



DEPARTMENT NEWS

After a year in which we scrambled to cover our classes and other responsibilities with only four regular faculty, we were very happy to welcome **Graham Andrews** and **Chris Krugh** to the department in the fall. Graham and Chris are new tenure-track faculty and are already teaching classes, working with students, and infusing new ideas and energy into the department. Other recent additions are **Shaun Tobiason** as our new administrative support and **Andrea Medina** as the coordinator for our new NSF CREST center. **Linda Davis** continues as a full-time lecturer.

Our new **Center for Research Excellence in Science and Technology (CREST)**, funded by a major grant from the The National Science Foundation, is now fully operational. The large classroom next to the Geology Library was renovated and is now the CREST Center's main lab space. We also remodeled one of the rooms on the first floor of Science II as a climate-controlled well-core storage and sampling facility. The first cohort of students has already received very substantial scholarships from the grant. More on CREST in the box later in the newsletter.



Numbers of students in both the undergraduate and graduate programs continue at record highs. The photo above shows a recent Mineralogy class

at the Rio Tinto mine in Boron. The field trip was hosted by alumnus **Andy Sherman** who is now the Mine Superintendent in Boron.

Since the last newsletter, 13 students received degrees from us. We are happy and proud to report that ALL of them are either employed in their field or attending graduate school. Those pursuing graduate studies are all fully supported by teaching and/or research assistantships.



2012/2013 Geo Club president Stephanie Unruh Caffee addresses students and faculty at the Club's Fall 2012 Back-to-School reception.

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The CSUB National Science Foundation Center for Research Excellence in Science and Technology (CSUB CREST) has completed the first of five years of funding. The principal goals of the center are to:

- 1. Provide the resources to elevate the CSU Bakersfield Geological and Statistical Sciences group to a level of national and international competitiveness with respect to research capabilities and accomplishments.* The associated studies are designed to tackle problems that are pure research but have applications relevant to businesses and society as a whole in the region and beyond. The four projects associated with the CSUB CREST are a. forecasting Sierran River runoff into the San Joaquin Valley based on geologic records of Tulare Lake levels, b. statistical analyses of dynamic behavior of Sierran snow and ice pack as a response to historical climate changes, c. characterization of three petroleum fields as potential carbon sequestration and storage reservoirs, d. geochemical laboratory studies of carbon dioxide injection into San Joaquin Valley sediment samples.
- 2. Provide significant financial assistance and training for students in CSUB's service region toward an educational experience in the Geosciences competitive with the best schools in the country.* Ideally this will lead to advanced study including Ph.D.'s at cooperating universities like USC, UC Davis, UC Merced, UC Santa Barbara, University of Arizona, UN Reno, UNLV, UT Austin, Colorado School of Mines, etc.

As planned, the first year or so consisted primarily of infrastructure buildup. Accordingly, CSUB CREST successfully accomplished all the stated 1st yr goals including:

Remodeling/Equipment Purchase

- The construction of a laboratory for the sampling and cold storage of sediment core and samples.
- The construction of a student research laboratory containing computer workstations loaded with Petrel™, Petra™, Geographix™, Kingdom Suite™, "R" plus an array of sediment analysis equipment (laser particle size-analyzer, carbon coulometer, HCONS elemental analyzer, CO2 controlled atmosphere glovebox).



Recruitment of 1st cohort of students for AY2011/2012.

Two graduate students were fully supported (tuition plus \$25 k/yr stipend plus travel expenses) for the first year. For the second year, a cohort of four undergraduates and five graduate students with minimum GPAs of 3.5 are receiving full support. An additional 15 students are receiving partial stipends and travel expenses to field areas, society meetings, and/or training (e.g., Petrel™ classes in Houston).

Now that the Center is up and running, faculty and students will be busy conducting research on the four subprojects, presenting their results at national and annual meetings, and publishing peer-reviewed articles. CSUB CREST graduates will go on to careers in the petroleum and water resource industries and on to Ph.D. programs. Already, two of our CREST scholars will join Occidental Petroleum and



Chevron, U.S.A. next summer as professional geologists after successful summer internships last year and two students supported by CREST funds have moved on to graduate school at other universities.

AfricaArray

AfricaArray is an innovative program based at PennState to promote, strengthen, and maintain a workforce of highly trained African geoscientists and researchers for Africa. It is a 20-year initiative that is now in its 8th year. We have been part of the program since 2009. It provides substantial scholarships for our students, as well as the opportunity to participate in field courses both in Pennsylvania and South Africa.

Rebecca Rodriguez, Jon Goodell, Kelsey Padilla, Martin Jimenez, Cristina Rivas, Esteban Macias, Phillip Herrera, Monica Sanchez, and James Wilson all received \$5,000 per year scholarships from this program, several for multiple years. Martin and Esteban also got to participate this summer in PennState's **Summer Field Course** with 5 weeks in Pennsylvania and three weeks doing geophysical field work in the Bushveld Igneous Complex in South Africa. Martin, Esteban, Monica, and Kelsey also participated in the 2012 AfricaArray Forum in Houston. In all, support from AfricaArray for CSUB geology students will amount to about \$75,000 for 2012/2013 alone.

Participation in AfricaArray has also created exciting new partnerships for us. We are now working with the **GeoFORCE** outreach program based at the University of Texas at Austin to create a GeoFORCE site for California based in Bakersfield. This will create a "pipeline" for students from as early as middle school into geology programs at CSUB and elsewhere. More info on GeoFORCE here: <http://www.jsg.utexas.edu/geoforce/>



*Martin and Esteban at the 2012 Summer Field Course in South Africa
(standing, 3rd and 5th from right)*



AfricaArray

A public-private partnership supporting training & research in earth, atmospheric, & space sciences in Africa

FACULTY AND STAFF NEWS

Graham Andrews I am new to CSU Bakersfield this year so I have a lot to learn about life in Bakersfield and our local geology – I expect that I will meet many of you over the next few years. I join CSUB after several research and teaching stints in British Columbia, Pennsylvania, and Santa Barbara. I received both my undergraduate and PhD degrees from the University of Leicester in England. I'm interested in Cordilleran tectonics and volcanology, and I use a variety of petrological and structural geology techniques, including field mapping and geochronology, to conduct my research. I am very excited to have the opportunity to work with colleagues and local geologists on 'applied structural geology' projects in the San Joaquin basin, picking up on applied geology issues that I enjoyed working on in Canada. As I get my research program up and running, I expect to begin projects in the southern Sierra Nevada mountains above Bakersfield and in the Aegean, in addition to continuing my existing research in the British Columbia Coast Mountains, northern Mexico, and southern Idaho. In the meantime, I am busy writing grants to pay for all this! I am fortunate to be teaching Tectonics of California in the Fall 2012 quarter so I am greatly increasing my knowledge while engaging with a great cadre of seniors and grad students.



A happy Graham airborne over the Coastal Mountains of British Columbia.

Dirk Baron Another year went by way too fast. I enjoyed teaching more again after many years with too much of my time going towards administrative tasks. Together with former colleague Patrick Mickler, now at the University of Texas at Austin, I am getting our CREST project on the geochemical characterization of southern San Joaquin Valley formations proposed for carbon sequestration and enhanced oil recovery started. On a trip to Texas this fall, I toured the facilities and labs at UT Austin and the Bureau of Economic Geology. We will have several undergraduate and graduate students collecting data in Austin. Here at CSUB, we are setting up a new glove box for conducting experiments that simulate what happens if CO₂ sequestered in deep formations escapes and interacts with shallow groundwater aquifers.

I also continue to be active in several outreach, scholarship, and recruiting projects. We are now supporting Geology honors classes at six area high schools with about 350 students. This work is funded by a National Science Foundation grant and Chevron. Two major proposals submitted this year are for the NSF Math and Science Partnership program and the US Department of Education I³ program. The I³ proposal is for expanding the GeoFORCE (<http://www.jsg.utexas.edu/geoforce/>) outreach and recruiting program to California.



With students (Martin Jimenez and Esteban Macias at left, Monica Sanchez and Kelsey Padilla at right) at the 2012 AfricaArray Forum in Houston at the Exxon Mobil Upstream Technical Training Center.

Linda Davis My first year and one quarter at CSUB have been really amazing. While searching for a tenure track position in petrology/mineralogy, I have been a Visiting Assistant Professor at 6 universities and a lecturer at 2; never have I taught at a place with such diversity in the student body! And, rarely have my fellow faculty been so dedicated to doing everything that they can to accommodate students so that they can graduate in a timely fashion. In short, this is a good department in my opinion.

I was able to finish up research with students from Grand Valley State University during my first quarter here, but haven't had time with my teaching load to work with undergraduates or graduates here. I am in the process of writing papers to "complete" prior research, and hopefully our December break in teaching will promote progress there. California is a wonderful place for igneous petrologists!

I ended a 3-year term as the Association for Women Geoscientists Foundation (AWGF) Treasurer this October. I am now a Director on the Board. This was an amazing volunteer position, but as I now know, being Treasurer of any organization, is a great deal of work and I am happy that is completed. I can now be a creative Director! AWGF as a 501 c(3) organization obtains donations and grant proposals: we fund many small and large programs to support and encourage girls and women in the geosciences. We also are in the business of training leaders.

I led two field trips for classes and went on the Friends of the Pleistocene field trip to Lake Tahoe this fall. All were very enjoyable and geologically eye-opening. The Petrology field trip took us to the Mojave and the Silver Queen mine, to Vasquez Rocks State Park, to the Tehachapi marbles and finally to the Tehachapi Loop for a look at really complicated granitoids with aligned mafic schlieren or restite....or magma mixing.

This fall, the Geol 201 class just exploded in size. I know that field trips are what most alums remember, and I know that field trips early on are what grabs the majors and makes them want to continue in the field, so I was determined to have an outdoor experience with the crew. The usual

Desert Studies site was too small for the class so I began hunting for another research field station. I luckily found San Diego State University's Santa Margarita Ecological Reserve near Temecula. So, with two TAs and 4 graduate student volunteers, I took 60 students for a 3-day 2-night camping trip.



Linda's Geology 201 field trip - 60 students!

We began at the Palmdale roadcut to view the San Andreas fault. This is right at the Big Bend of the San Andreas, where compression is occurring; that outcrop is spectacular with amazing folds! Then we headed to Vasquez Rocks where the grad students taught the undergraduates about strike and dip and students climbed all over those flatirons. Students had to plot where they were on aerial photos and take 5 strike and dip measurements.

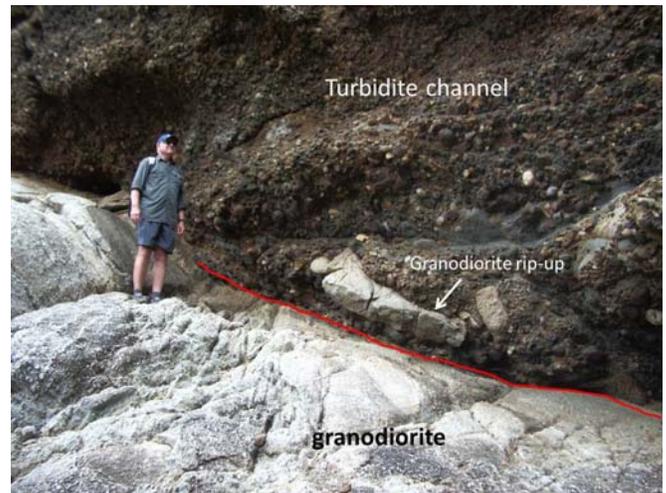
Then, off we went across the desert to get over to Temecula. We got to the Reserve after dark, of course, but all the students were troopers. The age of the students ranged from maybe 19 to 62 years old: what a sight it was watching them put up their tents in the dark with the high beams of the vans shining on the turf! Most of the students had never camped before. In truth, we camped on the reserve, which is a working orchard, and they had a house for shelter. But, it was still very much an adventure for many of the students.

The next day, the students had a lesson in orienteering and then we went to Temecula Gorge where they created a geologic map with faults and three major rock types. Lunchtime in the Santa Margarita River made the heat bearable, I think. At this level, the maps were works of art in more ways than one!

Our last day of the field trip took us up and over to the coast at San Onofre State Beach. Luckily, I missed the trail to the nudist beach, and luckily the students were still gung ho enough to do several exercises on the beach. They certainly discovered offshore sand bars, too. We had more than one foul-up with respect to wrong turns, missing vans, and misunderstood directions, but we came home before 10 pm, with no injuries, and very tired but engaged students, so I think it was a raging success.

Jan Gillespie During the 2011-12 academic year, I was on sabbatical for fall and spring quarter. In winter, I returned to teach the GIS for Natural Sciences class which was full at 35 students! Former student Jason Robbins (currently a geotech at Chevron in charge of their GIS program) was a huge help! I'm not sure I could have handled it all without him! In summer, I moved my research back to Lawrence Berkeley National Lab to work on waste carbon storage capacity in mature San Joaquin Valley oilfields. We finally completed the production/injection database for each field back to 1915! As a result, we began to make rapid progress on reservoir pressure response to fluid injection/removal. Pressure data has been particularly hard to access (due to confidentiality issues) so we are using idle well fluid level data as a proxy. I presented the research we've completed to date at the WESTCARB meeting which was held right here at CSUB!!!! http://westcarb.org/annualmtg_bakersfield_10_20_12.html. Graduate student Jon Goodell is currently working on characterizing the Stevens sand at North Coles Levee as a potential carbon storage reservoir. Undergraduate students Phillip Herrera, Monica Sanchez-Ybarra, Michael Thompson and Josh Atkins are building a well-by-well production database for the North Coles Levee, Northeast McKittrick and Greeley-Rio Bravo fields.

During my time in the Bay Area, I had a chance to go hiking with alumnus Jim Ostdick who is teaching high school in San Juan Bautista. At Point Lobos, we struggled through the sea lions and poison oak to examine the margin of a submarine channel sand.



There has been a lot of interest/concern in fracking lately...including right here in the San Joaquin Valley. A lot of people are trying to crack (sorry for the pun...I couldn't resist) the code for producing oil from fractured Monterey Shale. While in Berkeley, I was interviewed by the Sacramento NPR affiliate, Capitol Radio, about the potential concerns with fracking in California. Dr. Geoff Thyne (formerly a professor at CSUB that some of you may remember) was also interviewed for the piece. You can find it at <http://www.caprado.org/articles/2012/09/27/california-the-next-fracking-frontier>.

I am also involved in the high school dual-credit geology program with Dr. Dirk Baron. The program has expanded from South High to five other high schools over the past few years. The high school students take a year of geology in their senior year and, upon receiving an A or B



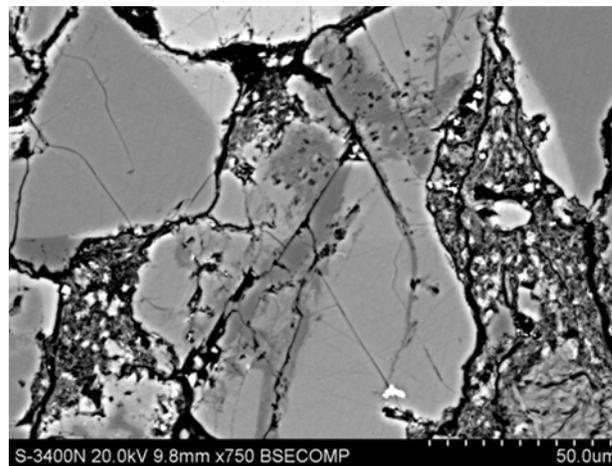
Jan with South High School students from Pam Knight's dual-credit geology class at Fossil Falls

grade, they can obtain credit for Physical Geology at CSUB. This credit can be transferred to the university of their choice. Many thanks to Chevron and the National Science Foundation for supporting this endeavor!



South High School Geology students at Fossil Falls

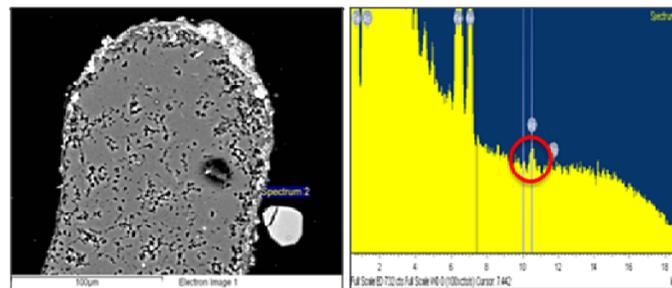
Department Chair Bob Horton Well, here we are in my final year as Department Chair. Who would have guessed that I would spend almost half of my academic career in administration (10 years as Chair, 2½ years in the Grants office)? This latest 3-year stint has been difficult due to California’s budget issues, but the Geological Sciences Department has survived in relatively good shape due to sky-rocketing enrollments and the benefits provided by the NSF CREST grant. This year we have over 100 declared undergraduate geology majors and we now have to run multiple lab sections in Strat-Sed, Mineralogy, and Petrology! It’s hard to believe that in the past we sometimes had as few as a half-dozen or so students in those courses. We also have two new tenure-track faculty this year, Chris Krugh and Graham Andrews. And new graduate students seem to be showing up every day. Currently I am supervising students looking at the petrology of the Rio Bravo, Vedder, and Famoso sands on the east side of the SJB, and another student will begin study of the Temblor at McKittrick oil field next quarter.



SEM backscattered electron image of plagioclase that has been altered to albite along fractures.

The SEM that we got with a Department of Defense grant about six years ago has become a work-horse instrument for these studies, allowing us to observe and analyze things that I could never have imagined when I first started this line of research at CSUB in the mid-nineteen-eighties.

Last year Dirk Baron and one of his students approached me to see if we might use the SEM to determine the nature of arsenic in soils from the Nellis Dunes National Recreation Area in Nevada, and while I was confident it would be associated with Fe-oxide coatings on mineral grains, I was certain that these would be too thin to detect with our instrument. Well guess what? Not only did we image Fe-oxide coatings, but we also found that they contain significant arsenic concentrations (unfortunately our instrument’s analytical resolution is in the range of 5-10 µm and these coatings are only 1-2 µm thick, so we could not perform quantitative analyses – oh well).



SEM-BSE image showing spectrum 2 containing As in clay coating surrounding quartz grain. Sample AG4-4a.

Partial EDS spectrum from location indicated in BSE image showing distinct As peak above background level circled in red.

Dirk recently presented the arsenic work at GSA in Charlotte and I will be presenting the sandstone work at AAPG in Pittsburg this spring. So, despite all the problems that the state budget has been causing around here, it is still a great time to be involved in CSUB geology!

Chris Krugh Hello everyone! I am excited to be one of the two new faculty members to join the Department this year and I look forward to meeting many of you in and around Bakersfield. I received my PhD in 2008 from the Swiss Federal Institute of Technology (ETH Zurich) and before that studied at Oregon State University (MS) and Penn State (BS). Following my PhD, I was a Post-doc at the University of Wyoming and then a Visiting Assistant Professor at Colorado College. My areas of expertise are in structural geology, geochronology, and tectonic geomorphology and I am currently developing my teaching and research programs to take advantage of the fantastic geology in and around this part of the world. I am excited to begin working with CSUB undergraduate and graduate students on projects to investigate the growth of ancient and active structures in the San Joaquin basin, the Sierra Nevada, the Basin and Range, and elsewhere.



Chris and Madie taking a break in the foothills of the CO Front Range. The area in the background was involved in the Waldo Canyon wildfire this past summer.

I had a great group of students in Structural Geology this fall and am looking forward to teaching This Dangerous Earth (honors freshmen class) as well as the Senior Field Seminar and Research Methods classes this spring. My dog

Madie and I have been exploring the numerous parks and trails around Bakersfield and plan to get into the mountains for some winter fun very soon.



Structural Geology class checking their field maps from a ridge-line overlooking the Salt Springs Hills field area

Rob Negrini Rob and his wife Jana didn't travel as much as usual this past year, mostly because of Rob's responsibilities as Director of the new CREST center. However, they managed to tour a few of SE US's historical cities including Savannah, GA and up the coast to Beaufort and Charleston, SC after visiting Rob's parents who were snowbirding in Venice, Fla. Rob had quite the education. From his New Englander perspective, nothing happened of importance in the Revolutionary War south of Philadelphia. Wrong, wrong, wrong. The South played quite a big part in this and, of course, the Civil War (or as the Dixie folk call it... the War of Northern Aggression). That's not all. Geologic hazards ran supreme in this area. In fact, Charleston was the epicenter of every kind of havoc. It weathered the literal storms of several major hurricanes and the figurative storms of a magnitude 7.3 earthquake in 1882 and two major wars, all of which razed at least part of the city. Three of the more interesting manifestations of this collective carnage are the wreck of the Hunley (a civil war submarine), the ruins of the Middleton Plantation, and the earthquake shear support



Shear support bolts anticipating earthquakes in Charleston, SC

bolts poking out of most of the buildings in the historic district.

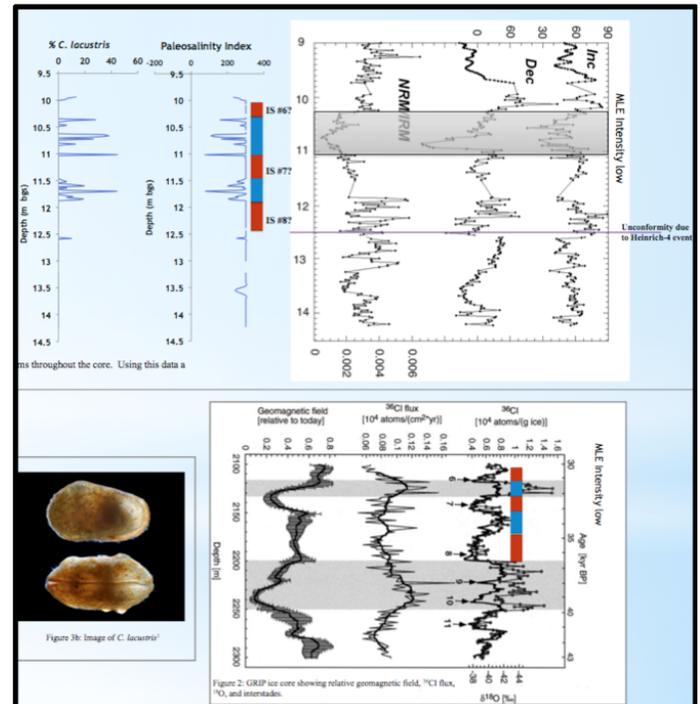
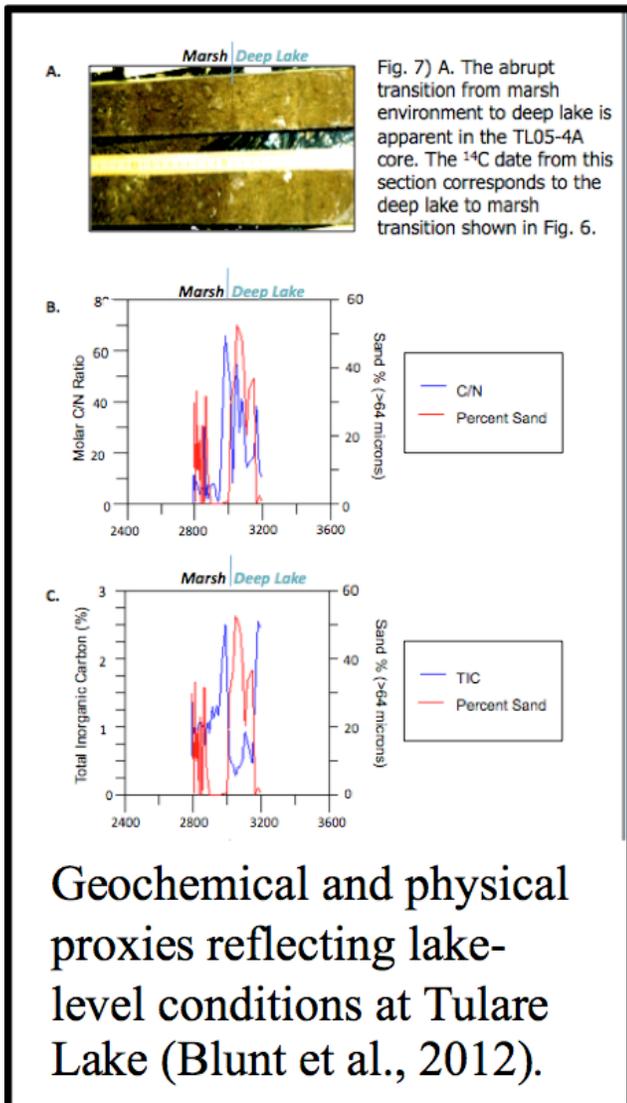
Another highlight was a hike/rappel down the classic *Subway* hike of Zion National Park led by Jan Giliepie's friend Charlie "Canyon". This included the occasional swim through cold water and a loonngng slog out because the trail had been washed out a few months before in a flash flood. It was worth every step, though. Fantastic slick rock canyon scenery with an accent of dinosaur tracks near the end of the hike out.



Rob and Jana after a mandatory swim in the *Subway*.

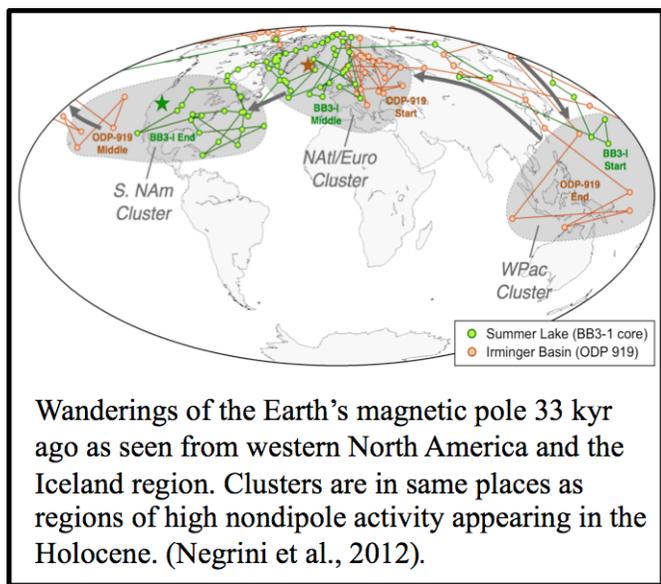
Research-wise, Rob and his students (mostly the latter) made a lot of progress last year culminating in nine presentations including two in October at the National GSA meeting in Charlotte by Ashleigh Blunt and Greg Thompson. Ashleigh and several coauthors presented results showing that carbon/nitrogen ratios, total inorganic carbon percent, and grain-size can be used on Tulare Lake cores as proxies for lake-levels.

Greg and his group showed that *Cytherissa Lacustris*, an ostracode with freshwater and arctic affinities, lived in Summer Lake, Oregon at the same time there were especially low North Atlantic region temperatures recorded by the GISP2 ice cores. This result supports computer models suggesting that large temperature swings in the North Atlantic region are able to drive precipitation and temperatures in western North America. Guest researchers Dr. Manuel Palacios-Fest and Dr. Peter Wigand, also helped advise this research.



Temperature changes in western North America driven by North Atlantic Dansgaard-Oeschger oscillations in the late Pleistocene. Age constrained by intensity low of the Mono Lake excursion (Thompson et al., 2012).

Building on Dan McCuan's (M.S., 2011) thesis work Rob presented at the annual meeting of the AGU in San Francisco an interpretation of the behavior of the Earth's magnetic field during aborted reversals. This was a multi-author effort spearheaded by CSUB that included investigators from UC Berkeley, Davis, and Santa Cruz, USC, CSU Fullerton, the USGS, and Barnard College.



Rob's students are well-supported financially. In addition to the NSF CREST grant featured elsewhere in this newsletter, five of his students (Logan Prosser, Kelsey Padilla, Emmanuel Garcia, Cristina Rivas, and James Wilson) were supported by a US Dept. Agriculture-sponsored internship program hosted by the California State University Water Resources Institute. Each student received \$4,500 of hourly wages plus \$500 for research supplies. In addition, Cristina and Emmanuel travelled to Texas for a related USDA conference on career opportunities and Logan and Kelsey presented their research at the statewide annual CSU WRI conference held in Sacramento. Both



events were in June. We recently heard that four of the award recipients successfully applied for renewal for a second year's internship.

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, and the Samuel Roberts Noble Foundation.

Individuals Cynthia Huggins (B.S. '84), Dan Schwartz, Marty Smithey (BS '83), Sandra and Dan Steward (BS '92, MS '97).

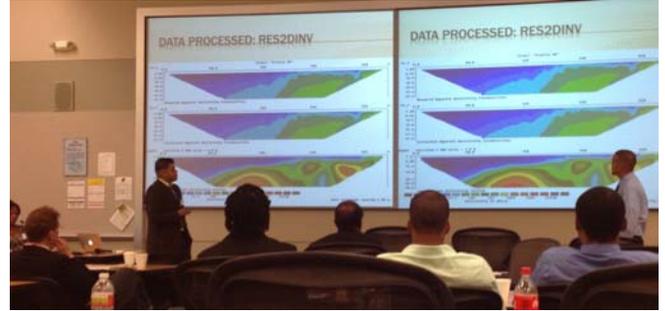
Alumnus **Dan Steward** and his wife Sandra made a \$5,000 donation that will be matched by the charitable foundation of Dan's employer, Noble Energy. They intend to make this an annual donation that will establish a "**Steward Field Camp Scholarship**". We will award four \$2,500 scholarships to the top students in Structure and Senior Seminar to help with field camp expenses. This will supplement the existing C.E. Strange Scholarships that award much smaller amounts to all students going to field camp. Not to mention, the scholarships will be a real incentive for students to try to do really well in Structure and the Senior Field Seminar. Thanks Dan and Sandra!

A donation of \$2,500 plus a \$2,500 match from AERA Energy was made to the department by **Dan Schwartz** and alumna **Cynthia Huggins**. Dan recently presented to our CSUB NSF CREST students the enhanced opportunities for research he has had at AERA and Shell because a Ph.D. is his terminal degree. Cynthia helps to run the AAPG Imperial Barrel Award competition, in which a team from CSUB participated last year for the first time.

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



Students Robert Kelty, Travis Aragon, and Kelsey Padilla demonstrating our coring rig to high school students at the 2012 Engineers Day



Esteban Macias presenting geophysical data collected in South Africa at the AfricaArray Forum in Houston

STUDENT NEWS

The spring 2012 **Outstanding Graduate in Geology** was **Greg Thompson**.

Recent BS/BA Geology Graduates Travis Aragon, Alexandra Nicosia, James Lopez, Kelly Harrington, Louis Hinzo, Joanna Pounds, Devan Meraz, Tristan Mullen, Kathleen Randall, Rebecca Rodriguez, Bibi Tan, Greg Thompson, John Wilson.

With the cost of tuition ever increasing, we are doing our best to support our students with scholarships so they can focus on their studies. Scholarships are funded through grants and generous donations.

C.E. Strange Scholarships were awarded to most of the students taking field camp in summer 2012. The list is too long to include here.

Africa Array Scholarships Recipients are listed in the Box with more information on this program. Total support from AfricaArray totals about \$75,000 this year.



Martin Jimenez at the Bushveld Complex during the AfricaArray Field Course in South Africa

CREST Scholarships These range from \$3,000 “pre-CREST” awards to \$20,000 scholarships for undergraduates and \$30,000 scholarships for graduate students, and total over \$250,000 this year. Recipients were Ashleigh Blunt, Jon Goodell, Lindsey Medina, Greg Thompson, John Wilson, Martin Jimenez, Victoria Miller, Cristina Rivas, Nehemias Ulloa, Emmanuel Garcia, Phillip Herrera, James Lopez, Esteban Macias, Kelsey Padilla, Azael Salinas, and Amber Tedrow.



Spring 2012 Commencement photo showing some of our graduates.

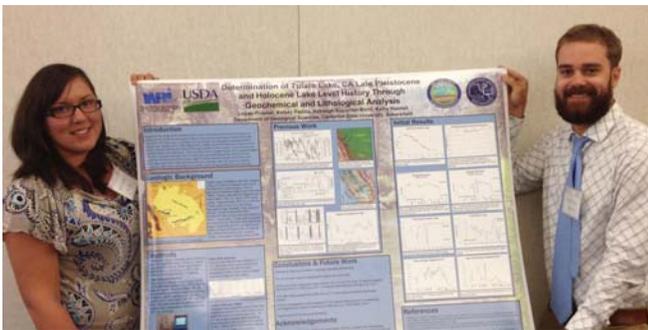
SJGS Scholarships Angela Espinoza, Jennifer Head, Kelsey Padilla, and Camille Ramirez received Field Camp Scholarships. Jon Goodell received the Graduate Research Scholarship.

USDA/WRPI Scholarships Logan Prosser, Kelsey Padilla, Emmanuel Garcia, Cristina Rivas, and James Wilson received \$4,500 scholarships

from an USDA grant through the CSU Water Resources and Policy Initiative.

National Science Foundation Scholarships for new freshmen and recent transfers from community colleges: Kelsey Walsh, Victor Medrano

Several endowments unfortunately did not produce enough income last year to make meaningful awards. We are hoping to resume these awards this year.



Kelsey and Logan with their poster at the 2012 WRPI conference in Fresno



Students at Red Hill, Utah, during the summer 2012 Southern Utah University field camp.

Geology Student Club

Join the CSUB Geology Club site on Facebook to keep up on club activities, and job and scholarship opportunities. Mark your calendars for the **2013 Geo Club BBQ**. In this year, it will be on February 22, 2013 in the **Buena Vista Museum of Natural History**.



AAPG Imperial Barrel Award

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

Jan Gillespie and professionals from the community mentored the group. Although, by all accounts they did well, they did not qualify for the final competition at the Annual AAPG Meeting in Long Beach. Currently, we have another group forming so watch out on more news on this endeavor.



Senior Seminar students contemplating Rainbow Basin.

ALUMNI NEWS

Join the CSUB Geology Alumni Group on Facebook to connect with old friends and keep up with department news and events.



This year, we rearranged the alumni list by when degrees were awarded. This will make it easier to keep up with your classmates. It is also interesting to see that in the 40-year history of the department, we have awarded an average of six degrees a year. This has increased significantly in recent years. Since 2010, there are already 34 new CSUB Geology alumni! Many more will be coming through the ranks in future years.

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 future newsletters to Dirk Baron (dbaron@csub.edu).** If you are ever in the area, please stop by to see our new facilities and meet current students and faculty. We are also always looking for alumni to give seminar presentations about their work and careers. These are very inspirational for students. We would love to hear from more of our alumni. Note that all degrees before 1985 were in Earth Science, afterwards in Geology.

2010 – present

Michael Adamson, BS 2011, is working at Strata-graphic in Bakersfield.

Travis Aragon, BS 2012, is a mudlogging geologist at DHI Services.

Pedro Arredondo, BS 2011, works for Oxy in Bakersfield and is also working on his MS degree at CSUB.

Paul Bowles, BS 2010, works for DHI Well Services and is also working on his MS degree at CSUB.

Simarjiit “Simmie” Chehal, BS 2011, is working on her graduate degree at CSU Northridge with full support through a teaching assistantship. She writes: *“I’m living the life of a graduate student! Grad school is an amazing experience*

and I’m so glad I made the choice to continue my education. It is extremely stressful but I’m loving every moment of it. I absolutely love CSU, Northridge and my advisor is AMAZING!”

Ryan Glauser, BS 2010, is working for Berry Petroleum in Bakersfield and also working on his MS degree at CSUB.

Jon Godell, BS 2011, is working on his MS Geology degree at CSUB, fully supported by a CREST scholarship.

Gina Gonzales, BS 2011, is applying for the teacher license program at Purdue.

Kelly Harrington, BS 2011, is a Technician at the Kern County Environmental Health Department and also working on his MS degree at CSUB.

Gary Henley, MS 2011, is a geologist with Oxy in Bakersfield.

Stanley Hensley, BS 2011, is working on his graduate degree at Texas Tech University.

Louis Hinzo, BS 2012, is a teacher.

Shawn Larkin, BS 2011, is working on his graduate degree at the University of Houston and is supported by a teaching assistantship there.

Dustin Leavitt, BS 2011, works for Schlumberger and is working on his M.S. degree at CSUB.

James Lopez, BS 2012, is a Geotech at Chevron and also working on his MS degree at CSUB.

Scott Dorman, BS 2011

Harold Holt, BS 2011, is a mudlogger at DHI Services.

Dan McCuan, BS 2009, MS 2011, works for Oxy and has been teaching several classes in the department as an adjunct lecturer.



Dan with his Sed/Strat class at Red Rock

Devan Meraz, BS 2012, is an Operations Geologist for Oxy in Bakersfield.

Jason Marc Mohamed, BS 2011, is an Environmental Specialist with the Petroleum Company of Trinidad and Tobago. He writes: *“you won’t believe the cool stuff I get to do ... if I’m not out on a boat, I’m in the rainforest or mangrove swamp , I love it !!!”*

Tristan Mullen, BS 2012, is working at Stratigraphic in Bakersfield.

J.J. Navarette Bolanos, BS 2010

Alexandra Nicosia, BS 2012, is working on her graduate degree at the University of Alabama. She receives full support through a teaching assistantship worth up to \$40,000. She writes: *“I am working with Dr. Alberto Perez-Huerta at the University of Alabama. My thesis project is on bivalves from the Pacific coast of South America (Peru, Chile, Ecuador) that survived the great El Nino of the early 1980s. I will be studying how they recorded this event chemically and structurally in their shells. I was really impressed with the school, they have state-of-the art facilities, and Alberto seems like he will be a good person to work with. I’m not sure what I will do in the future, but I have a little while to figure it out. I am very excited for what is in store, but I will miss CSUB and our department.”*

Joanna Pounds, BS 2012, is an LPD tech for Schlumberger in Bakersfield and also working on her MS degree at CSUB.

Kathleen Randall, BS 2012 is working on her MS Geology degree at CSUB and is an intern with Chevron.

Robin Richardson, BS 2011, is a geotech at ERG Resources in Bakersfield and also working on her MS degree at CSUB.

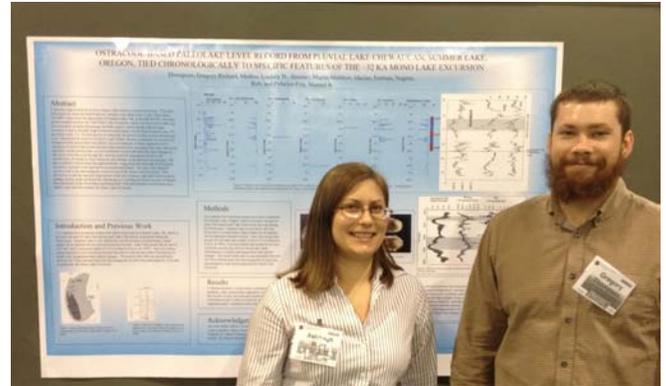
Rebecca Rodriguez, BS 2012, is a Geotech at E&B Oil Company in Bakersfield.

Sarah Schindler, MS 2010, is a steamflood geologist for Berry Petroleum in Bakersfield.

Heidi Snow, BS 2010.

Tze “Bibi” Tan, BS 2012, works at Oxy in Bakersfield and is also working on her MS degree at CSUB.

Greg Thompson, BS 2012, is working on his graduate degree at CSUB, fully supported by a CREST scholarship. Below are Greg and Ashley Blunt at the 2012 GSA Meeting in Charlotte where both presented posters about their research.



Scott Thompson, BS 2010, is an Operations Geologist with Oxy in Bakersfield.

Gunnar Tornstrom, BS 2010, is working for Rio Tinto Mining in Boron as an environmental specialist.

John Wilson, BS 2012, is working on his graduate degree at CSUB supported by CREST and a teaching assistantship.

2000 – 2009

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

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.

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. Ariel also was the lead on Chevron’s annual recruiting event in the department this year.



Ariel Auffant presents a \$10,000 check from Chevron to Department Chair Bob Horton at the 2012 Chevron recruiting session in the department.

Charlie Bauer, MS 2002, works for the Kern County Environmental Health Department in the Hazardous Materials/Waste Division.

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

Jessie Becerra, BS 2009

Karen Bennett, BS 2003

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.

Jlynn Bowen, BS 2009, is a Geotech at Aera Energy in Bakersfield.

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

Michelle Casterline, BA 2001, is a Hydrogeologist II with the Kern County Water Agency.

Sophia Luz Cobos, MS 2006, is now working for BP in Britain.

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.”

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

Brian Cunningham, BS 2006, works for Bonanza Creek Energy Operating Co. in their Denver office.

Anne Draucker, BS 2003, MS 2007, is back in Bakersfield after completing Chevron’s 5-year Horizons training program. She wrote the following when we asked alumni for comments on their experience at CSUB for a new recruiting brochure: *“I can't say enough positive things about CSUB's Geology Department. My education there has served me incredibly well. The faculty and staff take advantage of the amazing California geology, diverse local industry, abundant research opportunities, and their own expertise to provide a great academic experience for students. I do regularly recommend the department, and I think that my education stacks up perfectly well against many of my colleagues' Ivy League or "name" university educations. In some ways, I have an advantage in the industry because I have the local experience to pair with the general principles. And I've never heard of another university that got its undergrads as involved in real research as CSUB.”* Thanks Anne, and welcome back to Bakersfield!

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

Kathy Edwards, BS 2002

Ben Fleming, BS 2006

Elizabeth Golob, MS 2005

Greg Gordon, MS 2009, is finishing up his doctorate at the Colorado School of Mines and works as a research assistant in the Chevron Center of Research Excellence there. He stopped by the department and gave a presentation about his experience as a doctoral

student to the CREST students.



Rob and Jan with Greg and his poster at the 2011 GSA Meeting in Minneapolis.

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.

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

Karla Hoobler, BA 2004

Devon Hovis, BS 2004

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

Jennifer Kalkis, BA 2009, now lives in Minnesota.

Harvinder “Nikki” Kaur, BS 2000

Kenneth David Kay, BS 2009, works for Oxy in Bakersfield.

Jason Leiran, BS 2008

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

Rosemary Marble, BS 2008

Dan McCuan, BS 2009, MS 2011, works for Oxy and has been teaching several classes in the department as an adjunct lecturer.

Cari Meyer, MS 2005, is teaching geology at Bakersfield College.

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

Joanna Oseguera, BS 2006, completed her MS Geology at UC Riverside and is working for Chevron in Bakersfield.

Katie O’Sullivan, BS 2005, is finishing up her doctorate at the University of Notre Dame. This summer, the Bakersfield Californian had a short

story saying that Katie is very close to getting her degree. We keep our fingers crossed for her and are looking forward to listing her as Dr. Katie O’Sullivan in next year’s newsletter.



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 for the Sacramento Metropolitan Air Quality Management District.

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

Robert Privett, BS 2008, is a well-site geologist at Oxy.

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

Raquel Ramirez, BS 2008

Jason Robbins, BS 2008, is a Technical Assistant Geologist with Chevron’s Kern River Asset Development Team in Bakersfield. He is and also working on his MS degree at CSUB.

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..

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

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.

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.

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

Marco Voinich, BS 2009, is an Engineering Technician at MHA Petroleum Consultants in Bakersfield.

Jonathan Walker, BA 2005, teaches science at North High School in Bakersfield where he also teaches one of our dual-credit Geology classes.

Jeffrey Wussow, BS 2002

Mladen “Sam” Zic, MS 2001

1990 – 1999

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

Fidelis Agbor, BS 1992, is a Major in the U.S. Army and has served in Iraq, Kuwait, Ethiopia, Haiti and Kenya.

Harry Angell, BS 1997, is in Oman with his family and working for Oxy there.

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

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.

David Bates, BS 1994

Michael Blackwell, BS 1993

Scott Briscoe, BS 1993

Bryan Bruce, BS 1993

Christopher Carrisalez, BS 1994, teaches science at Arvin High School where he teaches one of our new dual-credit Geology classes.

Richard Charboneau, BA 1998, is a teacher in Lake Isabella.

Michael Coburn, BS 1987, MS 1996, is a teacher at Highland High School in Bakersfield where he teaches Earth Science and AP Environmental Science.

Kevin Danley, BS 1994, is an administrator at West High School in Bakersfield.

Thanh Dao, BS 1996, is an IT Specialist with Oxy.

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

Joy Gillick, BS 1997



Heather Creassall, Joy Gillick, Michelle Casterline, and Patrick Howard with magnetometer, southwest Indian Wells Valley, early 1990's

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

Jatinderpal Grewal, BS 1994

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

Dawn Hanson, MS 1998, works for Aera in Ventura.

Mitchell Herd, BS 1995, works for Oxy International in Houston, TX..

Adam Herrera, BS 1997, is teaching honors physics and earth science at Stockdale High School in Bakersfield.

Bill Hluza, BS 1998, works for Aera Energy in Bakersfield.



Bill Hluza and Rob Negrini on right, Suki Smaglik on left, Suki's cat "Trouble" on outcrop above. Red Rock State Park, Last Chance Canyon.

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

Patrick Howard, BS 1997

Joe Johnson, BS 1992, is working for Oxy in Houston.

Christopher Jones, BS 1995, is a Senior Geotechnical/Geological Engineer for the California Department of Water Resources in Sacramento.

Christopher Jamison, BS 1994

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

Lori Kloesel, BS 1997

Tara Kuhn, BS 1997

Timothy Long, BS 1996, works for one of the water districts in Kern County.

William Lowry, BS 1996

Christine Luther, BS 1994, is the Bakersfield Brach Manager for Padre Associates.

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

Laura Martin, BS 1994, is a Geotech at Oxy in Bakersfield.

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

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.

Gregory Middleton, BS 1990

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

Charles Moore, BS 1991, worked for Core Lab for over 30 years.

Jonathan Mullings, BS 1993

Erik Oehlschlager, BS 1997, is a geologist for Engineering/Remediation Resources Group (ERRG) in the Bay Area.

James Ostdick, BS 1993, MS 1997 teaches at Sacred Heart Parish School in Hollister, near the Central California Coast.



Jim exploring the geology of Santa Cruz Island

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

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

Frances Razo, BS 1997

Bill Robin, MS 1991

Justin Schimnowski, BS 1994

Robert Swartz, BS 1992, MS 1995, is a principal project manager of the Regional Water Authority in Sacramento.

Andrew Sherman, BS 1997, is the now the Mine Superintendent at the Rio Tinto Minerals mine in Boron. We enjoyed talking to him at the Geology Club's fall BBQ. He also hosted the field trip for our mineralogy class shown on the cover of this newsletter.

Ronald Smith, BS 1994

Timothy Smith, BS 1994

Daniel Steward, BS 1992, MS 1997, is the Business Unit Exploration Manager for Noble Energy's West Africa Business Unit. Dan and his wife Sandra made a generous \$5,000 donation to the department to establish new Steward Field Camp Scholarships that will support students completing summer field camp. They plan to make this an annual donation. Their donation will be matched by Noble Energy's charitable foundation. We are planning to award \$2,500 each to four students every year.

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

Michael Thompson, BS 1997

Myron Tiede, BS 1991, writes: "I am still actively searching for more oil & gas as a Petroleum Exploration Geologist and have been a consultant for several petroleum and resource companies in the Bakersfield area-'working' the Santa Maria, Ventura, San Joaquin, and Sacramento basins."

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

Eric Wardlaw, BS 1991

1980 – 1989

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

Anthony Amarante, BS 1981

James Armstrong, BS 1988

Suzanne Baehr, BS 1989, is a geologist and GIS analyst for Cenergy International.

Gregory Berg, BS 1989

Cheryl Blume, BS 1986, works for Schlumberger in Bakersfield.

Dean Boehler, BS 1980

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

Michael Coburn, BS 1987, MS 1996, is a teacher at Highland High School in Bakersfield where he teaches Earth Science and AP Environmental Science.

Callie Cullum, BS 1989

Flora Darling, BS 1983

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

Alan Febus, BS 1989

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

Rene Glass, BS 1989

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

Patrick Hauptman, BS 1983

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

Cynthia Huggins, BS 1983, is a senior geologist at Aera Energy in Bakersfield. Cynthia and Dan Schwartz made a donation of \$2,500 to the department that will be matched by their employer AERA Energy. Cynthia also helps to run the AAPG Imperial Barrel Award competition in which a team from CSUB participated last year for the first time.

Carl Hulick, BS 1984, is the President of CMH Environmental Group, Inc. based in Fullerton, CA.

Robert Jelaca, BS 1988

Ric Kirn, BS 1988

Dwight Lee, BS 1986, is a geoscientist with Horizontal Solutions, International.

Tim Lester, BS 1985, owns a geotechnical company in the San Diego area.

Robert Lewy, BS 1982, teaches high school earth and physical science at East High School in Bakersfield.

Andrew Marinello, BS 1988

Inge Riis McDonald, BS 1984, works for Maersk Oil and Gas and is based in Copenhagen, Denmark.

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

Kenneth Renz, BS 1980

William Rosica, BS 1981

Bernard Sentianin, BS 1984

Marty Smithey, BS 1983, is back in the USA after 15 years living and working internationally and works for Apache Energy in Houston. He writes: *"I made the transfer back to the US and so I lucked out and experienced 2 summers this year, go figure! Southern hemisphere and now northern hemisphere. Houston summers are by far the worse!! I am actually looking forward to winter. I can actually say that I like Houston now. Huge city, but very cosmopolitan and kind of fun. Thanks Marty for another very generous donation to the department this year and welcome home!*

Keith R. Stewart, BS 1984

Don Terndrup, BS 1981

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.

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

1970 – 1979

Michael Alexander, BS 1975

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

Christy Beiber, BS 1978

Dave Beiber, BS 1974

Floyd Bowen, BS 1978

Michael Bowery, BS 1975

Meniford Canterberry, BS 1973

Clifford Carter, BS 1973

Robert Chow, BS 1973

Richard Durbin, BS 1972

Jacinto Gonzalez, BS 1976

Florn Core, BS 1974, retired at the end of 2009 after a long career as the Water Resources Manager for the City of Bakersfield. He gave a very interesting guest lecture for our Hydrogeology class this year.

Ronald Cribbs, BS 1976

Rick Darke, BS 1977, is a teacher at Bakersfield College

Robert Diosi, BS 1976

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

William Galloway, BS 1972

Lance Garcia, BS 1977

John Ferguson, BS 1974

Lee Gholz, BS 1973

Michael Griebing, BS 1979, is a science teacher at Frontier High School in Bakersfield where he teaches one of our dual-credit Geology classes.

Mark Hamilton, BS 1979

William Hawes, BS 1978

Gene Hershberger, BS 1979

Daniel Holland, BS 1978, is retired after a long career in agriculture and the food industry.

Hal Hynds, BS 1979

Richard Jewell, BS 1973

Richard Jones, BS 1975

Frank Martens, BS 1975. Fellow 1970's alumnus Geoff Nicholson wrote: *"After a long career with Unocal and Saudi Aramco, Frank is now working for Apache Oil & Gas in Midland, TX."* Thanks Geoff!

Robert Lisenbee, BS 1976

Lea Lehman, BS 1973

Harmon Larue, BS 1974
Melvin Krause, BS 1975
Ellett Jackson, BS 1975
Katherine Longcrier, BS 1977
Oscar Lopez, BS 1973
Edward Eugene Miller, BS 1978, is the President of Gas TransBoliviano S.A. in Bolivia.
Mary Newman, BS 1977
Geoffrey Nicholson, BS 1974, is Senior Geologist at Naftex Operating Co. in Bakersfield.
James Ogilvie , BS 1975
John Otto, BS 1975, retired as the Assistant Manager of the Tehachapi-Cummings Water District.
Peggy Panero, BS 1978.
Nedra Peace, BS 1975
Keith Roberts, BS 1977
Michael Sarad, BS 1977
Dean Seaton, BS 1979, worked at Epoch Well Logging. We were sad to hear that he passed away in 1999.

Dewey Shanholtzer, BS 1977, is the President and the Geologist of Dewey Data, Inc. a Geophysical survey and video company in Stockton, CA.
Frank Slinkard, BS 1977, is a Licensed Land Surveyor and has owned 2 local Civil Engineering Companies (Sequoia Engineering and FAS Engineering & Surveying).
David Stanton, BS 1977
George Stewart, BS 1978, received an MS from USC and now works for Plains E&P here in Bakersfield
Steve Story, BS 1977
Patricia Stubblefield, BS 1973
Kent Thompson, BS 1978
Joel Waldrum, BS 1973
Michael Walters, BS 1975, is a teacher at Rio Bravo Elementary School in Bakersfield.
Robert Wells, BS 1978
G Young, BS 1974



Students posing with poster at the SJGS's CSUB Night this spring. Kathleen Randall, Ashley Blunt, Logan Prosser, Stephanie Caffee Unruh, Bekowei Okoro

“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, David Bates, Sophia Luz Cobos, Richard Durbin, Dennis Green, Khalil Hassan, Patrick Hauptman, William Hawes, Melvin Krause, Oscar Lopez, William Lowry, Frank Martens, Andrew Marinello, Gregory Middleton, Geoffrey Nicholson, Peggy Panero, Bill Robin, Keith R. Stewart, Brett Thompsett, Eric Wardlaw



Red Hill Utah during Summer 2012 Field Camp. Rebecca Rodriguez, Alyssa Kaes, Justing Lawrence, Brandon Jackson, Logan Prosser, Camille Ramirez, Jennifer Head, Greg Thmpson, Zach Martindale and Abe Chavez



Spring 2012 Commencement

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. This makes external support ever more important if we want to give our current students the exceptional educational experience that we hope our alumni experienced during their time here. We are doing our part and are bringing in major external funding by winning highly competitive federal grants. Industry partners, folks from the community, and many alumni 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 and our profession.

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:

\$500 \$1,000 \$2,500 \$5,000 \$10,000
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)**
- Field Activities (will be added to the new Claude Fiddler Field Endowment)**
- Undergraduate Student Research**
- Unrestricted to support current needs identified by department faculty**



Greg Hammett, Chuck Magee, Marc McCullough, Tim Long, Mike Blackwell, Rob. Structural Geology Field Trip, 1993.



West Guard Pass looking westward toward Sierra Crest. From left Marc McCullough, John Mullins (back), Bryan Bruce (front), Chuck Magee, Dan Steward, David Umali (front), Chris Jamison, Tim Long, Mike Blackwell, Laura Paris, Greg Hammett, Jim Ostdick.

Thank You!



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Address Service Requested

Geological Sciences Department Newsletter inside
