

DEPARTMENT NEWS

This has been another year so eventful that it is hard to decide where to start with our Department News. For one, you will have noticed above that we are now the Department of Geological Sciences. This name change is one result of the long process of creating two stand-alone departments from what was formerly the Department of Physics and Geology. As for name changes, our school is now Natural Sciences, Mathematics and Engineering. The first engineering programs are funded by major grants from the US Department of Education, totaling about \$10 million. We are working hard to create petroleum engineering and water resources concentrations for our new engineering science degree.

This year brought some important staffing changes. Assistant Professor **Staci Loewy** and her husband **Patrick Mickler**, who had been working as a lecturer for us, left during the summer to take new positions at the University of Texas in Austin. We will miss them and wish them well in their new endeavors. Both will continue to be involved with the department through various collaborative projects. We are currently conducting searches for two new tenure-track faculty to replace them. Watch out for announcements for seminar talks of the top candidates early next year. Alumni input on the candidates will be very welcome.

Linda Davis is a new full-time lecturer. Our wonderful administrative assistant Ellen Armour left for family reasons after only a year with us. We are currently conducting a search for a replacement. In some positive staffing news, the school finally hired a new Specialized Equipment Technician, **Ken Eichenhorst**. Ken is working out very well. We are lucky to have landed him. Lastly, it is bittersweet news that Bakersfield College geology professor **Natalie Bursztyn** decided to pursue a Ph.D. at Utah State University. Natalie was a good friend of the department and inspired many great BC students to work on their geology degree at CSUB.

Despite the fact that students, alumni, and employers tell us that field experiences are extremely important, in recent years it has been challenging for us to fund field trips and student field work. We are excited to report that **Linda** and **David Fiddler** stepped up to the plate this year and gave the department a major donation in the memory of their father, long-time pre-eminent Bakersfield petroleum geologist **Claude Fiddler**, to start an endowment to support field work. See newsletter box on the new endowment for details.

Inside this newsletter:

Department News New major NSF CREST Grant Claude Fiddler Field Endowment Faculty and Staff News Student News Alumni News

DEPARTMENT NEWS CONTINUED

If you look at the group picture from one of our field trips, the first one that was supported by the new **Fiddler Endowment**, on the cover page of the newsletter, you can see that the numbers of our students continue to grow. This year, 19 students received degrees from us!

This has also been a year in which department faculty continued to win major Federal grants. The most amazing of these is a \$5 million National Science Foundation (NSF) grant to a team of faculty under the leadership of Rob Negrini. The grant will create a Center for **Research Excellence in Science and Technology** (CREST) in the department. See the newsletter box on the NSF CREST Grant for more details. Another new NSF grant provides \$200,000 for supporting earth science classes at high schools. We wrote about these classes in the last newsletter. The grant will allow us to expand these classes to other schools. Chevron representatives were so impressed by this concept that they matched the NSF funding for the project. The department currently has four active NSF grants, and another was just completed. For those of you in the know with respect to how competitive NSF grants are, this is quite an accomplishment for such a small department.

Please see the remarks from Department Chair Bob Horton later in the newsletter for more department news.

FACULTY AND STAFF NEWS

Dirk Baron Over the last five years, I spent much of my time on administrative assignments. First three years as department chair and then as the project director for the \$2.8 million CSUB Title-V Part-B grant from the U.S. Department of Education and as the director of the new Graduate Student Center. The grant and the Center are already improving the support services available to our prospective and current graduate students including those working on their MS Geology. With the recent NSF awards I am transitioning from the Title V jot to focus again on working with geology students and on my research program. I am excited about the new energy in the department due to our new major grants and the prospect of adding two new faculty.

Despite all my administrative work, collaborators from the University of Nevada, Las Vegas, and I just had a paper on possible health hazards of dust from the Nellis Dunes, Nevada, off-road vehicle area accepted for publication by the journal *Aeolian Research*.

Another paper the on geochemical characterization geologic and of archaeological obsidian samples with various collaborators has also been accepted by the journal Together Applied Optics. collaborators from with many other institutions, I had four presentations at the 2011 Annual Meeting of the Geological Society of America in Minneapolis this fall.

As the recipient of the 2010/2011 Faculty Research Award, I got to lead the procession of faculty,

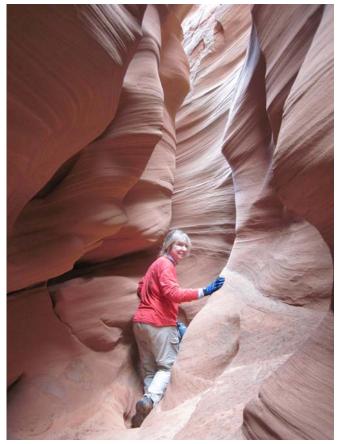


university administrators, and students as the "Faculty Marshall" at the spring commencement.

Jan Gillespie and I just received a \$200,000 grant from the National Science Foundation to work with the Kern High School District to support and expand dual-credit Physical Geology classes at area high schools. We wrote about these classes in the Fall 2009 Department Newsletter. I am also the lead on a \$23,000 mini-grant from Google to explore using geospatial technologies such as GIS and Google Earth in the training of science teachers. As the recipient of the grant, I had a chance to attend a workshop at the very interesting Googleplex in Mountain View this summer and to meet some "Googlers" (that's really how they call themselves!).



Finally, after all my years in the United States of America, I was sworn in as a brand-new American citizen this spring. Jan Gillespie The new CREST grant awarded to the department is going to change a lot of our lives and mine is no exception! My part of the CREST is a sub-project to evaluate three very different reservoir formations (the Temblor, Stevens and Vedder) to test their suitability for carbon dioxide EOR and ultimate long term storage. My students and I will be evaluating the degree of reservoir compartmentalization as well as the pressure response caused by fluid injection and production in three San Joaquin Valley oilfields. Graduate student Jon Goodell is tackling the Stevens reservoir at North Coles Levee and I hope to find students to evaluate the Temblor and Vedder formations soon. Another project involves the development of a southern San Joaquin Valley 3D basin-wide GIS model that can be used for more regional aquifer/reservoir studies.



Geology Disneyland! Jan in Leprechaun Canyon near Hanksville, Utah, looking at the reservoir from the inside.

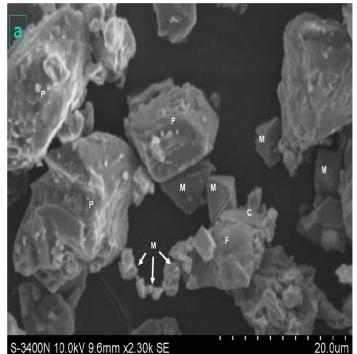
I've been fortunate to get a jump on the project. Funding from NSF and the Department of Energy paid stipends for myself and undergraduate students Simmie Chehal, Gina Gonzales and John Wilson to engage in carbon capture and storage research with scientist Preston Jordan at Lawrence Berkeley National Labs over the summer. We all learned a lot about the most up-to-date carbon capture and storage strategies and the outcomes of early pilot projects. We also learned that Berkeley is a lot different than Bakersfield. The intricacies of parking and recycling were at least as complex as the scientific endeavors at the lab! I hope to bring another student team back to Berkeley in Summer 2012.

Oh yes! Still had time to raft the Grand Canyon, rappel into a slot canyon and go mountain biking

Department Chair Bob Horton Greetings. A lot happened in 2010-2011. We formally separated from Physics and changed our name to Department of Geological Sciences. The good news here is that it ensures that a geologist will always be the Department Chair. The bad news is that it ensures that a geologist will always be the Department Chair. As I am halfway through what will definitely be my last turn as Chair, I guess I won't have to deal with the latter part – it will be up to Dirk, Rob, and Jan to figure that part out. members Department faculty have been aggressively seeking outside funding to support our activities. Jan and Dirk received an NSF grant to expand the high-school geology program that Jan started at South High many years ago. This program has been so successful that Chevron recently agreed match the NSF grant! Congratulations are due to Jan and Dirk. Along those lines was the recent NSF award of \$5million to the Department to establish a Center for Research Excellence in Science and Technology. This is one of the largest grants ever awarded to CSUB. While Rob led the charge on this (and without his dedication and drive it would not have happened), all of our faculty played key roles in this effort. The main thrust of this award is to provide funding for undergraduate and graduate

students to participate full time with faculty in research projects. And with this award, we now have four NSF-funded projects active at one time; more than the entire university ever had at the same time in the past! On a different note, Drs. Staci Loewy and Patrick Mickler left the department for greener pastures at the University of Texas at Austin, so we are now conducting national searches for replacements.

As for my own activities, aside from assisting with the CREST proposal (and the never-ending hassles of being Department Chair), I worked on Rob's and my NSF-funded study of the paleomagnetic record at Summer Lake, OR. My role was to determine the mineralogy of the magnetic carriers. This involved extracting magnetic separates and studying them using a number of techniques including XRD and SEM-EDS. Graduate students Dan McCuan and James Lopez were involved, and during the summer I had undergraduate Greg Thompson, two high school students, and a middle school teacher working on this as part of the Chevron-funded REVS-UP summer program.



SEM secondary electron images of magnetic separates from 1100 cm depth. a.) Detrital titanomagnetite (M), plagioclase (P), chlorite (C) and ferromagnesian-silicate grains (F).

With the SEM we obtained over one-thousand chemical analyses of individual magnetic spinel grains (mostly titanomagnetite) smaller than 40 μ m. I recently presented the results at the American Geophysical Union meeting in San Francisco. It isn't every day that high school students and a junior-high school teacher are coauthors on papers presented at international meetings. Meanwhile, I keep plodding along on my studies of San Joaquin basin oil field reservoir sandstones, something that will accelerate with the CREST funding.

So, it is an exciting time for our department!

Staci Loewy and Patrick Mickler Hello everyone! As many of you know we have left CSUB. It was a very difficult decision for us. We hated to leave our wonderful colleagues and students in Geology, but we found amazing opportunities for both of us at The University of Texas at Austin, our alma mater. We now both have permanent fulltime research positions.

Staci: I am running a lab facility in the Department of Geological Sciences that includes a thermal ionization mass spectrometer (TIMS) that measures isotopic ratios of elements like lead, strontium, uranium, neodymium, and osmium and two ultra clean laboratories where samples are prepared for the TIMS. It is fun to be back in the lab and to be involved in research on a wide range of topics, from strontium isotopic compositions of water in local creeks to osmium isotopic compositions of mantle xenoliths. Please contact me if you have research ideas that may need isotopic analyses. I would love to collaborate with folks from CSUB, particularly if students want to come to UT to learn how to do the work themselves.

Patrick: I am a research scientist at the Bureau of Economic Geology at UT. I am studying the geochemical changes to fresh groundwater, deep aquifer brines and aquifer minerals when CO_2 -rich fluids are introduced. The experiments are run over a range of temperatures and pressures, from near surface conditions to 100 C and 200 bar, the conditions likely encountered when injecting super-critical CO_2 into a deep saline aquifer. The results of these studies will help predict the

potential changes to groundwater and rock chemistry during carbon capture and sequestration projects. This work overlaps with many of the research goals of the CREST Grant. I will be back in Bakersfield from time to time working with folks at CSUB.

In moving out here we took two weeks to drive with two kids (3 and a half years and 8 months) and two dogs. We camped and visited friends along the way in the northern California, southern Nevada, central Utah, central Colorado, and northern New Mexico. It was a fantastic trip! Other than catching up with long-lost friends, some of the highlights of our trip were driving through the spectacular Ebbetts Pass in the Sierra Nevada; our daughter catching and eating her first



Staci and Patrick with Sierra and Lyle in Yosemite. They will miss the Sierra Nevada with the closest mountains a 7-hour drive from Austin.

fish, a "Monster Trout" (*aka: very large rainbow trout*) while camping in the Manti-La Sal National Forest on the Wasatch Plateau; and buying, roasting and peeling a year's supply (30 lbs) of hatch chilies in Albequerque to stock our freezer. We are now pretty well settled in here in Austin and catching up with old friends. The kids are enjoying their new school, new friends and taking advantage of all the great things Austin has to offer.

We miss y'all and wish you the greatest success in all of your endeavors. Please contact us if you find yourself in our neck of the woods. Austin is a wonderful city to visit and our door is always open.

Rob Negrini. This was another productive year for my students and me, research-wise. I was a coauthor on two papers, one in Geosphere, GSA's new online journal, and the other in *Quaternary* International. The first was on the volcanic ash stratigraphy recorded in the sediments of Summer Lake, Oregon, and the second was on the lakelevel history of Lake Bonneville for much of the past 50,000 years. My students and I gave five presentations at national meetings of the Geological Society of America, the American Geophysical Union and the west coast meeting of the America Association of Petroleum Geologists. M.S. students Gary Henley, Dan McCuan, and James Lopez were authors, and coauthors included a CSUB B.S. alumnus currently teaching at Ridgeview High School (Kevin Danley), a Stockdale High School student (Abhishek Kylasa), and CSUB students, Rebecca Ramirez and Pedro Arredondo. The poster at the Alaska meeting of the AAPG presented Gary Henley's M.S. thesis results wherein he reinterpreted the classic faultbend fold model of Medwedeff (1992) for the Wheeler Ridge anticline. Using a much bigger well log dataset, Gary showed that a much simpler structure (i.e., no backthrust wedge) was sufficient to model the anticline if two major unconformities trimmed the top of the anticline during the Miocene. One set of presentations focused on Dan McCuan's M.S. Thesis. These works included identifying a two-thousand year long drought in the Great Basin starting 39,000 years ago and discovering that, during the most recent aborted attempt at a magnetic pole reversal, the Earth's magnetic pole parks over spots in easternmost Asia and North America. These spots are associated with cold regions in the lowermost mantle that may induce downwelling in the Earth's outer core thereby producing localized magnetic "north poles" that compasses would point to when the main field dies down for a while.

I attended a family reunion near Lake Placid, NY this past summer. Even though I was born and raised only a few hours away in the Berkshires of westernmost Massachusetts, this was my first trip to the Adirondacks. The beautiful scenery on lands mostly accessible to the public was peppered with historically interesting small towns. I highly recommend it for readers planning to visit the northeast U.S.



Lake Placid from the top of Whiteface Mt., Adirondacks N.P. Rob's nephew and niece, Aaron and Shawna, for scale.

The CSUB Contingent at the Summer 2011 Southern Utah University Field Camp **Elizabeth Powers** Fall 2011 marks the beginning of my 11th year with the geology department. It is amazing how time flies. I am so fortunate to get to work with great faculty and students year after year. There have been so many changes over the last year I don't even know where to begin. I continue to slowly work towards my MS in Geology while working and spending time with my husband and three little girls. I am still very active with the Geology Club and look forward to all the great events they have planned this year. I am excited for all the positive changes that are coming about with all the grants the faculty have received. So here's to another decade with CSUB, amazing things are to come!



Claude Fiddler Endowment to Support Field Experiences

In recent years with ever-rising costs and a moratorium on increasing class fees, it has become difficult for us to fund field trips and we had to cut back on them. This was despite the fact that our students, alumni, and employers all tell us that field trips and field work are absolutely essential in the training of geologists.

So it was timely when **Linda and David Fiddler** made a very generous \$100,000 donation to the department this year to support field experiences. The donation was made in the memory of their father, longtime geologist and petroleum engineer **Claude Fiddler**, who served 32 years with Chevron, many of which were spent in Kern County.

"He loved going out into the field more than anything else," said Linda of Claude Fiddler. She recalls countless times when her father would load brother David and her up in the car and set out from their Taft home to drive around the oil fields, Claude stopping to point out different rock formations and pumping units all the way.

Claude Fiddler and his wife were longtime philanthropists in Bakersfield supporting many worthy causes. However, "a lot of the things he did, he didn't do in his name," says David Fiddler. "We thought it would be nice to have something in my father's memory in the community.

Most of the text above is from an article in the Bakersfield Californian about the endowment. The full article with much more information can be found here: http://www.bakersfield.com/entertainment/local/x233130080/CSUB-geology-department-donation-truly-rocks . The endowment and the importance of field work were also featured in the Spring 2011 *Your* CSUB Magazine. We are reprinting the article from the *Your* CSUB magazine at the end of this newsletter.

The first activity that was supported by the endowment was a field trip to the Zzyzx Desert Studies Center. The picture on the cover page of the newsletter shows Geol 201 and Geology 307 students and faculty before heading out into the field. We also had Bakersfield College professor (and CSUB geology alumna) Cari Meyer along with some of her students who are planning to transfer to CSUB soon.

We sure appreciate the generosity of the Fiddler families and their support. We are sure the students and future geologist who will benefit from the donation will make Claude proud. We are hoping to grow this endowment so please consider contributing to it. See a picture of the Fiddler families at the Spring 2011 Geology Club BBQ in the Student News Section.



Claude Fiddler conducts field work in Alaska in 1959.

CSUB NSF CREST Grant

The Department of Geological Sciences has been awarded \$5 million over five years by the National Science Foundation (NSF) to establish a Center for Research Excellence in Science and Technology (CREST) focusing on research topics important for the economic future of the San Joaquin Valley's agriculture and petroleum industry. These projects include 1) projecting the timing and amount of water resources delivered to the Valley from the Sierra Nevada over the next several decades and 2) geological site characterization for potential underground carbon storage facilities. The grant proposal received several endorsements from regional water agencies and institutes, three major oil companies, cooperating Ph.D. granting universities throughout the western United States, and several national laboratories and agencies. If the Center is successful, the grant can be renewed for another \$5 million and another five years.

The grant was awarded after a highly competitive proposal process. In awarding the grant, the NSF recognized the potential for substantive peer-reviewed scientific research at CSUB, a university that serves a student population that is under-represented in Science, Technology, Engineering and Mathematics disciplines. Accordingly, the bulk of the research will be conducted by CSUB students recruited from the Bakersfield area, several of whom will receive generous annual stipends, tuition and travel support. The total support for undergraduates will be ~\$20,000/year for undergraduates and more than \$30,000/year plus benefits for graduate students. Students involved in the Center will receive the research experience, education, and skills necessary for eventual Ph.D. study at collaborative universities and/or leadership positions in local industry and government.

The faculty members associated with the grant are Drs. **Dirk Baron**, **Jan Gillespie**, **Bob Horton**, **Staci Loewy**, **Pat Mickler**, and **Rob Negrini** of the Department of Geological Sciences and Dr. **Eduardo Montoya**, a statistician from the Department of Mathematics. Those interested in more information are encouraged to contact Negrini at 654-3027 or <u>rnegrini@csub.edu</u>.



Dr. Dick Smith, the program director of the NSF CREST program addresses Geology students, faculty, and CSUB administrators during a site visit to the new NSF Center for Excellence in Science and Technology in the Department of Geological Sciences.



National Science Foundation WHERE DISCOVERIES BEGIN

DONATIONS

In this time of shrinking state funding for the CSUs, support from the community and our alumni becomes essential for maintaining the quality of the educational experience of our students. We gratefully acknowledge donations to the Department from the following (all in alphabetical order and all very much appreciated):

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

Individuals Fidelis Agbor, Abby and Ariel Auffant, Dirk Baron, Julio Blanco, Florn Core, Linda Fiddler, David Fiddler, Jan Gillespie, Gene Hershberger, Bob Horton, Staci Loewy, Kyle Mayborn, Patrick Mickler, Rob Negrini, and Marty Smithey.

Apologies if we forgot someone, let us know so we can acknowledge you in next year's newsletter.

STUDENT NEWS

At the spring 2011 commencement, Stanley Hensley was honored as the Outstanding Graduate in Geology.



Stan Hensley with Dean Julio Blanco (left), his father, and Staci Loewy at the 2011 NSME Honors Brunch

Recent BS/BA Geology Graduates Michael

Adamson, Jason Marc Mohammed, Pedro Arredondo, Paul Bowles, Simmie Chehal, Scott Dorman, Gina Gonzales, Jonathan Goodell, Stanley Hensley, Shawn Larkin, Dustin Leavitt, Robin Richardson, Heidi Snow, Gunnar Tornstrom, Michael Adamson, and Harold Holt.



Spring 2011 Commencement - Pedro Arredondo, Simmie Chehal, Michael Adamson, Jon Goodell, Stan Hensley, Gina Gonzalez, Robin Richardson (from left)

Recent MS Geology Graduates: Gary Henley, Dan McCuan.

C.E. Strange Scholarships Robin Richardson, Marco Allain, Kelly Harrington, Kathy Randall, Ashleigh Blunt, Alexandra Rose, Stan Hensley, Bibi Tan, Angela Thornbough.

Kelsey Padilla, Jon Goodell, Raisa Lora, Rebecca Rodriguez, and Walter Fuentes received **Africa Array Scholarships.** Walter actually got to go to Africa this summer for a research experience.

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

Community College Transfer CSUB-LSAMP Scholarships. Jennifer Head

Greg Thompson received the Jazz Festival Scholarship.

Robin Richardson, Marco Allain, Kelly Harrington, Kathy Randall, and Ashleigh Blunt were awarded **SJGS Field Camp Scholarships**.

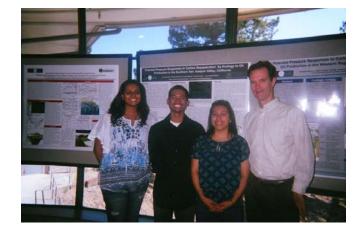


Geology 490 Senior Field Seminar at Poleta Folds.

Geology Student Club

The Club has had another very productive year, organizing its third **Spring Barbeque**, a Fall **Back to School Reception** for new and returning students, several guest speakers, and a number of field trips. The club has also been very active in community outreach activities such as visiting K-12 schools and helping with geology lessons.

Mark your calendars and watch out for forthcoming details on the 2012 CSUB Geology Spring BBQ on May 18 2012.



Students Simie Chehal, John Wilson and Gina Gonzales (left to right) along with Lawrence Berkeley National Labs scientist Preston Jordan (right) presented their summer research on carbon capture and storage at LBNL.

Join the CSUB Geology Club site on Facebook to keep up on club activities, and job and scholarship opportunities



AAPG Imperial Barrel Award

This year, for the first time we have a team of students entering the prestigious Imperial Barrel Award competition (http://www.aapg.org/iba/).



Jan Gillespie and professionals from the community are mentoring the group. Wish them luck and watch out for news on how they did in next year's newslettter.



Linda and David Fiddler and their families enjoying the Geology Club's Spring 2011 BBQ

ALUMNI NEWS

Alumna Anne Draucker has created a CSUB Geology Alumni Facebook Group. Join to connect with old friends and facebook. find out news about department events.



The list of alumni below is complete and accurate to the best of our knowledge but undoubtedly contains outdated information, errors and omissions. Please send any corrections, updated addresses, news, and pictures for inclusion in newsletters future to Dirk Baron (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 as a geologist for Oxy at the Elk Hills Oil Field.
- Michael Adamson, BS 2011, is working at Stratagraphic.
- Fidelis Agbor, BS 1992, Agbor is a Major in the U.S. Army and has served in Iraq, Kuwait, Ethiopia, Haiti and Kenya. He visited the department this summer and presented his former mentors and professors Rob Negrini and Bob Horton with a special military coin.



While visiting, Fidelis told us that his geology degree has helped him in his 18-year military career. For example, landforms play a big role in where adversaries hide. By being able to identify the geological makeup of the terrain, one can decide on the best form of ammunition to break through the rock. Furthermore, geophysical tools can determine the thickness of walls and whether buildings contain vacuous areas in which enemies can hide. So you never know to what career path a geology degree can lead. In case you did not know, General and former Secretary of Defense Colin Powell also had a degree in Geology.

- 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, is in Oman with his family and working for Oxy there.
- Sara Ante (formerly Draucker), BS 2002, is a geologist with Chevron in 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.
- Pedro Arredondo, BS 2011, works for Oxy and is also working on his MS Geology.
- Ariel Auffant, BS 1998, MS 2005 is a Development Geologist for Chevron in Bakersfield working on the Kern River Asset Development Team and the Horizontal Wells & Expansions Team.
- 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, works for the Kern County Environmental Health Department in the Hazardous Materials/Waste Division and is part of the HazMats First Responder Emergency Response Team. He is one of three alumni who recently passed their Professional Geologist exams. All on the first try! Charlie writes: "I am enjoying working in eastern Kern County. My district covers three Geomorphic Provinces: Sierra Nevada, Mojave Desert, and Great Basin Desert. What I learned while attending CSUB Geology I use every day."

Carol Register Beahm, BS 2007, works for Berry Petroleum and is also working on her MS Geology degree at CSUB.

Jessie Becerra, BS 2009

- **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, works for Chevron in Houston where she is a wellsite geologist in the Deepwater Exploration Business Unit and is on the Geology and Geophysics Operations Team.
- Floyd Bowen, BS 1978
- **Jlynn Bowen**, BS 2009, works at Tri-Valley Corporation in Bakersfield
- Michael Bowery, BS 1975
- **Paul Bowles,** BS 2010, works for DHI Well Services.
- 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, is a school teacher in Bakersfield.
- Clifford Carter, BS 1973
- **Cheryl Casdorph,** BS 1983, is a supervising planner for Kern County.
- Michelle Casterline, BA 2001. is a Hydrogeologist II with the Kern County Water Agency and also working on her graduate geology degree at CSUB. She recently passed her Professional Geologist exams and writes: "You now have three CSUB students who have passed the Professional Geologist Exam on the first try J. I received my letter in the mail on Saturday (reminder-Charlie Bauer took the exam March 2010 and Cari Meyer took the exam Oct 2010). My husband says, "Go CSUB Geology Department". I thank all of the professors, past and present, in the CSUB Geology department

for the wonderful education you have provided me." Congratulations to Michelle, Cari, and Charlie!

- **Richard Charboneau**, BA 1998, is a teacher in Lake Isabella
- Simarjiit "Simmie" Chehal, BS 2011, is applying to graduate schools. Simmie (left) and fellow student Alexandra Rose were recognized by the university for their volunteer work creating an interpretive map for the Panorama Vista Preserve in East Bakersfield.



Robert Chow, BS 1973

- Michael Coburn, BS 1987, MS 1996, is a teacher at Highland High School in Bakersfield where he teaches Earth Science and AP Environmental Science.
- **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, is a geoscience technician in Aera Energy's the Belridge Light Oil Recovery Process Evaluation team."
- Florn Core, BS 1974, retired at the end of 2009 after a long career as 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 for Bonanza Creek Energy Operating Co. in their Denver office.
- 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, is a teacher at Bakersfield College

Robert Diosi, BS 1976

Scott Dorman, BS 2011

Anne Draucker, BS 2003, MS 2007, is working as a geologist for Chevron at their headquarters in San Ramon, CA.

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

Ryan Glauser, BS 2010, is working on his MS Geology degree at CSUB.

Jon Godell, BS 2011, is working on his MS Geology degree.

Elizabeth Golob, MS 2005

Gina Gonzales, BS 2011, is starting graduate school at Purdue.

Jacinto Gonzalez, BS 1976

Greg Gordon, MS 2009, is a Ph.D. student in Geology at the Colorado School of Mines, and works as a research assistant in the Chevron Center of Research Excellence. We talked to him at the GSA meeting in Minneapolis this fall.

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

Jatinderpal Grewal, BS 1994

Michael Griebling, 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, works for Aera in Ventura.

Khalil Hassan, BA 2004, works for Halliburton in Bakersfield

Patrick Hauptman, BS 1983.

William Hawes, BS1978

Gary Henley, MS 2011. Gary finished his M.S. Thesis titled "Late Miocene Uplift at Wheeler Ridge, Kern County, CA". Upon finishing Gary was promoted to a geologist at Occidental Petroleum.

Stanley Hensley, BS 2011, is starting graduate school at the Texas Tech University.

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

Gene Hershberger, BS 1979

Adam Herrera, BS 1997, is now teaching honors physics and earth science at Stockdale 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, is retired after a long career in agriculture and the food industry.

Harold Holt, BS 2011, writes: "I am working as a mudlogger at DHI Services. I am now working on my second well in the Kettleman City area. This time I'm on Kettleman North Dome. My last well was/is in the middle of Tulare Lake and reached a total depth of 16,950 feet. Not the deepest in California but darn deep! Right now we are aiming for the Monteray shale and making good progress toward getting there, in fact we should, if my calculation is correct be at TD by Sunday. I have to say I hit the jackpot with this job, thanks in no small part to the BS degree I earned at CSUB."

Karla Hoobler, BA 2004

Barbara Houghton, MS 1994, now works as a county hydrogeologist in Roseville, near Sacramento, CA.

Devon Hovis, BS 2004

Patrick Howard, BS 1997

Cynthia Huggins, BS 1983, is a geologist at Aera Energy in Bakersfield and the president of the Pacific Section AAPG this year.

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.

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.

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 Oxy in Bakersfield and has started to work on his graduate degree at CSUB.

Ric Kirn, BS 1988

Lori Kloesel, BS 1997

Melvin Krause, BS 1975

Tara Kuhn, BS 1997

Harmon Larue, BS 1974

- Shawn Larkin, BS 2011
- **Dustin Leavitt**, BS 2011, was recently hired by Schlumberger and is working on his M.S. degree at CSUB.

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

Lea Lehman, BS 1973

Jason Leiran, BS 2008

Tim Lester, BS 1985, 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.

Andrew Marinello, BS 1988

Frank Martens, BS 1975

Laura Martin, BS 1994

Kyle Mayborn, BS 1991, is a professor of geology at Western Illinois University.

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, MS 2011, works for Oxy and is teaching our Sedimentation and Stratigraphy class this fall.
- **Marc McCulloch**, BS 1993, is a directional driller and partner in a group based in Bakersfield. He is also a partner in the Three Floyds Brewery in Chicago.
- **Patrick McCullough**, MS 1995, is a Senior Geologist for ETIC Engineering's office in Pasadena, California. He stopped by the department this fall.
- **Inge Riis McDonald,** BS 1984, works for Maersk Oil and Gas and is based in Copenhagen, Denmark.
- **Cari Meyer**, MS 2005, is teaching geology at Bakersfield College.
- **Gregory Middleton**, BS 1990

Edward Eugene Miller, BS 1978 - Edward is the President of Gas TransBoliviano S.A. in Bolivia.

- **Michael Minner**, BS 1997, is a geologist for Chevron, USA, in Bakersfield.
- Jason Marc Mohamed, BS 2011
- Charles Moore, BS 1991, worked for Goode Core Analysis (later Core Lab) for over 30 years. We were sorry to hear from his wife Alice that he passed away in 2006. She also passed on some recollections "We had fond memories of Dr. Mitchell's Geo 101 and Dr. Laskowski was always my husband's favorite. Charles (through Goode Core Analysis) contributed a great deal to that 'rock sample warehouse' (the California Well Core Repository) on campus. There were many core samples he helped them get started with and continued to contribute through the years. It was his way of helping to educate others and show his appreciation for the education he had received at Cal State."

Jonathan Mullings, BS 1993

- J.J. Navarette Bolanos, BS 2010
- 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, is a geologist for Engineering/Remediation Resources Group (ERRG) in the Bay Area.

James Ogilvie , BS 1975

Joanna Oseguera, BS 2006, finished her Masters in Geology at UC Riverside and is back in Bakersfield. She recently accepted an internship offer as a geologist for Chevron, USA.



- **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 teaches Earth Science at San Benito High School in Hollister, near the Central California Coast.
- **John Otto**, BS 1975, recently retired as the Assistant Manager of the Tehachapi-Cummings Water District. He resides in Tehachapi.
- 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 Bustamante, BS 2005, is an Associate Mineral Resources Engineer for the California State Lands Commission in Long Beach.

Paul Philley, BS 2004, got a graduate degree from UCLA and now works Sacramento Metropolitan Air Quality Management District.

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

Robert Privett, BS 2008, was promoted to well site geologist at Occidental Petroleum.

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

Frances Razo, BS 1997

Raquel Ramirez, BS 2008

Kenneth Renz, BS 1980

Robin Richardson, BS 2011, works for Orion International Oil and Gas.

Keith Roberts, BS 1977

Bill Robin, MS 1991

Jason Robbins, BS 2008, is a Technical Assistant Geologist with on Chevron's Kern River Asset Development Team in Bakersfield.

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 a Development Geologist for Chevron in Bakersfield. She works at the Kern River Field.

Michael Sarad, BS 1977

Justin Schimnowski, BS 1994

Sarah Schindler, MS 2010, works for Berry Petroleum in Bakersfield. She is also currently working on publishing her recently finished M.S. Thesis.

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

Dean Seaton, BS 1979.

Bernard Sentianin, BS 1984

- **Dewey Shanholtzer**, BS 1977, is the President and the Geologist of Dewey Data, Inc. a Geophysical survey and video company.
- Andrew Sherman, BS 1997, is a Geologist with Rio Tinto Minerals in Boron.
- **Ced Shermer**, BS 2008, works for Baker Hughes as a mud engineer in Broussard, LA.

Jennifer Shives, BS 2005, works for the California Department of Oil and Gas and Geothermal Resources in Bakersfield.

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. Marty made another generous donation to the department which was matched by Apache. He also hosted student Ben Marseille on a visit to Argentina. Marty writes: "Apache just completed South America's first ever unconventional shale gas well in the Jurassic Los Molles shale formation. The total horizontal section drilled is approximately 3450 feet and the 10 multi-stage frac initially tested for more than 5mmcfd and is currently cleaning up. And this is my baby! We are now preparing to drill our second horizontal in the Vaca Muerta unconventional shale that is expected to spud before the end of the year. Myself along with Apache's vice-president and other upper management just gave a presentation to 25 investment companies both in here the office and online. I could not believe the numerous questions that I received and the immense interest in Apache's Unconventional activity in Very exciting times in the O&G Argentina. business."

Heidi Snow, BS 2010, is back in Bakersfield and working on her MS Geology.

David Stanton, BS 1977

Daniel Steward, BS 1992, MS 1997, is the Business Unit Exploration Manager for Noble Energy's West Africa Business Unit. Dan recently wrote us an excellent letter of appreciation and announced that he is planning on setting up a trust-based donation to the department. Dan writes: "In late October 2010, I was promoted to Exploration Manager, Noble Energy African Business Unit. We are exploring within the offshore areas of Equatorial Guinea and Cameroon with a crew of about 14 people. The team is based in Houston. I have been given multiple crash courses regarding amplitude variation with offset and seismic inversion, while they have received crash courses in depositional systems and seismic stratigraphic interpretation (thank you Jan!). I have been to Cameroon (remembering I did field camp in 1990 with Fidelis Agbor, from Cameroon!) once, Kuala Lumpur to meet with our partners, and will go to Equatorial Guinea in mid-October. Add a couple of trips to London. This coming from a boy who originally was happy staying within Kern County.

- 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. Rob visited campus last year and gave a very informative presentation to a packed house of science students on cooperative management of water resources by agriculture, industry, and cities in the Sacramento area.
- **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 Associate Oil and Gas Engineer for the California Department of Conservation Division of Oil, Gas and Geothermal Resources office in Bakersfield.
- **Gunnar Tornstrom,** BS 2010, is working at Rio Tinto Mining in Boron as an environmental specialist.
- **David Umali**, BS 1997, works for AERA Energy in Bakersfield

James Vickery, BS 2008, finished his MS Geology at the Colorado School of Mines and is back in Bakersfield.

Marco Voinich, BS 2009

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 mailing address. Please let us know if you have any information about their whereabouts.

Richard Aldrich, Devon Hovis, Dean Seaton, Harry Angell, David Bates, Sophia Luz Cobos, Than Dao, Richard Durbin, Dennis Green, Khalil Hassan, Patrick Hauptman, William Hawes, Melvin Krause, Robert Lewy, Oscar Lopez, William Lowry, Frank Martens, Andrew Marinello, Michael McCray, Gregory Middleton, Geoffrey Nicholson, Peggy Panero, Bill Robin, Dean Seaton, Keith R. Stewart, Brett Thompsett, Eric Wardlaw

[Philanthropy]

Academic programs get boost

Claude Fiddler Endowment helps CSUB geology students study in the field

If you're going to study geology, the 100 miles surrounding Bakersfield is one of the premier areas on earth to do so, experts say.

"You see pretty much everything from ancient volcanoes, water and oil reservoirs, rivers, and fault lines," said CSUB geology professor Dirk Baron.

This notion rang true for longtime geologist and petroleum engineer Claude Fiddler whose 32 years with Chevron included many in Kern County.

"He loved going out into the field more than anything else," said daughter Linda Fiddler.

She recalls countless times when her father would load brother David and her up in the car and set out from their Taft home to drive around the oil fields, Claude stopping to point out different rock formations and pumping units all the way.

His legacy and love for fieldwork will be carried out thanks to a generous gift Linda and David recently gave to CSUB's geology department in the form of the Claude Fiddler Endowment.

"A lot of the things he did, he didn't do in his name," said David Fiddler. "We thought it would be nice to have something in my father's memory in the community."

Keeping true to Claude's passion, the \$100,000 endowment will be used solely to fund field research, a component of CSUB's geology department that is a highly-important part of the curricula.

"For us, field experience and field work are essential," said Baron. "But, we don't have a real good mechanism to fund them."

CSUB geology professor Jan Gillespie agrees and acknowledges that the department's field study fund has taken a big hit in recent years.

Gillespie said that one thing that had been done in the past was to bring geology students from Bakersfield College together with geology majors at CSUB and have them go out in the field and learn together.

"So many of the geology majors do their first two years at BC and then move over here. For a while, that was a nice way to link the two communities," she said. "This gift may be a way for us to do that again." The endowment will also help the geology department send students to visit local oil companies to get an idea of what professional geologists do on a daily basis, in addition to going on location through the vast Kern County landscape to study its storied past, and support students who are doing field work for their senior and graduate theses.

Many CSUB geology grads go on to work in the oil industry and executives often look to CSUB for their new pool of young talent.

"Chevron comes recruiting once a year in the department and one of the things they say is they like our students because they are well prepared, but also that they are happy here and tend to stay here," said Baron. "They bring in people from other parts of the country and they leave after a year or two."

"We really should be educating our own to work in an industry that is so dominant here," said Linda Fiddler. "We hope this endowment will help achieve this."

Former CSUB geology students conduct field research at Rainbow Canyon, south of Cuyama.



Donations

As you can see from the newsletter, there are many exciting things going on in the department and their education serves our students and alumni well. All this despite ever-shrinking state funding for the CSUs. We are doing our part and work hard to bring in significant grant funding. Many in the community have also stepped up. Please follow their inspiring example, dig deep, and consider a donation to - as Rob Negrini likes to say - "a gem of a small department" that provides great services to the community.

Please make your check payable to **CSUB Foundation** and indicate that it is for the **Geology Department Trust Account TR036.** Indicate the specific cause you want your donation to go to below on this form.

Return to the address on the back of this page, to the attention of Dirk Baron.

Name:

Affiliation (if applicable):

Address:

City, State, Zip Code:

Email:

Please indicate the amount you want to donate:

\$100 \$250 \$500 \$1,000 \$2,500 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)

Field Activities (will be added to the new Claude Fiddler Field Endowment)

Undergraduate Student Research

Unrestricted to support current needs identified by department faculty





Jim Ostdick, Laura Martin, Geoff Thyne, Jan Gillespie, Kayo Stolarski, Christine Luther, Chuck Magee, Donna Magee (from left) enjoying the view from the top of Kelso Dunes on a field trip in the early 1990s.



California State University, Bakersfield Department of Geological Sciences 62 SCI 9001 Stockdale Highway Bakersfield, CA 93311

Address Service Requested

Geological Sciences Department Newsletter inside