

CSU Bakersfield Department of Geology Newsletter

<http://www.csub.edu/Geology>

Fall 2008

A MESSAGE FROM THE DEPARTMENT CHAIR: DIRK BARON



Greetings and welcome to our second newsletter! It has been wonderful to hear from so many of our alumni and friends of the department over the last year in response to our first newsletter. It is great to learn that the education and the degrees from the CSUB Geology department have served our students so well in many fascinating career pathways. We want to connect more with our alumni. We want to know more about their experiences at CSUB, their careers, and how their CSUB education serves them in their careers. This information can help us improve our programs, and will support our recruiting efforts by providing inspiration to students who are considering a geology major. In this newsletter, we have included a brief feedback questionnaire. Please complete it and return, and don't forget to keep in touch!

DEPARTMENT NEWS

In the last year we have seen a welcome upward trend in the number of our majors. This includes new freshmen, honors students who are hooked by **Rob Negrini's** and **Jan Gillespie's** Geology 100 Honors classes, and folks with degrees in completely different fields who want to pursue a second BS degree or join our MS program. This fall term, we have 28 students in Geology 201 and a record 30 students in **Patrick Mickler's** Sed/Strat class. Undoubtedly this is a result of the many news reports and surveys about the excellent job opportunities for geoscientists and - we like to think - our outreach efforts to local K-12 schools and community colleges. Please read the *K-12 Outreach Highlights* section for an overview of our efforts in this arena.

Several exciting new research projects have been initiated last year, many of them using our new Scanning Electron Microscopy lab. We are very

excited to report that we just received Federal funding for adding a wave-length dispersive X-ray detector and a micro XRF system. These new instruments will allow analysis of most elements in the parts-per-million range and make the CSUB Geology lab one of the very few labs with these capabilities anywhere.

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DEPARTMENT NEWS CONTINUED

The Geology Department's strong presence at the **2008 SPE Western Regional and Pacific Section AAPG Joint Meeting** this spring with no less than nine research presentations from faculty and students reflects the quality and quantity of our research programs and the department's major contributions to the petroleum field.

Staffing has been a challenge in the last years and this year is no different. Due to poor state funding for the CSU system, we still have not been able to replace **Steve Mitchell** who retired two years ago. In addition, **Bob Horton** continues for another year as the university's interim Vice President for Grants and Sponsored Programs. So we have been short two faculty for two years now. We hope that we can do a search for Steve's replacement next year and that Bob will return to the department in the fall of 2009. We are fortunate that despite the demands of his current assignment, Bob continues to supervise several graduate students and stays involved in department affairs, helping out with his long-time experience.

Staci Loewy is now already in her third year as an Assistant Professor in the department and we are very lucky that she and her husband **Patrick Mickler** are doing a wonderful job covering essential classes, mentoring our students in many ways, and are supervising many different senior and graduate thesis projects.

We are also fortunate to have **Mei-Ling Hamilton** as a lecturer who has been doing a great job with our general education and liberal studies classes for future elementary school teachers. She also taught Environmental Geology last year.

We were sad to hear that founding faculty member and emeritus professor **Dr. Ed Laskowski** passed away in January 2008. Last year we heard from several of the early alumni and many commented on how much they appreciated our founding faculty and the fact that "*they were very good professors but more than that; they shared a passion for excellence*".

FACULTY AND STAFF NEWS

Dirk Baron I am now in my second year as department chair. The first year has been quite interesting and challenging due to our shortage of regular faculty and some unforeseen surprises; the second is shaping up as equally challenging.

It is great to see the number of our majors increase significantly and the record enrollment in our classes. I had 25 students in my Hydrogeology class in the spring. Both Chevron and Aera Energy now conduct annual information and interview events in the department, an indication of the high demand for our students and graduates and the high-quality training they receive in our programs.

We continue to upgrade our research laboratories and have just received major new funding from the US Department of Education through a grant to the our school. This funding will allow the addition of a more sensitive detector for our scanning electron microscope, the construction of an improved research space for Staci, and the acquisition of several new analytical instruments including a particle size analyzer and a Carbon, Nitrogen, and Sulfur analyzer.

Department chair duties have definitely reduced my time for research and publications. However, I was pleased that an article on the age of the Kern River ash, a prominent marker layer in the Kern River Formation was finally published in the journal *Quaternary International* this year. I also started a new project on the mineralogy of sediments from Soda Lake in the Carrizo Plain with Erin Ammesmaki, one of CSUB's Student Research Scholars.



Rob and Dirk exploring the remains of a mid-Cretaceous caldera in the Ritter Range of the Sierra Nevada this summer.

Jan Gillespie Last year I eased myself out of my previous job as department chair by serving as technical co-chair for the Pacific Section AAPG-SPE convention held in Bakersfield. The department was really visible at the convention with numerous student talks and posters. Last year was also a busy year getting back into teaching after serving three years as department chair. I had to learn to teach a few general education and liberal studies classes that I had managed to side-step with my reduced teaching load as chair. It was interesting in that I had to actually sit down and learn things about topics I had long been interested in but never took the time to learn about in much detail--meteorology, the carbon cycle, etc. I also had to learn how to use the Instructional TV facilities to teach courses held simultaneously in Bakerfield and Antelope Valley--not so fun. Now I am getting back into the intricacies of computer mapping as I resurrect the *GIS for Natural Sciences* class and continue subsurface mapping interests.

I still find time to get into the field. I have been developing a field guide for a remote area of the Grand Staircase-Escalante National Monument in Utah where I lead field trips and am learning the fine art of canyoneering by rappelling into Zion slot canyons.



Jan leading a field trip in Southern Utah this summer and pointing out a view across at the East Kaibab Monocline.

Bob Horton I have signed on for another year as Interim Assistant Vice President of Grants, Research, and Sponsored Programs. This is a very interesting, although sometimes stressful, job as I deal with faculty and staff from all over campus. Last spring I worked closely with the Dean of Natural Sciences and Mathematics in the development of a proposal to increase the transfer rate from Bakersfield College to CSUB in STEM (science) fields. We recently received word from the U.S. Department of Education that we have been awarded \$4.9 million for this project, which will include significant upgrades to our science infrastructure. The Geology program should see the construction of a Rock Preparation Lab at the Well Sample Repository, a new Paleoclimate Research lab, and, most important from my point of view, additional analytical equipment for our SEM lab that will make it among the most advanced anywhere.

I still try to keep up with my research agenda as time permits, most recently re-focusing on the effects of steam on reservoir rocks and vice versa, and last winter I taught the graduate Sedimentary Petrology course. My term as Interim AVP lasts through next summer, after which it is unclear whether I will continue in administration or return to the Geology Department.



Detrital biotite disrupted by growth of authigenic ankerite along cleavage planes.

Staci Loewy This has been another fantastic year, filled with enjoyable classes, great research and my most exciting news, the birth of our daughter Sierra Jade Mickler. She was born at the end of March, 2008. I enjoyed a very healthy and active pregnancy, continuing to teach and research until mid-March.

In December 2007, I presented new geochemical analyses from an anomalous fragment of Peruvian continental crust, at the national meeting of the American Geophysical Union (AGU). Previous work (Loewy et al. 2003) indicated that this fragment may have been left behind, in Peru, when an unknown continent collided into South America, one billion years ago. The new research suggests that the fragment contains remnants of an ancient continental volcanic arc, part of a two billion year old subduction zone. This information will help identify the fragment's "parent continent", indicating which continent collided with South America one billion years ago.

In January of 2008, I spent a week in St Johns, Newfoundland, Canada using the mass spectrometer facilities at Memorial University. I analyzed Pb isotopic compositions of rocks from Argentina, prepared by former CSUB student Esteban Bowles-Martinez, to evaluate whether a portion of the South American continent (The Precordillera Terrane) was originally derived from North America about 450 million years ago. I acquired lots of new and exciting data and got to experience the impressive Newfoundland winter.

A Frantz Magnetic Barrier Separator, a large electro-magnet that enables separation of materials based on very small differences in magnetic susceptibility, is scheduled to arrive in the lab in December 2008. This tool will enable us to separate minerals or volcanic glass from crushed rock for geochronology, tephrochronology and mineralogical or geochemical analysis. The Frantz will help with on-going efforts to analyze volcanic ash layers in the San Joaquin Valley sediments and enable planned research on U/Pb geochronology using

zircon and provenance studies using trace minerals.

CSUB undergrad, Dan McCuan, is working with me to develop the necessary analytical techniques to use CSUB Geology's laser and ICP mass spectrometer to complete the U/Pb geochronologic analyses.

Patrick Mickler The 2008 academic year was another busy one for me. I worked to develop three classes that I have previously not taught - these are Historical Geology, Geomorphology and Sedimentology. Historical Geology included a trip to Ibex Hills in Death Valley to study Precambrian through Paleozoic rocks. Once again the study of the spectacular Californian geology was a major part in my classes. I also completed another successful senior field seminar class despite uncooperative weather. The 2008 class will probably go on record as the hottest in history with our final mapping exercise getting cut short because of $>110^{\circ}$ F temperatures in Red Rock Canyon.

I will remember the past year as one of the happiest in my life because of the birth of my daughter, Sierra Mickler. At 6 months of age her geologic career has already begun with visits to the Adirondack Mountains in New York, and Grand Canyon, Bryce Canyon and Zion National Parks.



Sarah Reynolds, Jason-Marc Mohamed, Jennifer Kalkis, and Erin Ammesmaki, taking a break from the study of Paleozoic rocks in the Salt Spring Hills



Jason Robbins, Raquel Ramirez and J.J. Navarrete mapping in Rainbow Canyon.

Rob Negrini Rob spent the year teaching some familiar courses for a change, including *Introduction to Exploration Geophysics* and *California Geology*. The feedback from the California Geology course has been so favorable that he decided to propose and develop a new general education course in natural disasters called *The Dangerous Earth*. This course will study well-known catastrophes in recent earth history including the 3500 BP Santorini eruption/tsunami, the 2005 Sumatran earthquake/tsunami, Hurricane Katrina, and the impending disaster in the Sacramento Delta area. Because this course will be taken primarily by freshmen, it should help to bring in even more majors than we have added in the past year. The geophysics course benefited greatly from a supplementary lecture on reflection seismology given at Chevron by Bill Kempner. Also, Tom Haslebacher and geology graduate student Michelle Casterline, both of the Kern County Water Agency, helped greatly to set up our field trip to the lower Kern River floodplain where we probed for groundwater using surface electrical resistivity and refraction seismic surveys.

Ongoing research projects on cores from the Carrizo Plain and the Mojave Desert keep Rob and his students busy. M.S. student Randy Stephenson, and undergraduates Jason Leiran, Eric Glauser, Raquel Ramirez, and Erin Ammesmaki are recovering a record of lake-level fluctuations from Soda Lake in the Carrizo Plain using relative concentrations of evaporite

minerals found in XRD scans and magnetic susceptibility logs. M.S. student Adam Herrera and high school student Nick Duerr associated the susceptibility values with magnetite crystals found with our SEM. They did this work with the help of Professor Loewy. Tracie Miller is analyzing the same sediments for microcharcoal concentrations in an attempt to reconstruct wildfire history as her M.S. thesis research with the able assistance of Peter Wigand, one of our adjunct professors.

Recent B.S. graduates, Robert Privett and J.J. Navarrete did a great job describing cm-scale lithology of the cores from the Coyote Lake subbasin of the Mojave River system. Robert and J.J. now work for Vintage Petroleum and Core Lab, respectively. These cores were taken with our Giddings coring rig with the help of Marco Voinich, Jason Leiran, and Juan Santiago. The final report for this project was recently submitted to the US Geological Survey, who provided the funding. New majors Vid Herrera and Alex Nicosia helped Rob sample the core and write the final report. Another recent graduate, Rosemary Marble (now working for Oxy Elk Hills) finished a pilot study on the magnetostratigraphy of the Kern River alluvial fan.

Rob is also the primary advisor on two other M.S. theses that have made good progress this year. One is being done by Sarah Schindler on the seismic interpretation of the Santa Barbara Basin and environs of the California Borderlands. Sarah's work is primarily the responsibility of Chris Sorlien and Geoff Nicholson, research professors from UC Santa Barbara. Sarah is in the process of writing her thesis. Sean Taylor finished his thesis last winter on the "Geologic and Petrophysical Characterization of the Basal Etchegoin Formation: Elk Hills Field, San Joaquin Valley, California." The lower Etchegoin is a very heterogeneous unit, so its petrophysical characterization was an especially tough nut to crack. Hats off to Occidental Petroleum of Elk Hills for providing the data, the use of software and, of course, expertise provided by its professional geologists and engineers including

Kurt Neher and Kurt Johnson, the other two advisors on the thesis.

Finally, Rob took some time off to go backpacking with Dirk Baron in the Ritter Range NE of Mammoth this August. No mosquitos, swimmable water, few people, no memos from administrators... who could ask for a better trip.



The pictures show Mt.

Banner reflecting off of Thousand Island Lake and a shot of the 100 Ma caldera

collapse breccia of which Mts. Banner, Ritter, and the Minarets are made. Pretty cool! This is one of the few volcanoes fed by the world reknowned Sierra Batholith that have not yet eroded.

All that's left of most of the other ones are lithic clasts in SJV sandstones. If you don't believe me, ask Bob Horton.



Tom Osborn Our instrument technician's expertise, creativity, and talent for improvisation keep our research instruments running. Over the years, his fine work has saved us uncounted dollars in repairs, service calls, and service/maintenance contracts that we would have needed without him. His support has been instrumental for many senior research and MS thesis projects. This spring, Tom's many contributions were acknowledged with the CSUB Staff Forum's **Outstanding Staff Award**.

Alicia Parks This is my 23rd year in the Geology Departmental Office. I have seen many faces come and go over the years and have witnessed many changes in the way we do things as well. I remember some of our early faculty at CSUB, Ed Laskowski, John Coash (former

Dean) and Steven Mitchell. As I look over the list of alumni from CSUB, I remember many of you. One of the bigger implementations we experienced was when we moved to Banner for student information, then went on to PeopleSoft for student information and campus budget information. One thing we can all count on is change. I wish each of you success in the coming year.

Elizabeth Powers The past year has gone by so quickly and so many great changes have come about within the department. The increase in enrollment of geology majors has really picked up the pace of laboratories and field trips. As you can imagine I am keeping pretty busy. There are many new tasks ahead of me this year. I am assisting the Geology Club by serving on the Spring BBQ, Haunted Halloween, Guest Lecturer and Donation committees. I am proud to participate in the California Science Teachers Association 2008 Conference by helping local teachers prepare educational materials for primary and secondary earth science education programs. I am also pleased to announce that the Dean of Natural Science and Mathematics has chosen me to represent the campus technical staff on the WASC Accreditation Committee.

Aside from my departmental duties I am still a student and full time mom. I have a few more classes and a thesis to complete before I can receive my Master's Degree in Geology which I hope to finish up next Fall. I also stay busy trying to keep up with my family which includes my husband and three young daughters.

Long-time Instructional Technician **Gary Ivey** is retiring this year. Gary has cheerfully assisted the Geology department since before even Bob Horton was around. Gary was especially supportive of student research projects and field trip activities. We'll all miss him.

DONATIONS

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

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

Individuals: Gene Hershberger, Jim Weddle, Rob Swartz

STUDENT NEWS

Herman W. Weddle Memorial Scholarships

Over the last couple of years we awarded the first scholarships from an endowment established in 2005 by a generous gift in memory of **Herman W. Weddle** by his son **James Weddle**. Herman Weddle was a geologist with Standard Oil Company of California. He believed in the importance of looking at actual rocks and the scholarship is to support students studying wells samples. The first awards went to **Elizabeth Powers** for her work with samples from a well in the Buena Vista Lake basin and **Raquel Ramirez** and **Tracie Miller** for their work on a core from Soda Lake in the Carrizo Plain.

American Petroleum Institute Scholarships

These scholarships are supported by an endowment from the San Joaquin Valley Chapter of the API. 2007/2008 awards went to **Jason Robbins** and **Marco Voinich**.

San Joaquin Geological Society Scholarships

Jason Robbins, **Robert Privett**, and **Raquel Ramirez** received support for summer field camp. **James Vickery** received a scholarship to support his graduate work at the Colorado School of Mines.

C.E. Strange Scholarships

In 2007 and 2008, **Jlynn Bowen**, **Dan McCuan**, **Shawn Larkin**, **Devan Meraz**, **Jason Mohamed**, **Heidi Snow**, **Michael Adamson**, and **Diana Cosma** have been awarded **C.E. Strange Scholarships** to support them during

their studies. **Raquel Ramirez**, **Jason Robbins**, and **Robert Privett**, like almost all graduating geology majors over the last 35 years received C.E. Strange Scholarship support for attending summer field camp.



The Southern Utah University field camp is a popular student choice. Here is Jason examining dinosaur tracks.

Geology Student Club

The CSUB Geology Club is planning the 1st annual spring BBQ at a yet-to-be-determined date and location in May of 2009. Faculty, staff, students, alumni, and community will all invited to a night of food, fun, laughter, and networking. Check the club website www.csub.edu/geology/geo_club_2008.htm in the spring for more information and reservations or contact Geology Club President Dan McCuan at danmccuan@yahoo.com.

The Geology Club is also selling shirts for fundraising. See the Feedback section for the design and an order form.

Student Accomplishments

Sarah Schindler presented her work on the 3D fault geometry and offshore basin evolution in the Northern Continental Borderland at the **2007 Meeting of the American Geophysical Union in San Francisco**. **Jennifer Kalkis** won the 2008 CSUB Student Research Competition for a presentation about the geochemical analysis of archaeological chert samples from southern France. **James Vickery's** senior thesis on *Sources of arsenic in sediments from the Buena Vista Lake Bed, Well KWB-24K-01, California* and **Brian Taylor's** MS thesis were honored as Best Undergraduate and Best Graduate Papers in

the School of Natural Sciences and Mathematics. **Rosemary Marble** was the 07/08 Outstanding Graduating Senior and **Anne Draucker** was honored as the Outstanding Master-Level Graduate of the School of Natural Sciences and Mathematics.

The department was well presented at the **2008 Pacific Section AAPG-Western Region Society of Petroleum Engineers Annual Meeting** with no less than nine presentations from students and faculty.



Students Kay Coodey, Jlynn Bowen, and Elizabeth Powers talk shop at the 2008 SPE Western Regional and Pacific Section AAPG Joint Meeting

Our students also made a strong showing at the **May 2008 Monthly Meeting of the San Joaquin Geological Society** presenting no less than 13 posters and two talks, representing the quality and wide range of student research projects.

Recent BS/BA Geology Graduates include **James Vickery, Marco Voinich, Raquel Ramirez, Jason Leiran, and Rosemary Marble**

Recent MS Geology Theses

Lorelea Samano – Geohistory of the Maricopa sub-basin, Kern County, California (2008)

Sean Taylor - Geologic and Petrophysical Characterization of the Basal Etchegoin (2008)

We will make MS theses available online on the new alumni page of the department website that we are creating as this is written. If you want your thesis online, let us know and send us a completed copyright release form (will also available on the website).



Marco Voinich, Anne Draucker, Sarah Schindler, Raquel Ramirez, and Rosemary Marble, together with Rob and Dirk at the 2008 Commencement.

Congratulations to all graduates!

ALUMNI NEWS

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

John Acord, BS 1986, MS 1990, works for Oxy at the Elk Hills Oil Field. He writes: *"I am doing reservoir development using Petrel Geomodeling to plan new wells, calculate OOIP and current recovery factor, estimate remaining reserves, generate property grids for loading flow models with the purpose of investigating the viability of envisioned EOR projects, and planning EOR pilot projects. I also review down wells and current producers, in order to plan workover jobs to return wells to production or increase production. What I have learned is that everything we do is a "team sport". Better decisions are made in a team collaboration work environment. I recently reached the milestone of 20 years with Oxy."*

Fidelis Agbor, BS 1992, is a Major in the US Army and was deployed to the war in Iraq in 2003.

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

Michael Alexander, BS 1975

Anthony Amarante, BS 1981

Harry Angell, BS 1997, works for Vintage Production California in Bakersfield as the Ventura Coastal Geologist. He writes *"My wife and I are blessed with two little boys, Bridger, 5, and Harrison, 3. The oldest thanks me often for "not getting fired." I don't know how he came up with that. I will try to meet his expectations. We have been visiting the caves of California this last year; Mitchell is still the best one yet, but we have 3 more to go."*

Sara Ante (formerly Draucker), BS 2002, is a geologist with Chevron working in the Duri oil field on the Indonesian island of Sumatra.

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.



The Class of '79. From the left Mark Hamilton, Dayne Frary, Richard Armstrong, and Mike Griebing

Ariel Auffant, BS 1998, MS 2005, is now back in Bakersfield after a stint in Houston, Texas.

He continues to work as a geologist for Chevron.

The photo shows Ariel while visiting



Chevron's coal mining operations in Wyoming, just before the dynamite sessions started.

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

David Bates, BS 1994

Charles “Charlie” Bauer, MS 2002, works for the Kern County Department of Environmental Health.

Christy Beiber, BS 1978

Dave Beiber, BS 1974

Karen Bennett, BS 2003

Gregory Berg, BS 1989

Michael Blackwell, BS 1993

Cheryl Blume, BS 1986

Dean Boehler, BS 1980

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

Floyd Bowen, BS 1978. Dayne Frary writes: *“Went by his middle name, Keith ... I saw him last in 1982 when I worked for the Department of Energy at Elk Hills, and he was mudlogging.”*

Michael Bowery, BS 1975

Scott Briscoe, BS 1993

Bryan Bruce, BS 1993

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

Meniford Canterberry, BS 1973

Christopher Carrisalez, BS 1994

Clifford Carter, BS 1973

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

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

Richard Charboneau, BA 1998

Robert Chow, BS 1973

Michael Coburn, BS 1987, MS 1996

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

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

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

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

Joshua Courter, BS 2005, works as a geologist for the US Forest Service in Porterville.

Ronald Cribbs, BS 1976

Callie Cullum, BS 1989

Brian Cunningham, BS 2006, writes *“I have been working at Bonanza Creek Energy Operating CO., LLC for two years now as a Geologist in Bakersfield, CA. I am working our Midway Sunset field, Greeley field in Kern County & Sargent field in Santa Clara County.”*

Kevin Danley, BS 1994

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

Flora Darling, BS 1983

Rick Darke, BS 1977

Robert Diosi, BS 1976

Anne Draucker, BS 2003, MS 2007, is working as a geologist for Chevron in Bakersfield.

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. He writes: *“I’m proud to say that I’m the only geologist ever hired by Roger McIntosh. My degree reads Earth Sciences – Geology, indicating the concentration in geology offered by the department that was closest to an actual geology major prior to 1985. I was the second graduate to obtain a degree with the geology concentration.”* Dayne also sent us info about several other alumni from the early days. Thanks Dayne!

William Galloway, BS 1972

Lance Garcia, BS 1977

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

Lee Gholz, BS 1973

Joy Gillick, BS 1997

Rene Glass, BS 1989

Elizabeth Golob, MS 2005

Jacinto Gonzalez, BS 1976

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

Jatinderpal Grewal, BS 1994

Michael Griebing, BS 1979, is in his 27th year of teaching. He is currently the chair of the science department at Stockdale High School.

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

Karin Hagan (formerly Faber), BS 1997, MS 2002 – writes *“I’ve earned an MGIS (Master of GIS) in 2006 from Penn State, and I’m currently working as 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, we heard from Dayne that Mark has *“worked in very responsible environmental, State Water Resources Control Board, and USGS positions”*.

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

Dawn Hanson, MS 1998

Khalil Hassan, BA 2004, works for Halliburton in Bakersfield

Patrick Hauptman, BS 1983

William Hawes, BS 1978

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

Gene Hershberger, BS 1979

Adam Herrera, BS 1997, is an Earth Science teacher at North High School in Bakersfield and is also working on his graduate degree in geology at CSUB. The photo shows Patrick and Adam examining gravel along Breckenridge Road.



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

Daniel Holland, BS 1978. Dayne Frary writes about Dan: *“May have been the first graduate with an Earth Sciences-Geology concentration. I think he has been working in agriculture since 1981 or so, and runs his family’s longtime farm in Delano.”*

Karla Hoobler, BA 2004

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

Devon Hovis, BS 2004

Patrick Howard, BS 1997

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

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

Carl Hulick, BA 1984

Hal Hynds, BS 1979

Ellett Jackson, BS 1975

Christopher Jamison, BS 1994

Robert Jelaca, BS 1988

Richard Jewell, BS 1973

Joe Johnson, BS 1992, writes *“I transferred from Oxy Elk Hills with my family to Houston 4 years ago. I worked international exploration new ventures in South America, the Caribbean, West Africa and the Middle East. After completing a three month temporary assignment in Oman in February of this year, I transferred to Oxy Permian where I am doing exploration and exploitation in the Permian Basin (West Texas). My sons Adam 14 and Ian*

12 are in Jr. High and playing football (it's Texas what do you expect!). My wife Teresa is on permanent sabbatical."

Christopher Jones, BS 1995

Grant Jones, BS 1992, works for Swift Energy Exploration Services in Carpinteria, CA. He writes: *"Since graduating from CSUB, I earned an MBA with a I.T. concentration. I have worked for Oxy, Benton Oil and Gas, Venoco and Festool."*

Richard Jones, BS 1975

Harvinder "Nikki" Kaur, BS 2000

F Kirn, BS 1988

Lori Kloesel, BS 1997

Melvin Krause, BS 1975

Tara Kuhn, BS 1997

Harmon Larue, BS 1974

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

Lea Lehman, BS 1973

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

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

Robert Lisenbee, BS 1976

Timothy Long, BS 1996

Katherine Longcrier, BS 1977

Oscar Lopez, BS 1973

William Lowry, BS 1996

Christine Luther, BS 1994

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

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

Rosemary Marble, BS 2008, works for Oxy

Andrew Marinello, BS 1988

Frank Martens, BS 1975

Laura Martin, BS 1994

Kyle Mayborn, BS 1991, is an associate professor 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

Patrick McCullough, MS 1995

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

Cari Meyer, MS 2005, is a geologist at Soils Engineering, Inc., in Bakersfield.

Gregory Middleton, BS 1990

Edward Eugene Miller, BS 1978 - Edward is the President of Gas TransBoliviano S.A. (www.gtb.com.bo) in Bolivia. He writes *"I spent 20 years in the Upstream and participated in some of the largest oil discoveries in South America. I went to Cal State on a Track Scholarship. I went to work for Oxy picking bugs in their paleo lab when I was a Senior and they hired me full time after graduation (as a Jr. Geologist). I then spent two years as a field geologist in South America, then an additional two years doing well-site work and then one year with the Geophysical Department before they gave me the title "Geologist". I'm sure that kind of training does not exist today! I often joke about the fact that I have a Masters in Petroleum Geology from the University of Oxy. I am also a Director for the Kaa Iya Foundation that oversees the National Park of the same name."*

Edward also has several opportunities for internships with his company and in the park which we passed on to our students but so far, nobody has taken him up on these great opportunities.

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

Charles Moore, BS 1991

Jonathan Mullings, BS 1993

Ben Nelson, BA 2005

Mary Newman, BS 1977

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

Erik Oehlschlager, BS 1997

James Ogilvie, BS 1975

Joanna Oseguera, BS 2006, worked for Oxy at the Elk Hills Oil Field in Bakersfield after graduating and just started her graduate work at UC Riverside.

Katie O'Sullivan, BS 2005, is now a Ph.D. student at the University of Notre Dame. Her research on rocks from the moon in collaboration with NASA was featured in a nice article in the Bakersfield Californian this summer.



James Ostdick, BS 1993, MS 1997 – Jim teaches Earth Science at San Benito High School in Hollister, near the Central California Coast. He sent us pictures and tales from his continuing quest to complete the Pacific Crest Trail, this summer battling a record snowpack in Washington State.



John Otto, BS 1975

Peggy Panero, BS 1978. Dayne Frary writes about Peggy: *"I haven't seen her for some time, but I recall that we were both job hunting in the early 1990s during the recession. Life has had its moments of unemployment that few geologists in other than academia have escaped, but we generally recover in much better shape than we were in before our*

respective layoffs. She's married and has grown kids by now."

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

Nedra Peace, BS 1975

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

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

Paul Philley, BS 2004, is an Urban Planner for the City of Sacramento. The picture shows Paul and fellow alumni Carol Register, Jennifer Shives, Anne Draucker, Vanessa Perez, Kevin Coodey, and Kay Coodey at Paul's wedding this spring.



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

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

Frances Razo, BS 1997

Carol Register, BS 2007, works for Berry Petroleum.

Kenneth Renz, BS 1980

Keith Roberts, BS 1977

Bill Robin, MS 1991

William Rosica, BS 1981

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

Lorelea Samano, BS 2003, MS 2007 works for Chevron in Bakersfield.

Michael Sarad, BS 1977

Justin Schimnowski, BS 1994

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

Dean Seaton, BS 1979. Dayne Frary writes about Dean: *“He was a very good mudlogger with Epoch who passed away in 2000 or 2001. He was very knowledgeable and certainly has been missed in the local drilling industry.”*

Bernard Sentianin, BS 1984

Dewey Shanholtzer, BS 1977

Andrew Sherman, BS 1997

Jennifer Shives, BS 2005, is working on her graduate degree in Geology at CSUB.

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

David Stanton, BS 1977

Daniel Steward, BS 1992, MS 1997, is a geologist with Noble Energy in Houston, focusing on deep-water exploration in the gulf since 2002. He sent us some recollections from the 1990 CSUB Geology field camp, featured toward the end of this year's newsletter.

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 senior project manager for the Sacramento Groundwater Authority. In his previous position as the Senior Engineering Geologist for the California Department of Water

Resources, he was one of the lead authors of the 2003 update of DWR Bulletin 118, *California's Groundwater*.

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

Sean Taylor, MS 2008, is a Senior Petrophysicist with Occidental of Elk Hills.

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

Michael Toland, BS 1982

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

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

Joel Waldrum, BS 1973

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

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

Eric Wardlaw, BS 1991

Robert Wells, BS 1978

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

Jeffrey Wussow, BS 2002

G Young, BS 1974

Mladen “Sam” Zic, MS 2001

1990 CSUB Geology Field Camp



Dan Steward sent us this picture from the 1990 field camp with the following account: Dr. Negrini took us to an area behind the cement plant in the Tehachapi basin for the first week for geologic mapping of a relatively simple area. One highlight was seeing some petroglyphs in a cave Rob took us to.

Dr. Horton took us to the Poleta Folds for the 2nd week for *Geologic Mapping Extreme*. This was my personal favorite as I had never seen anything like it. Funny Story here: Horton was driving up to the White Mountain research station in the van to do some high-altitude running (we were slaving away in the field of course), when he hears a super loud "POP!" -he gets over the shock when he notices potato chips all over the inside of the van. The chips were hauled from Bakersfield (335' elev.) and he realized he was nearing something like 11,000' on White Mountain when the bag exploded. Bob adds: "This was the group that got to experience the rattlesnake in the outhouse at Poleta!"

Then Dr. Laskowski had us doing mapping near Pyramid Lake for 4 days or so.

Finally, Dr. Coash, geomorphologist emeritus, took us around Mammoth, Devil's Postpile, Convict Lake, et al., exiting the area through Tioga Pass and coming down through Yosemite from the east. We took this picture along the side the road just after going over the pass and heading towards Yosemite. We went on to see Bridal Veil Falls, El Capitan, and myriad other short stops to see alpine glaciation up-close.

In the picture, left to right: Seated in the front: **Barbara Houghton**, next to an unknown local woman. Standing: Unknown man, **Dr. Coash** with two grandsons, **Vic Mungary** (CSUB staff), **Dennis Green**, **Pat McCullough**, another unknown local guy (red sweater), **Chris Carrisalez**, **Daniel Steward**, **Fidelis Agbor**, **Kyle Mayborn**, and **Al Tanabe** (CSUB staff).

CSUB GEOLOGY K-12 OUTREACH HIGHLIGHTS

Many organizations, companies, and government agencies are concerned about the well-documented shortage of Earth scientists which persists despite the excellent job opportunities in this field. Two ways to address this problem are raising awareness of the Earth science among K-12 students and improving Earth science training of K-12 teachers.

Since 2004, the department has invited K-12 teachers and high school students for four-week summer programs in which they conduct authentic research with faculty and our students, as well as with visiting researchers from other institutions. The research involves the collection and analysis of sediment cores from dry lakes in the San Joaquin Valley including Tulare Lake, Buena Vista Lake, and Kern Lake, and Soda Lake in the Carrizo Plain west of Bakersfield. These cores preserve a record of the climate history of our region and the purpose of the research



is to unravel this history. This research lends itself to teacher and student involvement because the research tasks range from simple analyses like grain size to complicated work like micropaleontology and electron microscopy. So everybody can contribute at an appropriate level.



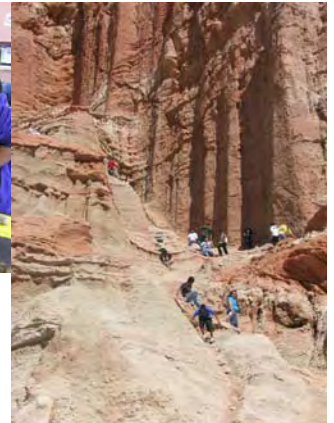
These programs were originally funded by a four-year grant from the **National Science Foundation** to Dirk and Rob. A generous donation from **Chevron** to CSUB has allowed us to continue the programs beyond the original grant period and expand them, with Patrick adding a project on speleothems. They now serve as the model for

research-participation programs offered by all the science departments at CSUB that have been offered in 2007 and 2008, also funded by the Chevron donation.

It is hard to quantify exactly the impact of these programs but there is plenty of anecdotal evidence that they are raising awareness of the importance of geology and the level of geoscience education in the schools. Participating teachers have developed several new classroom exercises and field trips.



6th Graders examining sediment cores and on a field trip to Red Rock Canyon



Participating teachers are currently preparing a presentation at the fall **2008 Meeting of the California Science Teachers Association** where they will disseminate the materials they developed to their colleagues from around the state.

Several of the high school students were so impressed by the experience that they are now geology majors in college, some in our department, some at other schools including UC Santa Barbara and the Colorado School of Mines. One of them recently wrote to us:

"I have some good news---I'm officially a geological sciences major! I'm really really really excited too. Professor Atwater (the head of the UCSB geology advisors) was incredibly impressed with the work I did with you at CSUB. I was talking to her about it and she said she was amazed at what I knew."

The programs have also produced some exciting new science including our ongoing work with a core from Soda Lake in the Carrizo Plain that contains a non-marine counterpart to the well known record of millennial-scale climate change from offshore Santa Barbara Basin. The programs have also provided research projects for numerous CSUB students and several MS theses that are in progress. More info:

www.csub.edu/geology/nsf_grant.htm



CSU Bakersfield
Geology students
in the field and in our laboratories.

The Sierra Nevada at sunrise from the White Mountain
Research Station, a popular stop on field trips.



Feedback

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

Name: _____

Affiliation (if applicable): _____

Address: _____

City, State, Zip Code: _____

Email: _____

I would be interested in

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

____XS ____S ____M ____L ____XL ____XXL Total: \$



Additional Comments:

Please return to

Dirk Baron

California State University, Bakersfield

Department of Geology

62 SCI

9001 Stockdale Highway

Bakersfield, CA 93311

Fax: 661-654-2040 Email: dbaron@csub.edu

**This survey will also be available for
online submission on the department
website at**

www.csub.edu/Geology/alumni.html

Donations

A Message from Rob Negrini: Is the high price of oil treating you well this year? Thinking about write-offs for this year's tax returns? Then consider donating to your former department. This is an especially critical year for us. The state funding we receive is barely enough to pay for faculty and staff salaries. In fact, this year we are actually not quite sure yet if it will be enough. What this means for our students is that there is precious little money, if any, left over for student research expenses, field trips, presentations of student research at professional conferences, and maintaining and upgrading our research instruments and computer labs for student research; that is, none of the little extras that helped to enrich your educational experience at CSUB.

This truly is a gem of a small department that is hitting its stride in a number of ways. With state-of-the-art SEM and ICP-MS instruments, an XRD, a suite of research-grade optical microscopes, a coring rig, an X-Ray sedigraph, Geographix licenses, and other new instruments and labs, we are one of the best-equipped small geology departments anywhere (the external equipment grants with which we acquired these facilities and instruments do not provide funding for supplies, maintenance and repairs). Furthermore, we are attracting high quality students, more and more every year, many of which end up working for your companies and agencies. Please dig deep this year and help support their education.

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

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Please indicate the amount you want to donate:

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

- Student Scholarships (will be added to the existing CE Strange Scholarship Fund)**
- Undergraduate Student Research**
- Curation of the Mitchell Fossil Collection**
- Unrestricted**

Thank You!



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