary Newman**, BS 1977

**Geoffrey Nicholson**, BS 1974, is back in Bakersfield as a consulting geologist after almost 20 years in Saudi Arabia with ARAMCO

**Erik Oehlschlager**, BS 1997

**James Ogilvie**, BS 1975

**Joanna Oseguera**, BS 2006. After working for Occidental Petroleum at Elk Hills for over a year, Joanna Oseguera is now working on her Masters in Geology at UC Riverside. She is a part of the GCEC, Global Climate and Environmental Change, program, studying the biotic response of freshwater organisms to climatic changes in the Sierra Nevada. She received full financial support in the form of a private fellowship from the Moscarello family.

**Katie O'Sullivan**, BS 2005, is now a Ph.D. student at the University of Notre Dame where she works with rocks from the moon.

**James Ostdick**, BS 1993, MS 1997 – Jim teaches Earth Science at San Benito High School in Hollister, near the Central California Coast. He writes: *"I completed my long-time goal of backpacking the Pacific Crest Trail on July 23, 2009. Now*

*I'm back at work in San Benito High School in Hollister, teaching Earth*



*Science and*

*saving teenagers from nature deficit disorder. My "Outdoor Club" volunteers have removed more than 11 tons of trash from the San Benito County watershed since 2005.*

*We recently witnessed the release of 5 young condors into the wild at Pinnacles National Monument. I currently reside in San Juan Bautista, about 200 meters from the SAF, and I'm ready to rock!"*

**John Otto**, BS 1975

**Peggy Panero**, BS 1978.

**Kathy Parker**, BS 1985 MS 1993, works as an air quality control specialist for Insight Environmental in Bakersfield

**Nedra Peace**, BS 1975

**Dawne Pennell**, MS 1997, is a geologist for AERA Energy in Bakersfield

**Vanessa Perez**, BS 2005, works as a geologist for CA DOGGR in Cypress, CA

**Paul Phillely**, BS 2004, is an Urban Planner for the City of Sacramento.

**Daphne Porter**, BS 2000, is a science teacher at Arvin High School.

**Michael Quilliam**, BS 2001, works for Plains XP in Bakersfield

**Frances Razo**, BS 1997

**Kenneth Renz**, BS 1980

**Keith Roberts**, BS 1977

**Bill Robin**, MS 1991

**William Rosica**, BS 1981

**Juan Santiago**, BS 2005, works for Oxy and has also started his graduate work in geology at CSUB.

**Lorelea Samano**, BS 2003, MS 2007, is an Earth Scientist for Chevron in Bakersfield. She works for the Temblor Thermal Area Technical Team.

**Michael Sarad**, BS 1977

**Justin Schimnowski**, BS 1994

**Rick Schroeder**, BS 2004, is finishing up his Ph.D. dissertation at the University of Calgary.

**Dean Seaton**, BS 1979.

**Bernard Sentianin**, BS 1984

**Dewey Shanholtzer**, BS 1977

**Andrew Sherman**, BS 1997

**Jennifer Shives**, BS 2005

**Frank Slinkard**, BS 1977, is a Licensed Land Surveyor and has owned 2 local Civil Engineering Companies (Sequoia Engineering and FAS Engineering & Surveying)

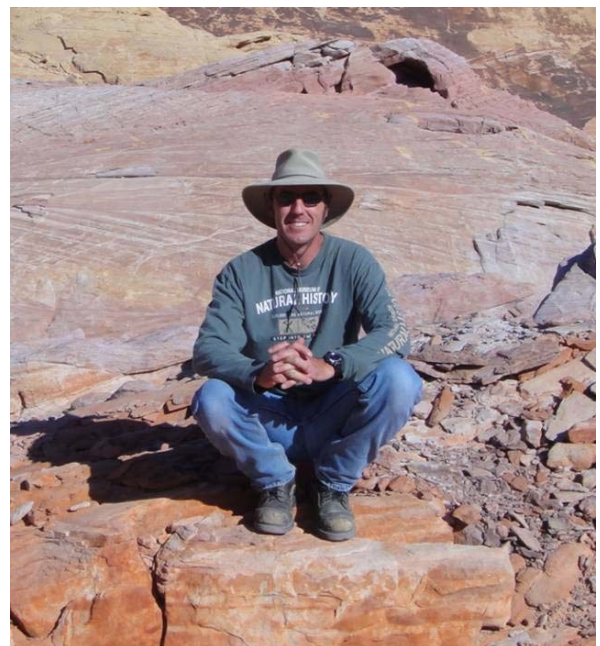
**Ronald Smith**, BS 1994

**Timothy Smith**, BS 1994

**Marty Smithey**, BS 1983, is the Exploration and Development Team Leader - Northern Argentina for Apache Energia Argentina and based in Buenos Aires. He writes: *"I have pretty much worked all over the world. The past 25+ years have actually gone by pretty fast and I have always desired to give something back to CSUB."* He also sent us his impressive CV detailing his many interesting jobs all over the world.

**David Stanton**, BS 1977

**Daniel Steward**, BS 1992, MS 1997, is the Geological Advisor, Deepwater, for Noble Energy in Houston. He writes: *"We currently live in The Woodlands, Texas and love it. I have thought about that bumper sticker a lot: "Texas: I wasn't born here but I got here as fast as I could!" Our four daughters, ages 4 through 10, keep us plenty busy with their activities: dance, volleyball, swimming. My own main diversion of mountain biking is alive and well and don't let anyone tell you there's nowhere to ride in these parts(!). My wife Sandra has her own CPA practice, based in our home office. I worked at Chevron from 1996 to 2006, moving from Bakersfield to New Orleans in 2002 and to Houston in 2004. Work at Noble Energy has been focused on exploration in the deepwater Gulf of Mexico since the day I arrived (Jan. 2006). A couple of my main responsibilities include outside deal evaluation and running the federal outer continental lease sale effort within Noble's deepwater unit; also add regional geology & well control, and earth science recruiting."*



*Dan with Jurassic Aztec sandstone in the background during a recent class in Valley of Fire near Las Vegas*

**George Stewart**, BS 1978, received an MS from USC and now works for Plains E&P here in Bakersfield.

**Keith R. Stewart**, BS 1984

**Steve Story**, BS 1977

**Patricia Stubblefield**, BS 1973

**Robert Swartz**, BS 1992, MS 1995, is a principal project manager of the Regional Water Authority in Sacramento. He presented an interesting talk on "California's Water Future: At the Crossroads of Science and Policy" at CSUB this fall.



**Brian Taylor**, BS 2003, MS 2007, is a geologist with E&B Natural Resources Management Corporation in Bakersfield.

**Sean Taylor**, MS 2008, is a Petrophysicist with EnCana Oil & Gas (USA) Inc. based in Denver.

**Don Terndrup**, BS 1981

**Brett Thompsett**, BS 1997, last we heard worked as a Baker Hughes as directional drilling specialist.

**Kent Thompson**, BS 1978

**Michael Thompson**, BS 1997

**Myron Tiede**, BS 1991, is an Exploration Geologist for Tri-Valley Oil & Gas in Bakersfield.

**Michael Toland**, BS 1982, is an Energy and Minerals Resource Engineer for the California Department of Conservation Division of Oil, Gas and Geothermal Resources office in Bakersfield.

**David Umali**, BS 1997, works for AERA Energy in Bakersfield

**James Vickery**, BS 2008, is a graduate teaching assistant at the Colorado School of Mines where he is pursuing his doctoral degree.

**Joel Waldrum**, BS 1973

**Jonathan Walker**, BA 2005, teaches science at North High School in Bakersfield.

**Michael Walters**, BS 1975, is a teacher at Rio Bravo Elementary School in Bakersfield.

**Eric Wardlaw**, BS 1991

**Robert Wells**, BS 1978

**Matthew Woessner**, BS 1989, teaches high school science in northern Kern County

**Jeffrey Wussow**, BS 2002

**G Young**, BS 1974

**Mladen "Sam" Zic**, MS 2001

### **"Lost" Alumni**

This is a list of the alumni for which we have no current contact information. Please let us know if you have any information about their whereabouts.

Peggy Panero, Dean Seaton, Andrew Marinello, Gregory Middleton, Devon Hovis, David Bates, William Lowry, Bill Robin, Patrick Hauptman, Melvin Krause, Frank Martens, Oscar Lopez, Richard Durbin, Khalil Hassan

## CSUB GEOLOGY K-12 OUTREACH HIGHLIGHTS

Many organizations, companies, and government agencies are concerned about the well-documented shortage of Earth scientists which persists despite the excellent job opportunities in this field and its increasing relevance as we face shortages of natural resources and global change. The Geology Department has spearheaded several initiatives to increase awareness of the geosciences, improve geoscience education in schools, and recruit more majors into our programs.

One initiative are the research participation opportunities for K-12 teachers and high school students that were highlighted in last year's newsletter. This program, originally funded by the National Science Foundation and currently by Chevron, is now in its 7<sup>th</sup> year.

Another initiative is a Physical Geology class for advanced placement students that has been taught by Pamela Knight at South High School since 1997 with support from Jan Gillespie. The year-long class is typically taken by between 40 and 50 seniors. CSUB geology faculty give guest lectures, lead a one-day field trip, and organize a one-day visit to the university with demonstrations and laboratory tours.



*South High School students examining an outcrop in Red Rock Canyon.*

Upon completion of the class, the high school students can receive college credit for our introductory major's class, *Geology 201 - Physical Geology*, through CSUB's "early enrollment" program. The opportunity to earn college credit has

attracted top students that would otherwise take AP classes in other fields. The class has been successful at attracting high school students into geoscience majors. For example, three of the 44 students in the 2008/2009 class started as geology majors at CSUB this fall. A similar class is offered by Steve Kiouses at Ridgeview High School for the first time this year. Both teachers hold MS degrees in geology, a pre-requisite for teaching a college-level class.

These classes were highlighted at the 2009 Annual Meeting of the Geological Society of America as a successful model for other regions across the nation.



*Pam and Jan at the 2009 GSA Meeting in Portland where they presented their experiences from their dual enrollment Physical Geology class.*



*South High School students in their classroom and in our SEM lab.*

## A SHORT HISTORY OF GEOLOGY AT CSU BAKERSFIELD

**Bob Horton** compiled a short history of the Department that may be of interest. The degree program in Earth Sciences was offered starting in 1970 with the first degrees awarded in 1972. In 1981, the degree was replaced by a BS in Geology to better fit the needs of students looking for employment in the local geologic community. Around 1980, a group of people associated with the San Joaquin Geological Society presented the Department with a petition requesting that the Department develop a graduate program in geology. The proposal for the MS Geology was first submitted in 1984, approved in 1986, and implemented in 1987. One reason for the delay was the CSU requirement of at least five faculty for a graduate program. Two new hires, Bob Horton and Rob Negrini, completed the founding faculty of the graduate program with long-time faculty John Coash, Ed Laskowski, and Steve Mitchell. As of the fall of 2009, the Geology Department has five regular faculty, 70 undergraduate majors, and 22 graduate students.

Founding faculty member and Professor and Dean Emeritus **John R. Coash** sent us his perspective on the early days of the Department:

*“The opportunity of helping to build a new university was one that I would not exchange for any other. It was particularly gratifying to start a new Department in my own field. We were looking for faculty with the liberal arts approach, but also with some professional experience. As chair I brought in Dan Jones, a well-known paleontologist with experience from the University of Utah. Given the location of the new campus in Bakersfield, I felt it essential to have people with local knowledge/experience in both petroleum and hydrology. We were fortunate to find Ed Laskowski and John Manning for these positions – competent people, well respected locally. We were also able to procure summer institute support from the National Science Foundation which helped our goals on the education side. Given this head start, we were able to move ahead rapidly in Geology on several fronts, including the Well Sample Repository, and were able to attract good people for the next generation of faculty.”*

\*\*\*\*\*



*So that's the Past and here is a glimpse of the Present and Future: Geology students and faculty on the fall 2009 field trips for Jan's Geology 201 - Physical Geology and Rob's Geology 307 – Structural Geology classes gather for a group picture at the Zzyzx Desert Studies Center before heading out in the field. Also in the picture are a few Bakersfield College students who are planning to transfer to CSUB soon and joined the Geology - 201 field trip with their professor Natalie Bursztyn.*





*Recent graduate Sarah Schindler with colleagues from Berry Petroleum promoting Geology at the Thompson Junior High School Career Day.*



*Rob addressing the crowds at the club's reception for new students at the beginning of the fall term.*



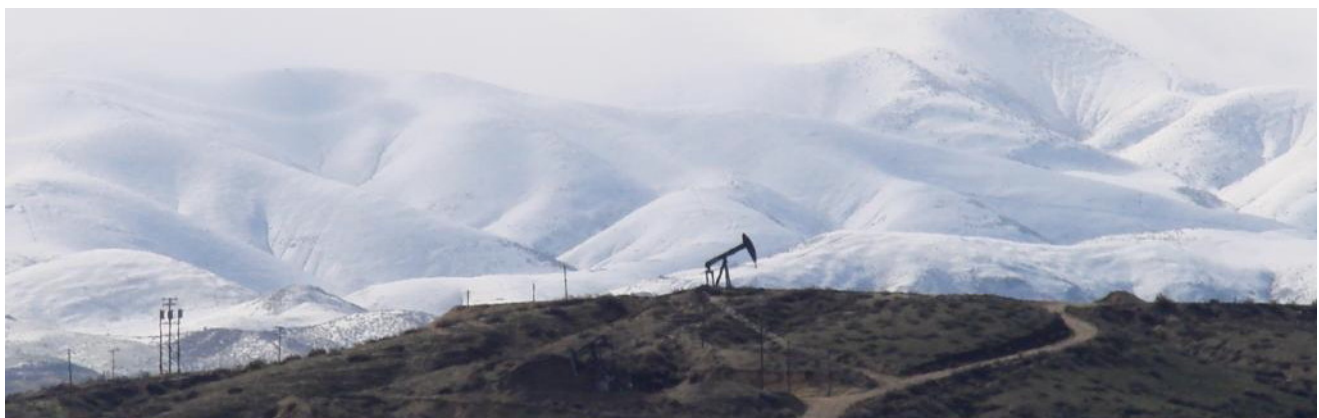
*Staci's new Rock-Prep Lab is taking shape between the Core Repository buildings. Repository users will be glad to learn that it includes a bathroom and an air-conditioned and heated workspace.*



*Rob and Bob sharing a laugh with CSUB President Horace Mitchell and Kern County Supervisor Ray Watson at our Carbon Capture and Storage workshop in September.*



*Geol 201 students getting ready to climb the Kelso Dunes and preparing to hear the famous "singing" dunes from the top.*



*Rare snow on the Temblor Range last winter caught by student Bibi Tan outside of Taft.*

# Feedback

We want to continue to get in touch with more of our alumni. We want to know more about your experience in our geology programs at CSUB, your careers, and how your CSUB education served you in your careers. This information will help us improve our programs, demonstrate the relevance of the CSUB Geology Department, and will help our recruiting efforts by providing inspiration to students who are considering a geology major.

Name: \_\_\_\_\_

Affiliation (if applicable): \_\_\_\_\_

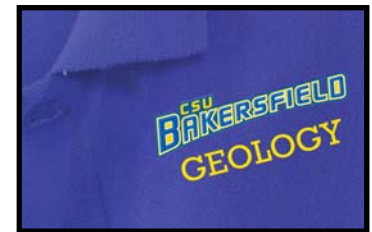
Address: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Email: \_\_\_\_\_

I would be interested in

- serving on a alumni/community advisory board for the Department
- receiving future newsletters as a pdf in an email attachment to help reduce printing and mailing costs
- occasional emails about Department events, jobs, field trips, etc.
- alumni dinner  alumni field trip or other alumni activity like \_\_\_\_\_.
- field trip on the geology of the Central Coast wine country with wine tastings led by geologist and wine expert Bob Horton.
- being featured in alumni highlights on the Department website
- completing a detailed alumni survey
- having my  email address and/or my  professional affiliation listed on the department website
- I would like to order a Geology Club shirt. These are nice quality polo shirts with an embroidered CSUB logo in the front. They are \$25 each.  
Please indicate quantity and size and amount of check enclosed.  
\_\_\_\_XS \_\_\_\_S \_\_\_\_M \_\_\_\_L \_\_\_\_XL \_\_\_\_XXL Total: \$



Additional Comments:

Please return to

**Dirk Baron**

**California State University, Bakersfield**

**Department of Geology**

**62 SCI**

**9001 Stockdale Highway**

**Bakersfield, CA 93311**

**Fax: 661-654-2040 Email: [dbaron@csub.edu](mailto:dbaron@csub.edu)**

**This survey is also available online  
on the department website at**

**[www.csub.edu/Geology/alumni.html](http://www.csub.edu/Geology/alumni.html)**

# Donations

**A Message from Rob Negrini:** The current year has brought both good news and bad news. The good news is that the number of majors has more than doubled over the past few years to a total of 70 undergraduates. The bad news is that, at the same time, the amount of funding from the State of California has dropped precipitously.

You can help. Please dig deep and send a tax deductible donation to the Department. This money will go toward sponsoring student research, student travel and scholarships, all the things that made your experience as a CSUB Geology student special but are not supported by the State anymore. Thanks in advance!

Please make your check payable to **Geology Department Trust Account MX083** and indicate if you want your donation to go to one of the specific causes listed below. **Return to the address on the back of this page, to the attention of the Department Chair.**

Name:

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Affiliation (if applicable):

---

Address:

---

City, State, Zip Code:

---

Email:

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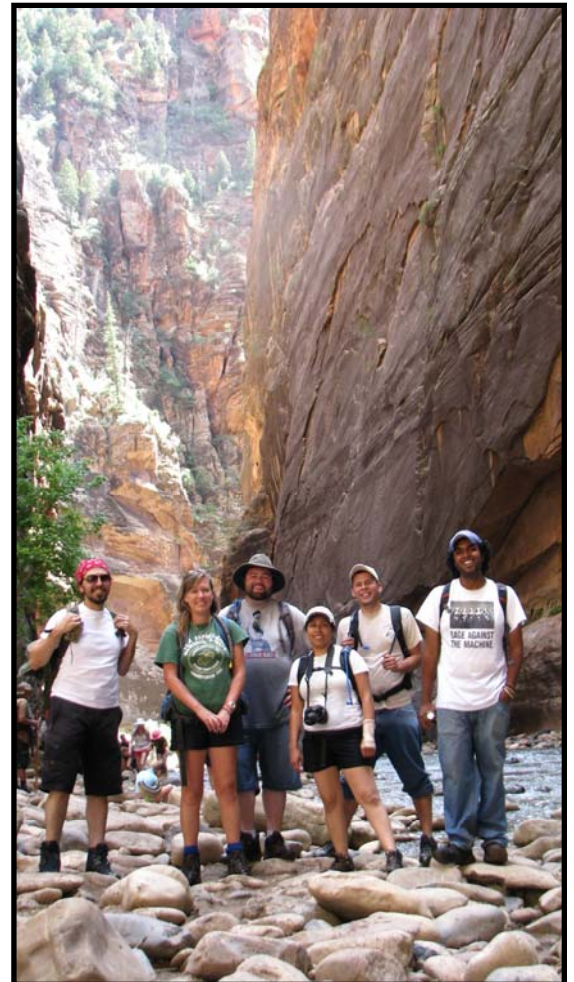
Please indicate the amount you want to donate:

\$50   \$100   \$200   \$500   \$1,000   Other \_\_\_\_\_

Please indicate if you want your donation to go to one of these specific causes:

- Student Scholarships (will be added to the existing CE Strange Scholarship Fund)**
- Undergraduate Student Research**
- Unrestricted**

**Thank You!**



*Geology Seniors exploring Zion National Park on a well-deserved day off from Southern Utah University's 2009 summer field camp. Summer field camp for these and almost all previous graduating students was supported through CE Strange Scholarships.*



California State University, Bakersfield  
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