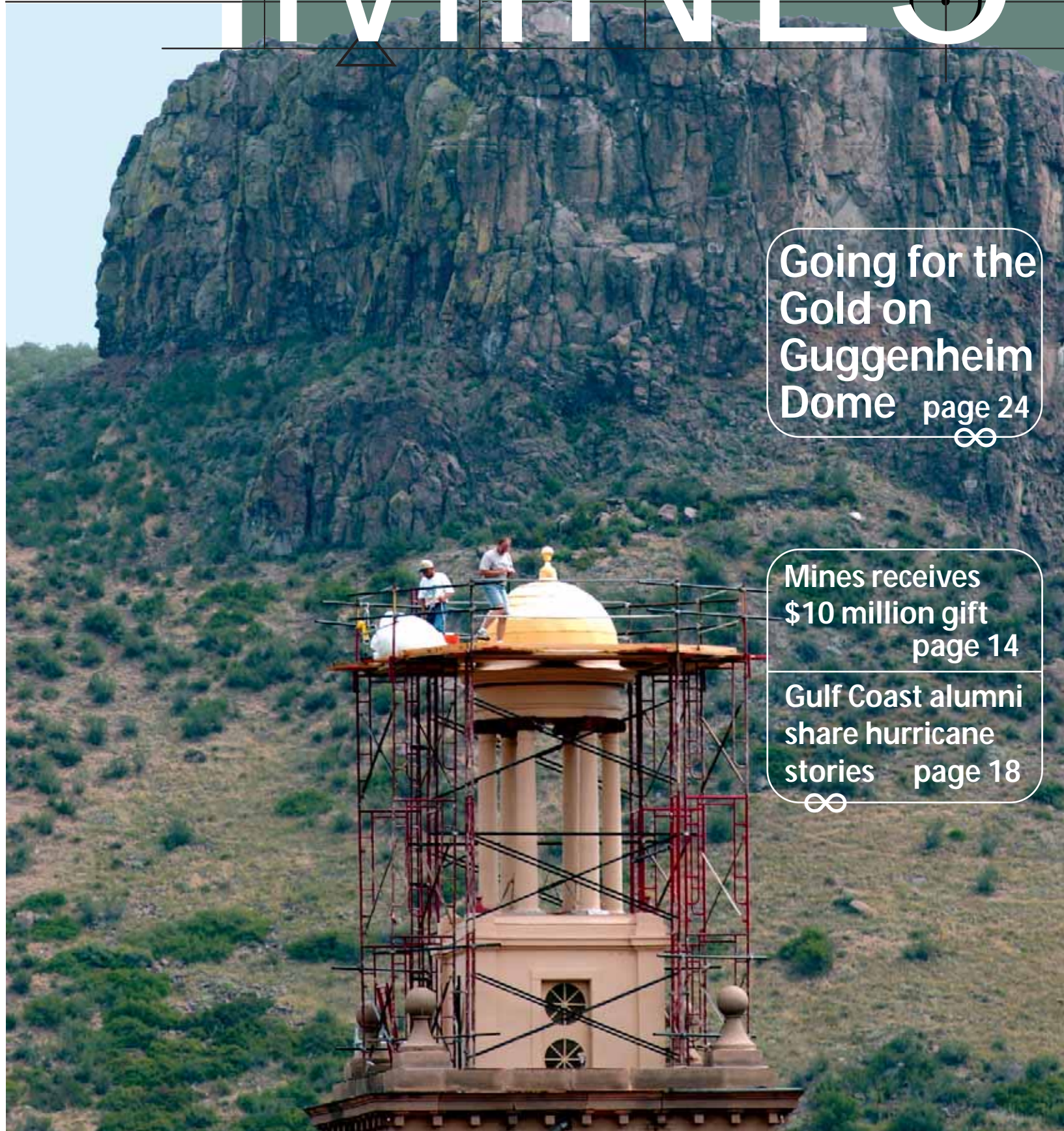


Volume 95 Number 4  
Fall 2005

# MINES



Going for the  
Gold on  
Guggenheim  
Dome page 24  
∞

Mines receives  
\$10 million gift  
page 14

Gulf Coast alumni  
share hurricane  
stories page 18  
∞

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- \* Measures 22" tall and weight 8 pounds

- \* Lamp price \$169
- \* Personalization Plaque \$15
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## Letters to the Editor

### A Lifetime of Sports

I enjoy reading of the exploits of the Mines athletes in the *Mines* magazine (especially of last year's football championship), as it reminds me that my athletic life at Mines was really fun and was made possible by an alumni scholarship. We won the 1951 RMAC football title and I was able to box for Fritz [Brenneke], wrestle for Hirsch McGraw, do track weights for Joe Davies and get the Dave Johnson outstanding athlete award.

But after four kids, Navy duty and 15 pounds, I realized I needed to get some physical activity. Luckily I found the activity and, more important, a real challenge in the handball court. For the past 40 years I've averaged three matches per week and I've never been bored. I'm always anxious to play and I'm quite convinced the handball has kept me mentally alert, as well as at my college weight. I calculate I'd gain 35 pounds per year eating as I do if I didn't play.

Bottom line, I'd recommend handball or other similar aerobic sport to all Mines athletes and non-athletes as a great way to stay fit, be challenged, lose weight, remain mentally alert and have a great time. Handball can provide the challenge Miners need. You'll find there is always someone better than you to challenge.

In this regard I've played in many state and national tournaments, getting to the finals in four national tournaments only to lose. So at the age of 75, I'm still challenged.

Another thought for the Mines Athletic Department, University of Minnesota offers handball classes for credit and we have over 100 kids that sign up each year and about one third of the students are women. (I'm privileged to help teach.) Mines, with a great intercollegiate athletic program might be wise to consider introducing its students to lifetime sports activities such as handball as few of us can handle football or basketball as years go by. I think we all realize staying active in this computer world is essential to good health.

**Ted Bergstrom Met E '54**

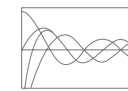
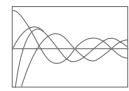
### Peak Oil

As a follow on to letters, including my own, on "Peak Oil and Global Warming," I think that it is important to note a major sink for CO<sub>2</sub>, regardless of source, are the oceans. Dr. John Martin once made the statement "Give me a half a tanker of iron and I will give you the ice age." His statement was based on his own ocean experiments with seeding iron to cause phytoplankton blooms near the Galapagos Islands and subsequent trapping of carbon in the sediments accumulating on ocean bottoms. His hypothesis was proven again by the SOIREE project. Why aren't CERI and other organizations like the Global Carbon Project taking a more committed interest in a full understanding of the Iron Hypothesis and beginning now to implement the process of sequestering carbon in the bottom of the oceans and at the same time promoting alternative energy production, as noted in my previous letter, that will result in major reductions in "anthropogenic" CO<sub>2</sub>?

The importance of the Iron Hypothesis looms even larger if one considers the recent articles about the melting of the Siberian peat bogs and the environmental carbon "landslide" (in the form of methane and/or CO<sub>2</sub>) that is about to occur. The methane stored in this melting mass is estimated to be equivalent to a quarter of all the methane stored underground around the world (see the *Guardian*, August 11, 2005, *Warming hits "tipping point"*). If the *Guardian* article is correct, the CERI measures will not be enough to offset global warming. What is needed are major efforts to go beyond modeling and theorizing to using proven science to achieve major reductions in atmospheric carbon levels, both methane and CO<sub>2</sub>; i.e., nuclear energy and implementation of the CO<sub>2</sub> sequestration concepts proven by the SOIREE demonstration of the Iron Hypothesis.

**Willard C. Gekler PRE '54**

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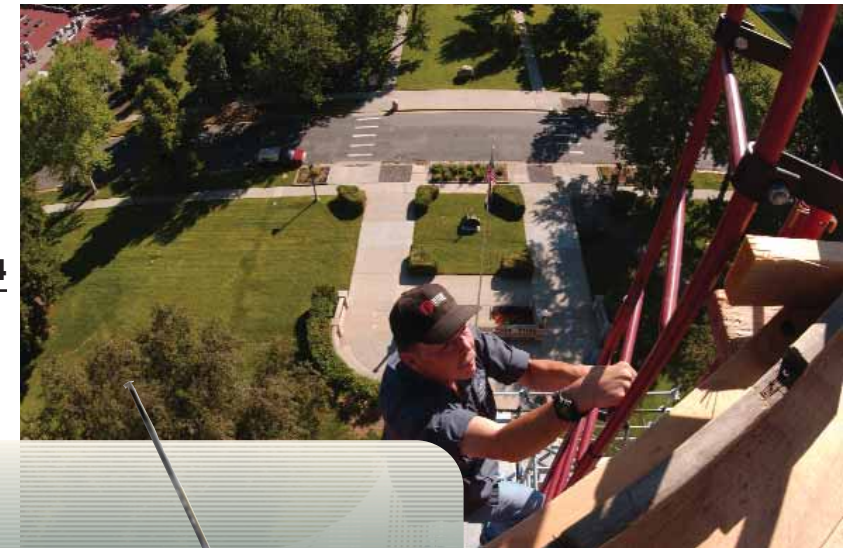
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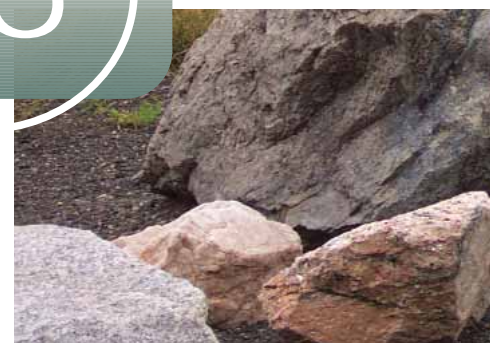


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### About Our Cover:

Just in time for Guggenheim Hall's 100th anniversary in 2006, the famous dome that crowns the building has received a new coat of gold leaf. Read more about the re-gilding of the dome, perhaps the most recognizable point on the Mines campus, on page 24. Photo by Tom Cooper.

# New Fuel Cell Center Coming to Mines

**State provides \$2 million to encourage the emerging fuel cell industry to locate in Colorado.**



The Colorado Governor's Office of Energy Management and Conservation announced in late spring that CSM has been selected to house the Colorado Fuel Cell Center in partnership with the Gas Technology Institute (GTI), the National Renewable Energy Laboratory (NREL), and Versa Power Systems Inc.

The Colorado Governor's Office of Energy Management and Conservation (OEMC) selected the proposal by CSM and its partners because it allows Colorado to meet its goal of expanding fuel cell related research, development, education and commercial application in the state. The proposal also meets the requirement of a \$1 million match to OEMC's \$2 million investment. This \$1 million was provided by the four team members. The CSM portion of the matching funds will be used for construction on the fuel cell laboratory within the CSM Geology Museum building with an estimated completion date of mid-March 2006. Much of the equipment will come from Versa Power Systems Inc.

"The CSM administration was most helpful in providing its share of the cost share," said Tony Dean, W.K. Coors Distinguished Professor of Chemical Engineering and member of the research team. This is consistent with energy research being an important focus area of Mines' strategic plan for the future.

GTI will manage the daily operations of the center for the two-year period and will provide technical advice on fuel cell research, development, demonstration and commercialization, as well as provide public education.

Governor Bill Owens said in his State of the State address in January 2005 that "Job creation in the 21st century economy can't be business as usual. Competition is global and it's fierce. We are proceeding with the formation of the Colorado Fuel Cell Center, which is designed to make Colorado a world leader in research, development and deployment of this cutting-edge technology."

Rick Grice, the OEMC director, said locating the future fuel cell center at Mines "...will build from the solid reputations of its partners and provide a strong research, economic and educational platform for fuel cell and hydrogen technology development and will help put Colorado 'in the game' for this important and emerging energy technology of the future."

Extensive research on electrochemical technology, materials and fuel processing will be performed by the partners, as well as CSM students and faculty. CSM will add fuel cell courses to the existing curriculum and oversee all student and faculty research programs. At the completion of this two-year project, operation of the center will be self-sustaining through research and development contracts and consulting agreements. The center will emphasize the development of the Colorado fuel cell industry as it actively responds to national solicitations in fuel cells.

Why the excitement about fuel cells?

According to Dean, "A fuel cell is especially attractive in a time of high worldwide energy demand since it can provide increased power from the same amount of fuel. Thus existing fossil fuel supplies will last a longer time." Neal Sullivan, assistant professor of engineering, who is coordinating the fuel cell center construction, added "You get twice the horsepower from a fuel cell from the same amount of gas."

A fuel cell is an electrochemical engine (no moving parts) that converts the chemical energy of a fuel, such as hydrogen, and an oxidant, such as oxygen, directly to electricity. The principal components of a fuel cell are catalytically activated electrodes for the fuel (anode) and the oxidant (cathode) and an electrolyte to conduct ions between the two electrodes.

This means that someone could power everything, including the family car, with a fuel cell. As an alternative to combustion, fuel cells generate power—like batteries—on the principle of electrochemical reaction. Typically, the reaction is between oxygen and hydrogen. The technology still has to overcome significant hurdles, beginning with the current high capital cost of construction. However, it has the potential to impact on a variety levels, from powering PCs to large-scale generation of power for cities.

Before the selection was announced, Mines and its partners had already attracted positive attention for the fuel cell center. In a 2004 opinion piece the *Rocky Mountain News* stated, "High-tech firms like to go where the action and the traffic already are. That Colorado is already home to the National Renewable Energy Laboratories is a big plus."

A fuel-cell applications and technology conference in Denver in 2004 focused on how companies can bootstrap themselves from small markets in which they are already commercially viable into huge ones where they compete with existing energy systems.

The conference compared the emergence of the fuel cell industry to the emergence of the personal computer in a mainframe-dominated industry. "As personal computers got cheaper and better, of course, they eventually conquered a lot of mainframe turf," *Fuel Cell* magazine said.

The *Rocky Mountain News* opinion piece concluded: "If something similar happens with fuel cells, Colorado wants to be in at the start." That day has come to the Mines campus and with it the opportunity to be the leader in fuel cell technology, create new jobs for Colorado, and promote education in fuel cell technology.

**By Ellen Glover**



Versa Power's solid-oxide fuel cell



Versa Power's 1kW fuel cell stack



Versa Power's 2-3kW fuel cell system

**Museum Sparkles**

At a September ribbon-cutting and dedication reception in the Geology Museum, visitors were treated to a first-time glimpse of the Betty H. Llewellyn Special Exhibit Room. New, top-of-the-line maple display cases now show off Sweet Home rhodochrosite intermixed with Colorado amonzonite and smoky quartz, courtesy of **Bryan Lees BSc Geol '85** and **Katherine Lees BSc Math '88**; a special exhibit of Colorado classic minerals, courtesy of David Bunk; a selection of Chinese minerals and a set of matched, 7-foot-tall, amethyst-lined lava tubes, donated by Marty Zinn; and a small display of Betty Llewellyn's personal tanzanite and diamond jewelry.



Marty Zinn spoke at the Geology Museum's dedication of the special exhibit room named for his mother whose photo is behind him.



Women's varsity soccer players advertised their upcoming game at the annual Celebration of Mines held on Kafadar Commons to introduce students to available campus activities.

**Help Wanted**

For 2004 and 2005 Mines graduates, the job market got brighter. Seventy-three percent of the bachelor of science degree students graduating in that time period are reportedly placed, the highest placement in the past four years. Master of science and professional degree graduates also experienced the highest placement rate in four years at 87 percent. Doctoral degree graduates were placed at 88 percent, a two percent increase over last year. The Mines Career Center defines placement as graduates finding jobs—with industry, government or

the military—in their field of study or continuing their education in graduate/professional school. Salary offers also went up. The average bachelor of science degree offer increased by 1.1 percent over last year to \$50,167, while the average master's and professional degree offer jumped 11.8 percent to \$60,746, and the average doctorate degree offer was up 4.6 percent to \$71,805. The good news for Mines students continues. At the 2005 Career Day held in September, a record 144 companies were represented.



Bonnie Harber BSc Eng '04 of Schlumberger, a global technology services company, talked with students during Fall Career Day, Sept. 13.

SHORT STAKES



New 2005 faculty members gathered on the steps of the Green Center following the annual faculty conference in August that kicked off the school year.



**Fulbright Scholar**

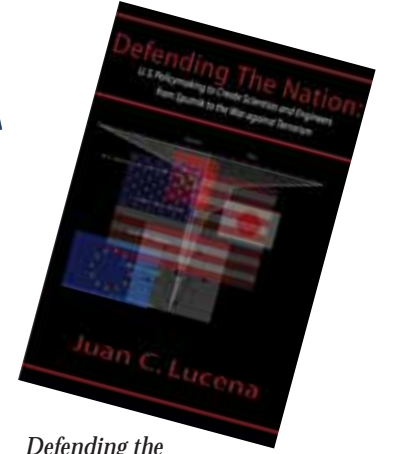
Tracy Camp, Mathematical and Computer Sciences, has received a Fulbright Scholar grant to research "Reversing the Trends in Questionable Network Simulations and Acute Gender Imbalance" at the University of Canterbury in New Zealand. Camp is one of approximately 800 U.S. faculty and professionals who will travel abroad to some 140 countries for the 2005-2006 academic year through the Fulbright Scholar Program, sponsored by the U.S. Department of State.

**Summer School in Croatia**

Directors of a six-day workshop and petroleum engineering summer school held in June at the Inter-University Centre in Dubrovnik, Croatia, were John Curtis, Geology and Geological Engineering, and **Thomas Davis PhD Geop '74**, Geophysics. Presenters at the workshop, Natural Gas—from Reservoir to the Burner Tip, came from many countries, representing a wide variety of companies and institutions. **Jennifer Miskimins MSc Pet '00, PhD Pet E '02**, Petroleum Engineering, and Max Peeters, Geophysics, also participated in the program.



**New Book on Shelf**



*Defending the Nation: U.S. Policymaking to Create Scientists and Engineers from Sputnik to the War against Terrorism*, by Juan Lucena, Liberal Arts and International Studies, has just been published by University Press of America.



During the summer field session in watershed hydrology, students conducted a single-well tracer test on a ground water system. Clockwise from left are Professor Geoffrey Thyne and students Sarah Doyle, Gwynn Woods and Nica Hoshijo.

**By Royal Decree**

Max Peeters has a new title, in addition to Distinguished Chair of Petrophysics and Borehole Geophysics. Appointed by royal decree on July 1, he is the Honorary Consul of the Kingdom of the Netherlands for the three Rocky Mountain states, Colorado, Wyoming and New Mexico. His responsibilities will include routine consular duties and attendance at official functions, as well as assisting Dutch tourists who encounter difficulties.



Max Peeters (left) signs his oath as Honorary Consul, administered by Consul General Mr. David van Iterson of the Kingdom of the Netherlands.

**Lectures from the Best**

Jerry D. Higgins, Geology and Geological Engineering, has been named the 2006 Jahns Distinguished Lecturer in Engineering Geology.

The Association of Engineering Geologists and the engineering geology division of the Geological Society of America (GSA) jointly established the Richard H. Jahns Distinguished Lectureship in 1988 to

promote student awareness of engineering geology through a series of lectures offered at various locations around the country throughout the year.



Eileen Poeter

Eileen Poeter, Geology and Geological Engineering and director of the International Ground Water Modeling Center, has been selected as the 2006 Darcy Lecturer, sponsored by the National Ground Water Research and Educational Foundation. The Henry Darcy Distinguished Lecture Series was established in 1986 to foster interest and excellence in ground water science and technology.

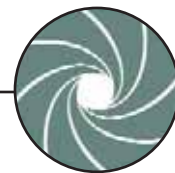
**Society Fellow**

The American Society of Civil Engineers (ASCE) has honored Tissa Illangasekare with Fellow designation, considered one of the most esteemed honors that civil engineers can receive from their peers. Illangasekare is the AMAX

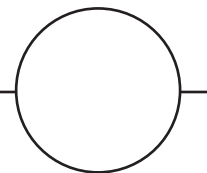
Distinguished Chair in Environmental Science and



Tissa Illangasekare Engineering. Founded in 1852, ASCE represents more than 133,000 civil engineers worldwide and is America's oldest national engineering society.



SHORT STAKES



**U.K.'s Best**

Mines Ph.D. student Simon Davies won the British Oxygen Company (BOC) Group Award for the Best Chemical Engineering Student in the United Kingdom, judged by the Institution of Chemical Engineers, for his research on the engineering of artificial blood for transfusions.

Davies completed his undergraduate work at the University of Loughborough.

The Science, Engineering and Technology Awards, Britain's most



Simon Davies (left) and Jim Ford, BOC managing director.

important awards for science and technology undergraduates, are organized by the World Leadership Forum. Davies received the award in London in September.

**South American Connections**

When President John Trefny and Mrs. Trefny visited Chile and Peru in September, they met with heads of corporations, leaders of universities, the Peruvian Minister of Energy and Mines, and alumni in Santiago and Lima, where active alumni sections will be developed. "In all cases, there was great interest in Colorado School of Mines as an institution of international importance in our focus fields," said President Trefny.



President and Mrs. Trefny at Machu Picchu in the Peruvian Alps.

**Fore!**

A par 6 disc golf course, located around the grassy areas of the Mines Park residence halls, has

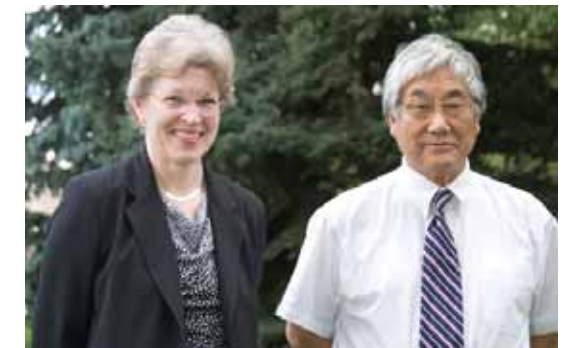
been designed and constructed by a senior design team in conjunction with the



Playing Disc Golf at Mines Park

School's Plant Facilities. The course is available to students, faculty, staff and visitors, and the Intramural

Sports Office will organize tournaments and leagues for Frisbee™ play.



Laura Pang, Liberal Arts and International Studies (LAIS) director, and Eul Pang, LAIS professor, have been elected 2005-06 co-presidents of the Rocky Mountain Council for Latin American Studies (RMCLAS). In February, they will sponsor the 2006 RMCLAS annual conference in Denver.

# Letters to the Editor

continued from page 3

While logic, observation, and science would properly tell us that man's ability to affect long-term climate change is miniscule, Dr. Nummedal will bring none of the government trough to CERl by proclaiming that the sky is *not* falling. There are huge grants to be had for studying global warming, and certainly part of Dr. Nummedal's job description is to secure grants. If Dr. Nummedal can turn the biggest fraud ever perpetrated on the world into dollars for Colorado, I commend him. P. T. Barnum would be proud!

**Greg Staff BSc CPR '73**

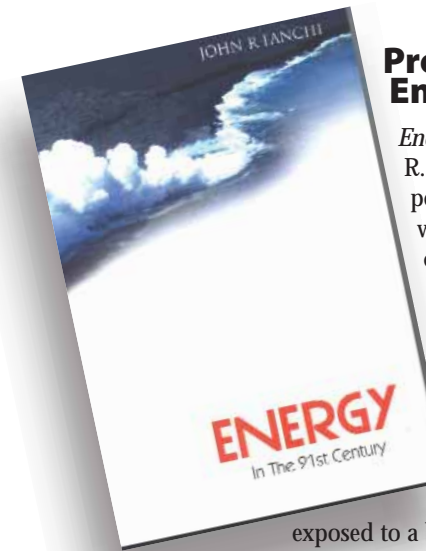
Surprised and saddened by the letters that you received challenging Dr. Nummedal's statement about the direct linkage between global warming and manmade CO<sub>2</sub> emissions. Their insistence on ignoring overwhelming evidence reminds me of the many years of denials by tobacco company executives and scientists that smoking caused cancer. I expect better critical reasoning skills from Mines graduates.

**Ian Berke Geol E '64**

**Correction:** In the Summer issue of the magazine, Dan and Megan Lewis were inadvertently left out of the Golden Golf Tournament acknowledgement of sponsors. Our apologies.

# Alumni notes & quotes

## Professor Publishes Energy Book



*Energy in the 21st Century* by John R. Fanchi, CSM professor of petroleum engineering, was written for a general audience and considers questions such as what kind of energy do we want to use in our future and what will be the consequences of our decisions? The book examines how society can make the transition from a reliance on fossil fuels to energy independence. The reader is exposed to a broad range of energy types and will develop an appreciation of the role that each energy type may play in the future. The book is available at Barnes & Noble and Amazon.com.

## Four Miners Ride for Charity



Four alumni participated in the 2005 Team Evergreen cycling club's Triple Bypass fund-raising event. The route, which covers more than 120 miles and more than 10,000 feet of elevation gain over three major mountain passes, makes this

an event only for the fittest cyclists. The first ride began in 1988 with just a handful of Evergreen, Colo., cyclists. It is now one of the nation's top single-day recreational cycling events and raises funds for a number of beneficiaries. A percent of the proceeds is distributed annually to community groups both in the cycling community and other local community organizations. Last year, Triple Bypass participants and sponsors helped generate more than \$50,000 in charity support. Pictured from left, **Alan Mencia BSc CPR '79**, **Rick Kesler BSc Met '70, MSc Met '74**, **David Scriven EM '70** and **Ralph Newman BSc Met '70** atop Vail Pass.



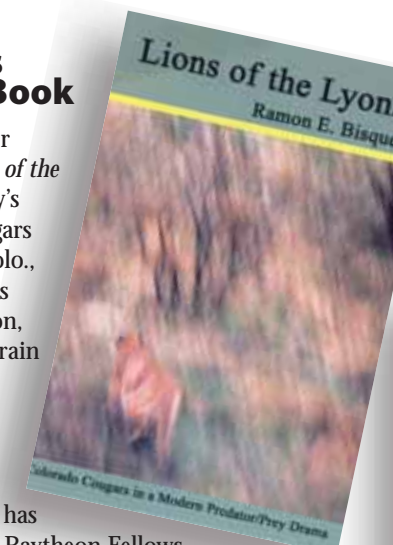
## Pearson '59 Coaches Senior Ballplayers

Retired Mines coach, **Bob Pearson PE '59**, coached two senior women's basketball teams that made it to the national championships held in Pittsburgh in June. Here he is pictured with the team members from the 55-59 age group, who came in sixth in the nation. Pearson also coached the 70+ women's team.



## Colorado Cougars Featured in New Book

Ramon Bisque, CSM professor emeritus, has published *Lions of the Lyons* about his and his family's personal observations of cougars on their land near Golden, Colo., over the past 30 years. Bisque's land is on the Lyons Formation, which produce the rugged terrain favored by mountain cats.



## Smith Named Raytheon Fellow

**Steven J. Smith BSc Math '80** has been named a member of the Raytheon Fellows community. He was recognized for his "unique combination of technical and project execution accomplishments that are essential skills for information technology (IT) today." Smith has been with Raytheon for 22 years. The Fellows program was designed to recognize technical achievement within the company. To be nominated as a Fellow, one must exhibit an exceptional degree of ingenuity, creativity and resourcefulness, be responsible for developing advanced information architectures and evaluate emerging IT technologies and create effective new solutions.

## PRESIDENT

The Board of Trustees invites nominations and applications for the position of President of Colorado School of Mines in Golden, Colorado. Colorado School of Mines is a public research university recognized globally for its unique mission in engineering, applied science and related disciplines, with a special emphasis on its four focus areas of Earth, Energy, Materials, and Environment. Small and select by design, Colorado School of Mines enrolls 3,100 undergraduate and 800

graduate students. Admission standards are among the highest in the country for a public university. Mines alumni hold positions of leadership in their fields worldwide, and each year new graduates enjoy an exceptionally high placement rate, as well as starting salaries well above the national average. Mines has a high per-student endowment for a public institution. The next President shall have extraordinary vision, building on the School's strong foundation in the extractive and energy fields, while providing

leadership during an era of change in engineering and applied science education. With demonstrated expertise in management – and exceptional skills in interpersonal relations and communications – the President will interact effectively with all constituencies, enhancing the School's 131-year tradition of excellence. Nominations and applications will be accepted until a new president is selected. However, review of applications will begin on November 22, 2005.

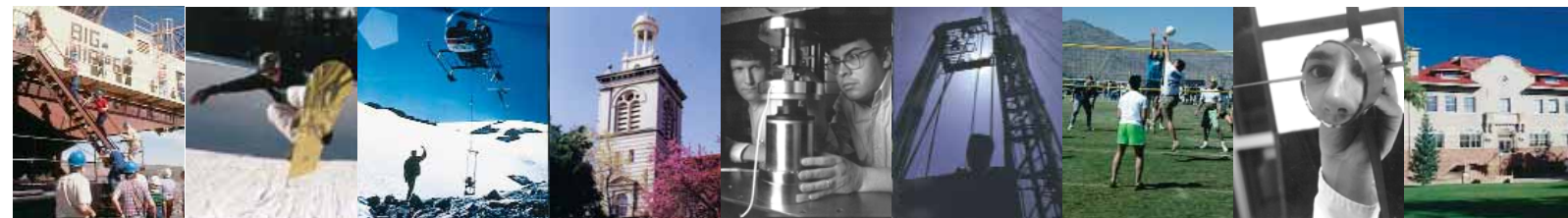
### Colorado School of Mines Presidential Search Committee

P.O. Box 547, Golden, CO 80402-0547  
pressearch@mines.edu

For more information, including a complete position description, please refer to our Web site at:

<http://www.mines.edu/Admin/president/search/>

Please note that the Colorado Public Records Act allows confidentiality of application materials only when a written request is made by the candidate. CSM is an EEO/AA employer. Women, minorities, veterans, and individuals with disabilities are encouraged to apply.



## Tim and Bernadette Marquez Give Record \$10 Million to Mines

**Timothy Bsc Pet '80** and **Bernadette Marquez** have pledged \$10 million, a record gift in School history, for the construction of a new petroleum engineering building on the Mines campus. Along with their gift, the Marquez's have challenged Mines and its supporters to raise an additional \$10 million, which is needed to build the educational facility.

"This incredible gift is a tribute to the passion that Tim and Bernadette Marquez have for education. We, of course, share that passion and will apply their generosity to providing our students with the best, leading-edge, technical education possible in the finest facilities we can design for that purpose," said Mines President John U. Trefny.

Timothy Marquez graduated from Mines in 1980 with a bachelor of science degree in petroleum engineering. He was born in Denver and graduated from Lincoln High School. He and his wife's philanthropic interests and community involvement have often focused on educational institutions, including the Santa Barbara City College Foundation, Gevirtz Graduate School of Education and Santa Barbara Museum of Natural History.

"I owe a large debt of gratitude to the Colorado School of Mines. The education that I received there gave me the base I needed to start my career as a petroleum engineer and ultimately build a successful oil company. The gift is my way of thanking the school

for what I received and helping to keep the Petroleum Engineering Department as the leading petroleum engineering school in the country," said Timothy Marquez.



President John U. Trefny, Timothy Marquez, Nigel Middleton and Bernadette Marquez

Petroleum Engineering Department Head Craig Van Kirk PhD Pet '72 foresees a new facility that will further elevate the department's profile among potential students and industry partners. "With the Marquez' generous gift, we look forward to building a state-of-the-art facility for petroleum engineering, incorporating key features that will enable us to further our interdisciplinary educational approach and expand our research capabilities,"

Van Kirk said. Graduates of Mines' petroleum engineering department are in high demand, with full placement upon graduation. Enrollment in the department has been increasing significantly.

Timothy Marquez is chairman and CEO of Venoco, Inc., an independent energy company primarily engaged in the acquisition and development of oil and natural gas properties in California, with regional headquarters in Carpinteria, Calif., and corporate headquarters in Denver. Venoco operates three offshore platforms in the Santa Barbara Channel, has non-operating interests in three other platforms, and also operates two onshore properties in Southern California and approximately 140 natural gas wells in Northern California.

## Transforming Resources: The Campaign for Mines Reaches \$125 Million Goal



Thanks to the extraordinary generosity of alumni, friends, corporations and philanthropic organizations, Mines has achieved the \$125 million goal established for the *Transforming Resources* campaign, the most ambitious capital campaign in the School's history.

Over the course of the campaign, Mines has benefited from landmark gifts and widespread support for fundraising initiatives. So far, the campaign has brought the largest individual gift on record, the largest gift ever to athletics and recreation, and the highest number of annual members in the 20-year history of the President's Council.

Of the \$125 million raised to date, over \$67 million has been committed to endowments which will provide reliable support for the School for generations to come. Twenty eight percent, or about \$32 million of the current fundraising total, comes from gifts made through annuities, trusts, bequests and other deferred giving arrangements.

While the campaign is positioned to surpass its \$125 million goal, certain priority areas still require crucial funding during this final stage, including the Arthur Lakes Library, the petroleum engineering building and recreation center construction projects, and scholarships. Each of these initiatives plays an important part in attracting and retaining top students from across the country and around the world, and enhancing the educational experience at Mines.

The Mines Fund will continue its critical role in generating support from alumni and friends during the final months of the campaign. The support of *everyone*, not just a select few, is the key to reaching an unprecedented level of success. While annual contributions to The Mines Fund are the foundation of giving at the School, additional gifts to the above campaign priorities are also essential to ensuring these areas remain strong.

For more information on the *Transforming Resources* campaign priorities and progress to-date, go to: [www.oia.mines.edu/campaign](http://www.oia.mines.edu/campaign)

## John and Erika Lockridge Give \$3 Million to Recreation Center

**John Geol E '52** and **Erika Lockridge** have given \$3 million toward the construction of the School's Recreation Center. The School will honor their gift, the largest contribution to athletics and recreation made in Mines' history, by naming the center's 2,500-seat competition gymnasium "Lockridge Arena."

"John and Erika Lockridge have been tremendously generous benefactors to Colorado School of Mines," says Mines President John Trefny. "With this landmark gift, the Lockridges will help create a magnificent events venue within the recreation center. The facility will not only benefit the Mines community and the City of Golden, but will also be a prime location for state, local and national tournament competition."

From his own experience as a varsity basketball player and geology major at Mines, John Lockridge understands first-hand how rewarding it is for students to participate in athletic as well as academic challenges during their college careers. "Erika and I are very pleased to be able to make this gift to the School," he notes, "knowing that both varsity and recreational athletes will reap great

personal rewards from this brand new facility." He continues, "It is my hope that this gift will inspire other alumni and friends of



The Lockridges and two Blaster Scholarship recipients celebrate the recreation center groundbreaking. From left, Grant Gunhus, Erika Lockridge, John Lockridge and Travis Test.

Colorado School of Mines to contribute to the future of this outstanding institution and its remarkable students." His wife Erika adds, "We are so proud to be able to have our name associated with Colorado School of Mines, and envision Lockridge Arena as a vital center of campus activity that will showcase Mines' hard-working and talented student-athletes."

John, a 1952 graduate of the School who is still active in oil and gas exploration and production, and his wife, Erika, a film producer, are enthusiastic

Mines donors. In addition to making this significant gift to the recreation center, in 2001 the Lockridges established the Blaster Basketball Scholarship Fund with a \$1 million gift that helped to launch *Transforming Resources: The Campaign for Mines*. Over the years, the Lockridges have also contributed to the School's Department of Geology. John was awarded the Mines Distinguished Achievement Medal in 1982 in recognition of his professional accomplishments, and he and Erika were recognized as Outstanding Supporters of the School's athletic program in 2003.

## Mines Acknowledges Individual, Corporate and Foundation Donations

Mines extends its sincerest gratitude to **Steve Geol E '56** and **Gayle Mooney** for their \$1,000,000 gift to the School. Mr. Mooney is chairman of **Thompson Creek Metals Company**, a privately-owned company and a leading global supplier of molybdenum. Their gift will establish an endowment fund for athletic scholarships.

### Other recent gifts of \$25,000 or more to Colorado School of Mines include:

**Dr. Lonnie L. Abernethy**, retired dean of engineering at UTEP, contributed \$50,000 as initial funding for the Lonnie & Gertrude Abernethy Fellowship in Ceramics (in memory of his parents) and the Lonnie L. Abernethy III Fellowship in Ceramics (in memory of his son).

**Charles "Scottie" Bruce '57** established a charitable gift annuity with a gift of \$100,000.

**Virginia L. Brandon** made a gift of \$40,000 in memory of her husband, **John A. Brandon '49**. Her gift will support an endowed scholarship fund in his name.

**Marshall C. III '67** and **Jane Crouch** will name the Outdoor Recreation Center Reception Area in the CSM Recreation Center with a gift of \$50,000.

**Hugh '49** and **Ann Evans** gave \$52,050 by donating appreciated securities to their charitable remainder trust.

**Ben Fryrear '62** made gifts totaling \$138,942 to the Dean Burger Memorial Endowment Fund. Mr. Fryrear has now given a total of \$500,000 to this endowment.

A bequest of \$25,000 was received from the estate of **William S. '23** and **Edith McWhorter**.

**Martha Ritter**, widow of **Wayne G. Ritter '36**, left a bequest of \$75,000.

Bequest distributions totaling \$46,100 were received from the estate of **William H. '39** and **Dorcas Sparr**.

**J. Don Thorson '55** and the **Harry T. Thorson Foundation** made gifts totaling \$200,000 to the J. Don Thorson Endowment for Engineering Senior Design and the Wyoming Scholarship Fund.

**Chevron** contributed \$120,000 to benefit several academic departments, student groups, scholarships, the WISEM (Women in Science, Engineering, and Mathematics) program, and MEP (Minority Engineering Program).

The **Adolph Coors Foundation** contributed \$500,000 toward its \$2,000,000 pledge for the new Student Recreation Center.

**HP** awarded an HP Technology for Teaching cash and product package grant valued at \$105,000.

**Schlumberger** contributed \$36,000 to support a graduate student fellowship.

**St. Mary Land & Exploration Company** contributed \$25,000 toward its endowed scholarship fund for Petroleum Engineering students.

The **Torrey Foundation** contributed \$300,000 to support research conducted by Dr. Jeff Squier '84, '86 in the Physics Department.



## Groundbreaking Ceremony Kicks Off Construction of Recreation Center



From left, President John Trefny, Sharon Trefny, John Lockridge, Erika Lockridge, Christina Coors, Laurie Cornell, Dean Harold Chevront, Trustee Terrance Tschatschula.



Site from above Sept. 23, 2005.

Major Contributors to the Recreation Center project who made gifts of \$5,000 or more

John Geol E '52 and Erika Lockridge  
Adolph Coors Foundation  
Bob Maytag  
Norbert Geol E '47 and Helen Hannon  
Frank and Dot Stermole  
Bud PE '64 and Kaye Isaacs  
Charlie McNeil BSc Min '71  
Frank Seeton EM '47  
Marshall BSc Geol '67 and Jane Crouch  
Schramm Foundation  
Bill Barrett  
Greg BSc Pet '86 and Lanai BSc Pet '85 Wolfe  
William Zisch BSc Min '79  
Donald Law  
Ronald Lease Met E '63  
Damian Friend BSc Geol '75

Completion of Mines' new recreation center won't come soon enough for the School's active student body. But the building's groundbreaking ceremony August 18 gave the campus a clear sign that the project is well on its way.

Students, varsity athletes, School administrators, benefactors and architects donned sky-blue hard hats as they turned the first shovels of dirt at the recreation center site near 16th and Maple Streets. The ceremony honored the contributions of many individuals and organizations involved in the project, including the recreation center volunteer fundraising committee, benefactors John Geol E '54 and Erika Lockridge, the Adolph Coors Foundation and other major donors to the project. As the largest capital construction project in the School's history, construction of the recreation center is being funded exclusively through private philanthropy, bond financing and student-approved fees.

The new 96,000 square-foot facility will more than double the space available for student recreational activities on campus. In addition to a competition arena, recreational gymnasium and aquatics center, the building will incorporate much needed multi-purpose meeting space where study groups and student organizations can gather. The center also will feature a climbing wall, indoor running track, rooms for aerobics, yoga, weights and conditioning, and a juice bar. With its location just south of the Ben H. Parker Student Center, the structure will extend the campus common area, contributing to the vitality of campus life.

One of the recreation center's most important functions, according to student trustee Laurie Cornell, will be revitalizing students after a hard day of classes. She foresees that the center's wide range of athletic opportunities will encourage more Mines students to participate in intramural sports and fitness activities. Brandon Leimbach, director of recreational sports, notes that over

the past few years, interest in club and intramural teams has skyrocketed, but their activities have been limited by the scarcity of indoor facilities. He and the thousands of students who participate in club and intramural sports are tremendously excited about the potential to expand the School's overwhelmingly popular recreational sports program.

Not only will the recreation center accommodate Mines' fitness devotees and offer an extensive variety of extracurricular activities, it will also provide a boost to the Oredigger athletic teams. For example, basketball and volleyball teams will benefit from having a regular daily practice schedule, which might not seem like a luxury for collegiate athletes. However, the men's and women's basketball teams and the women's volleyball team currently share a less-than-ideal rotating practice schedule in Volk Gymnasium. With two new gymnasiums available in the recreation center along with

Volk Gym, each team will be able to practice at more convenient times. Men's basketball coach Pryor Orser expects that having a new facility and greater options for team workouts will help enhance his athletes' success, both as students and as athletes.

Like Orser, volleyball coach Shelly Johnson and women's basketball coach Paula Krueger look forward to having ample time and space for practice upon completion of the new facility. All of the coaches have added the promise of a brand new facility to their list of selling points as they talk with potential Oredigger recruits. The entire Mines community eagerly awaits the impact that the new competitive arena and aquatics center will have in attracting greater numbers of spectators and ratcheting up the excitement level for Mines volleyball, basketball, and swimming and diving teams.

Swimming and diving coach Dave Hughes pointed out the importance of the larger, better-equipped aquatics facility. The new eight-lane pool will allow the team to carry

more athletes and the wider lanes will provide more functional practice space. Furthermore, the aquatics center will include essential diving equipment – namely, a three-meter board. The team's current facility has a single one-meter board, so the team has to travel to local recreation centers to practice the high dive. Upon completion of the recreation center, Hughes and his athletes will truly appreciate having an all-inclusive practice venue on campus.

The state-of-the-art facility will undoubtedly enhance campus recruiting, attracting both varsity athletes and students who are looking to become part of a vibrant campus community. The recreation center will also enable Mines to expand its summer camp program, which already brings hundreds of K-12 students to campus each year. Enjoying a rich summer camp experience at Mines could influence a prospective college student's likelihood of applying to the School.

The recreation center project is the key piece in the comprehensive campus master plan to create a physical environment that enhances the overall educational experience at Mines. Increased enrollment, a more diverse student body and dynamic co-curricular programs demand updated facilities. The construction of the recreation center, along with many other changes to the campus landscape, reflects the School's vision for the future and commitment to excellence. In addition to the many amenities and improvements to student life the recreation center will bring, notes Coach Krueger, this "beautiful building will be a perfect complement to our already beautiful campus."

For photos of progress on the recreation center, visit: [www.oia.mines.edu/campaign/news\\_and\\_events/](http://www.oia.mines.edu/campaign/news_and_events/) Under "Stories of Giving," click on "Facilities."

# Hurricane Horror

With at least 81 CSM alumni and their families living along the Gulf Coast of Louisiana and Mississippi, many Mines graduates were affected by Hurricane Katrina. Another 1,314 alumni families live in the area affected by Hurricane Rita. As an initial response to the disaster, the Association set up a message board on its Web site to help alumni in the stricken region locate one another. In addition to getting the word out that various people were safe, the message board revealed the kindness and generosity of our graduates.

Many offered their homes as temporary shelters.

The photos of hurricane damage on these pages came from alumni and their friends, families and co-workers.

**John Chapman M Eng Chem Mineral '69** and his wife, Jacquie, run a bed and breakfast in Centreville, Miss., about an hour north of Baton Rouge, La. By noon on Sunday, Aug. 29, all their rooms were reserved by people planning to evacuate from Hurricane Katrina. The Chapmans' house was filled with people and their pets including four dogs "of varying sizes, a diabetic cat, a macaw and a cockatiel." Centreville was well over 100 miles from the eye of Katrina, yet was battered. "This would be equivalent to having a weather event go through Pueblo and the winds/rain associated with it knocking out the power in Denver," Chapman notes.

He continues, "On Monday August 30, I awoke early to see what was happening with Katrina. As we watched the events unfold with the vivid imagery that television provides, the weather was worsening outside the house with increasing winds and heavy downpours that came at closer and closer intervals. Shortly after 9 a.m., a heavy wind gust came by and the power went out. Jacquie broke out the candles for later and I found the flashlights. Luckily, one of our guests had a wind-up portable radio that we could follow what was happening in New Orleans and Baton Rouge. We did not lose phone service at that time so I reported the outage and was told it would be a week to 10 days before power would be back. We learned later that Katrina knocked out power across all of southeast Louisiana and 75 percent of Mississippi.

"On Tuesday August 30, I woke up to discover the tap water was barely flowing. We now had gone one step further into survival mode. The day broke

without a cloud in the sky; a common occurrence after a hurricane pulls through and sucks all the moisture out of the air.

"On Wednesday, still no Internet and phone communication was more off than on. At about 10 p.m., the power returned. Shortly thereafter the water came on. I then tuned into the local stations and got a full visual appreciation of what had happened. The power went off again midday Thursday and didn't come back on until Friday evening. Luckily, the water did not stop flowing but we do have a boil water order until next week. The phones started working better on Friday. Things are finally starting to get back to a sense of normalcy, but I doubt anyone in the Gulf will ever forget Katrina."

**Barry Gidman BSc Geol Engr '77** lives in Lafayette, La., not directly hit by Katrina, but affected by an influx of evacuees, followed by a hit from Hurricane Rita. "On the morning of Saturday, August 27th, my wife Kathleen and I woke up early and were preparing to make a day trip to Metairie, a suburb of New Orleans," Gidman writes. "The skies were clear with little wind. I was vaguely aware of a hurricane in the Gulf of Mexico, south of Florida. On Friday, it had been predicted to travel up the central part of that state. Just before leaving, we turned on the television and were shocked to see a massive and strengthening vortex churning toward Biloxi, Miss., and eastern New Orleans. Hurricane Katrina was approaching the Gulf coastline with sustained winds in excess of 140 miles per hour and was wider than several states. Warning calls were quickly made to relatives, and they began to arrive at our home Saturday afternoon. Eventually 14 people and their pets, plus my own family of six and our own pets, prepared to hunker down.

"On Monday, August 29, the eye of Hurricane Katrina made landfall. We sat mesmerized in front of several television sets. Anxiety, confusion, and fear filled my guests' minds. What about my house? What about my job? When will we be able to return? What about my school?"

"The true extent and extensive damage of the storm was not realized until the following Tuesday. It quickly became apparent that the immediate response to the situation was grossly inadequate. Too many storms had approached in the past and then veered off leaving the region with a false sense of invincibility. The result was a disaster-within-a-disaster. Procedures were not followed or thoroughly thought out. Leadership by the city, state and federal government was too slow. Individuals made poor choices. Systems were overwhelmed. Security evaporated and urban anarchy briefly set in.

"But over the following days, the true American heroes emerged. The Red Cross and National Guard appeared and church doors swung open. Thousands of homes opened to the homeless. Individuals left their jobs and schools, hitched up their bass boats and set out to rescue the stranded. The rest of the country heeded the call to help and poured out their hearts and resources. If there is one shining moment in this catastrophe, it was this call to arms by the many unsung heroes and organizations."



This is Holly Beach in southwest Louisiana near Camaron, one of the places hardest hit by Hurricane Rita. As for my apartment in Lafayette, I stayed to ride it out, and I had flooding in my den and the storm windows began to leak. The bulging of the windows was absolutely awesome in approximately 80-90 mph winds. We had a chimney from the building south of me get torn away and the only thing that saved it from crashing into my living room window was a small tree. How the tree stayed rooted after it fell over and hung up the chimney is beyond my recognition. Other than that, I made out fine. Of course I had to take baby wipe baths for four days and use the bathroom at a nearby convenience store because the water was backed up.

**Asa Broadbent BSc Eng '03**



## Gulf Coast alumni share their experiences



The photo at right is an oil rig before the storm. The photo below is after the storm and the rig is tipped upside down.



The destructive path of Katrina was nearly 200 miles wide. That's like taking every stream and river on Colorado's Front Range from Ft. Collins to Colorado Springs and putting them into a flash flood stage of 35 feet high at the same time and observing the subsequent destruction.

This hurricane scooped out the land in lower Louisiana and moved the mouth of the



Mississippi River upstream some 20 miles. The surge up the Mississippi moved a ship repair dry dock that weighs hundreds of tons upriver nearly 10 miles. Three small towns were wiped off the map and the Gulf of Mexico reclaimed over 200 square miles of land from Louisiana (some estimates put that number significantly higher).

To give you an appreciation of what it was like in New Orleans during the evacuation on Sunday, it took five hours to go 30 miles on Interstate 10 with all lanes going out of New Orleans. That's

like the speed of travel around Denver during a blizzard - e.g., five hours from Denver to Boulder.

The evacuation of the greater New Orleans area is equivalent to having to evacuate the City of Denver and its immediate suburbs (i.e., Arvada, Wheat Ridge, Lakewood, Littleton, Englewood, Westminster and Aurora west of I-225) to the Arkansas River Valley and the only routes allowed are I-70 West, I-25 South, and US 28.

John Chapman

This magazine finds it way to Mines alumni scattered across the globe. They live alongside rivers, volcanoes,

earthquake zones, tornado zones, beaches and hills. All of them are vulnerable to some force of nature. I close with these questions for the reader. In regards to your region, please ask yourselves the following questions: "How prepared are you and your family?" "How prepared is your local and state government?" "How prepared is your national government?"

Barry Gidman

Photos were submitted by Amy BSc Geop '03 and Brandon Schrenk BSc Chem Eng '02, Asa Broadbent BSc Eng '03 and Millicent Schmidt BSc Phy '03. Background photo courtesy of National Oceanic and Atmospheric Administration.



## BOOK REVIEW

Anton G. Pegis, Professor Emeritus

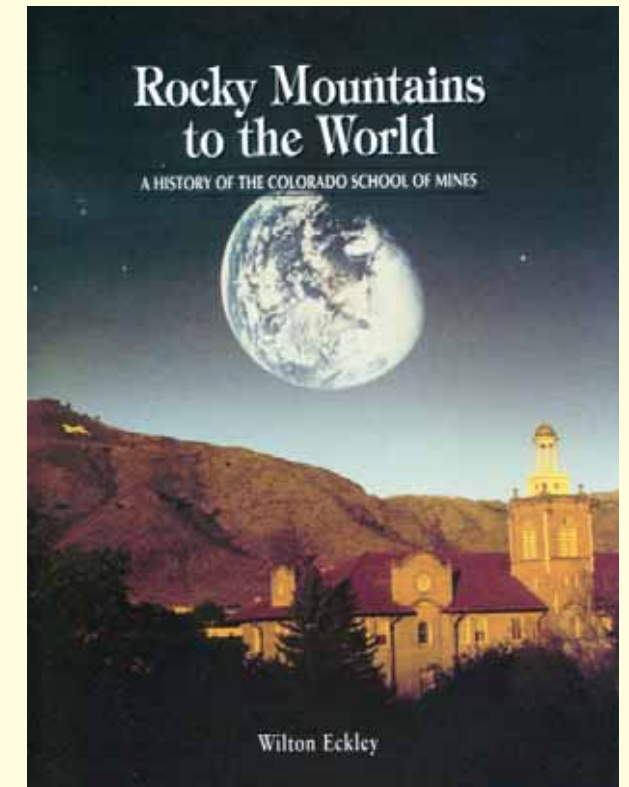
Events, dates, names and places—this is the stuff of historiography, the art of documenting the past as a permanent chronicle for the future. Professor Wilton Eckley's *Rocky Mountains to the World: A History of the Colorado School of Mines* is a prodigious compilation that draws a comprehensive picture of a serving educational institution, from its inception in 1874 to continuing emergence. Eckley's objective portrayal details the School's spirited evolution against the backdrop of social and political forces that shaped a nation.

Thus, some of the chapter introductions may seem digressive; however, they establish the ambience in which the School evolved. Eckley masterfully weaves industrial-technological developments, market forces, social changes and inter-national currents into the School's tapestry. He succeeds in detailing how the School's leaders have kept attuned to the times and adjusted to the demands of a global society.

Highlighted in each chapter are those administrators - weak and strong - who piloted the School through good times and bad. Very little escapes Eckley's scrutiny; he provides a balanced treatment of the various personalities and is evenhanded in assessing the successes and failures. From the leadership of founding fathers like Bishop Randall, through the tumultuous reigns of Victor C. Alderson and William Battle Phillips, to the steady guidance of Melville F. Coolbaugh, the School's voyage is traced through early instability, faculty upheavals, legislative budget woes, the Depression, and wars. Also documented are the more recent efforts of such leaders as Parker, Vanderwilt, Childs, McBride, and others - presidents who confronted a multitude of difficulties and moved the School through internal and external challenges.

Throughout the book are anecdotal inserts and photos that enliven and rattle the dry bones of history. Here the reader encounters many Mines traditions in all their glory and disrepute: among them Senior Day, Engineers' Day, whitewashing the "M," Blue Key activities. Even the mercurial adventurer Dominic E. Perigo is accorded a place. The photos depict a range of student highlights (note the hairstyles, uniforms and attire) and campus scenes that are in themselves markers of the School's journey into the 21st century.

Professor Eckley's depth of research, crystalline analysis and conversational writing style result in a highly readable, informative and interesting history - a fitting tribute to Clio, the ancient muse of history.



If you're interested in purchasing a copy of the book, see the form on page 27.

## Gifts of Appreciated Property ARE APPRECIATED ...

... and can provide for you and the School, for example:

- You may receive a tax deduction for the full market value of your property.
- You may avoid any taxable capital gain.
- You may be able to provide lifetime income for yourself and your family.
- You may realize estate-tax savings.
- With gifts of \$1,000 or more in value, you are recognized as a member of the CSM President's Council.

Undeveloped, revenue generating or environmentally sensitive land may be accepted by the CSMF Property Management Corp. The unique expertise and talents of the CSMF Property Management Corp. could help relieve you of the liability of property with environmental issues.

Gifts of property, stock or other capital assets can be used in making a charitable gift to your alma mater. As with any gift to the School, you will have the satisfaction of knowing that you are providing for future generations of students.

**For more information, contact the Managing Director, CSM Foundation Inc. Linda M. Landrum at (303) 273-3142**

### 2005 FALL SPORTS UPDATE

**FOOTBALL:** The football team began the season with losses to MIAA foe Washburn (28-17) and Division I-AA Northern Colorado (52-31) before getting its first win of the season, 45-13, over Western State Sept. 10. Junior quarterback Garrett Mehl leads the offensive attack as he has completed 89-of-132 passes for 1,025 yards and six touchdowns and has run for 161 yards and three scores. Senior wide receiver Justin Gallas has caught 29 passes for 383 yards and two scores, while senior linebacker Jared Heath is tops on the defense with 30 tackles, six tackles for loss and three sacks.

**MEN'S SOCCER:** The men's soccer team is off to one of the best starts in School history. The team began the season by winning five straight matches and was ranked 20th in Division II and third in the Midwest Region before dropping its first match, 1-0, to UC-Colorado Springs Sept. 11. Senior forward Rafael Ribeiro leads the team with five goals and 11 points, while junior goalkeeper Kevin Galloway has posted two shutouts this season.

**VOLLEYBALL:** The volleyball team began the season better than any team in program history as it has won eight of its first nine matches, including conference triumphs over Regis and Chadron State. The lone loss thus far was to nationally ranked and undefeated Washburn in which CSM won the first two games of the match. Senior outside hitter Samantha Bauer leads the team with 128 kills and a 2.98 hitting percentage. Sophomore setter Ashley Pagel, a transfer from Northern Colorado, has amassed 371 assists and 17 service aces, while senior libero Sarah Alsbrooks is tops on the squad with 196 digs. Earlier this season, she also became the all-time leader in career digs at CSM.

**CROSS COUNTRY:** Both the men's and women's cross country teams are off to great starts as both are ranked among the best in the North Central Region and all of Division II. At the season opening CU Time Trial, senior Hannah Davey claimed first place with a time of 22:56, while classmate Heather Beresford finished in the top 10 with a time of 23:26. On the men's side, junior Michael Rooney was 10th overall with a time of 26:38, just 12 seconds behind the first-place finisher.

### 2005-2006 WINTER SCHEDULES

#### MEN'S BASKETBALL

DATE	OPPONENT	TIME
Nov. 18	NEBRASKA-OMAHA	8 p.m.
Nov. 19	PITTSBURG STATE	8 p.m.
Nov. 25	St. Martins at Western Wash.	TBA
Nov. 26	Western Washington	TBA
Dec. 2	BETHANY LUTH.	8 p.m.
Dec. 3	GWYNEDD MERCY	8 p.m.
Dec. 9	Mesa State*	8 p.m.
Dec. 10	Western State*	8 p.m.
Dec. 16	FORT LEWIS*	8 p.m.
Dec. 17	ADAMS STATE*	8 p.m.
Dec. 29	Univ. of Mary (at Metro)	5 p.m.
Dec. 30	NORTH DAKOTA	7 p.m.
Jan. 5	New Mexico Highlands*	8 p.m.
Jan. 7	UC-Colorado Springs*	8 p.m.
Jan. 14	CSU-PUEBLO*	8 p.m.
Jan. 20	Metro State*	7 p.m.
Jan. 21	Regis*	7:30 p.m.
Jan. 27	FORT HAYS STATE*	8 p.m.
Jan. 28	CHADRON STATE*	8 p.m.
Jan. 31	COLO. CHRISTIAN*	8 p.m.
Feb. 3	Nebraska-Kearney*	8 p.m.
Feb. 9	Chadron State*	8 p.m.
Feb. 11	Fort Hays State*	8 p.m.
Feb. 14	Colorado Christian*	8 p.m.
Feb. 18	NEB.-KEARNEY*	8 p.m.
Feb. 24	REGIS*	8 p.m.
Feb. 25	METRO STATE*	8 p.m.

#### WOMEN'S BASKETBALL

DATE	OPPONENT	TIME
Nov. 15	JOHNSON & WALES	6 p.m.
Nov. 18	Wayne State at Northern St.	2 p.m.
Nov. 19	Northern State	6 p.m.
Dec. 3	BUENA VISTA	6 p.m.
Dec. 4	CORNELL COLLEGE	1 p.m.
Dec. 9	Mesa State*	6 p.m.
Dec. 10	Western State*	6 p.m.
Dec. 16	FORT LEWIS*	6 p.m.
Dec. 17	ADAMS STATE*	6 p.m.
Dec. 29	CARSON NEWMAN	3 p.m.
Dec. 30	NEBRASKA-OMAHA	3 p.m.
Jan. 5	New Mexico Highlands*	6 p.m.
Jan. 7	CU-Colorado Springs*	6 p.m.
Jan. 12	Colorado College	7 p.m.
Jan. 14	CSU-PUEBLO*	6 p.m.
Jan. 20	Metro State*	5 p.m.
Jan. 21	Regis*	5:30 p.m.
Jan. 27	FORT HAYS STATE*	6 p.m.
Jan. 28	CHADRON STATE*	6 p.m.
Jan. 31	COLO. CHRISTIAN*	6 p.m.
Feb. 3	Nebraska-Kearney*	6 p.m.
Feb. 9	Chadron State*	6 p.m.
Feb. 11	Fort Hays State*	6 p.m.
Feb. 14	Colorado Christian*	6 p.m.
Feb. 18	NEB.-KEARNEY*	6 p.m.
Feb. 24	REGIS*	6 p.m.
Feb. 25	METRO STATE*	6 p.m.

#### INDOOR TRACK AND FIELD

DATE	OPPONENT	PLACE
Jan. 21	JOE DAVIES INVITE	GOLDEN
Feb. 4	New Mexico All Comers	Albuquerque
Feb. 11	CSM ALL-COMERS	GOLDEN
Feb. 17	Prairie Wolf Invite	Lincoln, Neb.
Feb. 17	CSM TWILIGHT OPEN	GOLDEN
Feb. 24-25	RMAC Championships	Chadron
Mar. 10-14	NCAA II Nationals	Boston

#### SWIMMING AND DIVING

DATE	OPPONENT	TIME
Oct. 21-22	Colorado State Invite	All Day
Oct. 29	at Air Force	10 am
Nov. 5	at Metro State (Women)	10 am
Nov. 12	at Denver University	12 noon
Nov. 18	COLO. COLLEGE	4 p.m.
Nov. 19	University of Wyoming	12 noon
Dec. 2-3	Nebraska-Omaha Invite	All Day
Jan. 14	METRO STATE	1 p.m.
Jan. 27-29	Colorado College Classic	All Day
Jan. 27-28	Air Force Diving Invite	All Day
Feb. 15-18	North Central Champs (at Grand Forks, N.D.)	All Day
Mar. 8-11	NCAA II Nationals (at Indianapolis, Ind.)	All Day

#### WRESTLING

DATE	OPPONENT	TIME
Nov. 13	Wyo. Cowboy Open	All Day
Nov. 18	JACK HANCOCK DUAL INVITATIONAL	3 p.m.
Nov. 19	Northern Colorado Open	All Day
Dec. 3	Bob Smith Open (at Hays, Kan.)	All Day
Dec. 7	Chadron State*	7 p.m.
Dec. 9	AIR FORCE ACADEMY	7 p.m.
Dec. 10	Nebraska-Kearney Open	All Day
Jan. 7	Tracy Borah Invitational (at Gunnison, Colo.)	All Day
Jan. 21	Colorado Collegiates (at Alamosa, Colo.)	All Day
Jan. 27	Fort Hays State*	7 p.m.
Jan. 28	Nebraska-Kearney*	7 p.m.
Feb. 3	ADAMS STATE*	7 p.m.
Feb. 11	Western State*	7 p.m.
Feb. 15	CHADRON STATE*	7 p.m.
Feb. 25	NCAA II/West Regionals (at Gunnison, Colo.)	All Day
Mar. 10-11	NCAA II Nationals (at Findlay, Ohio)	All Day

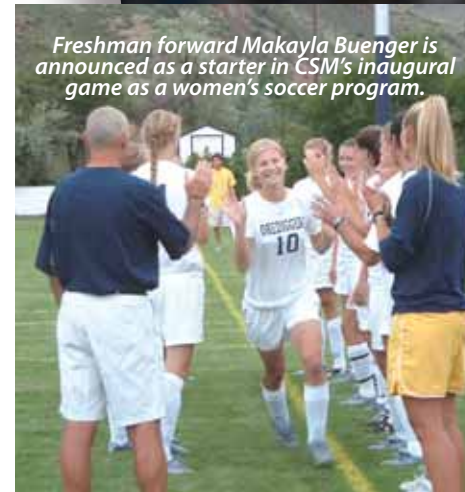
#### ALL HOME GAMES IN CAPS

Home basketball games and wrestling matches in Volk Gymnasium  
Home indoor track meets in Steinhauer Fieldhouse  
Home swimming and diving meets in Volk Natatorium  
Schedule is subject to change without notice.  
\* RMAC Games

# Women's Soccer Makes Historic Start at Mines

The newest program in the Department of Athletics made its debut August 25.

Led by Head Coach Frank Kohlenstein and Assistant Coach Lori Scheider, the CSM women's soccer team began its inaugural season with a 1-0 overtime win over Midland Lutheran at Brooks Field.



Freshman forward Makayla Buenger is announced as a starter in CSM's inaugural game as a women's soccer player.



Head Coach Frank Kohlenstein gives a pre-game talk to the women's soccer team prior to its 1-0 win over Midland Lutheran in the first game in program history.

Freshman defender Caitlyn Ruegger scored the lone goal of the match on a penalty kick with just 28 seconds to play in the first overtime. Sophomore goalkeeper Marissa Burson earned a shutout in the first match for the team by posting six saves.

The team has been on a roll ever since its first win as it has posted a 4-2 record through the first six games of the season. One of the losses was at nationally ranked Regis, while the other was 1-0 double overtime setback to Adams State.

Makayla Buenger and Liz Major have both scored two goals to lead the offense, while goalkeeper Marissa Burson has registered 34 saves and two shutouts.

*By Greg Murphy  
Sports Information Officer*

# Going for the Gold on the Guggenheim Dome

Photos by Tom Cooper



Not since 1987 had the gold dome atop 99-year-old Guggenheim Hall received a new coat of gold leaf. Hailstorms had taken their toll, so it was re-gilded during summer 2005.



Financed by a \$46,000 insurance claim for hail damage, the work began with removal of the old bronze panels around the 6-foot-9-inch-diameter half hemisphere dome that is framed in wood and covered with metal.



The bronze panels that cover the wood frame were removed.



And new bronze was added, then given a sizing treatment to make the gold leaf adhere.



Finally the panels were gilded. Jay Otto did the work. His father, Glenn Otto, applied the last gilding in 1987.



Guggenheim Hall was built in 1906 with a \$70,000 donation from Simon Guggenheim, then a U.S. senator from Colorado. How much gold does it take to cover the dome? Records from 1987 show that it took just four-tenths of an ounce of gold. The thickness of the gold leaf is .025 inch.

## Listen Up! Mines Takes to the Airwaves



Opportunities for the humanities are increasing at Mines. This semester, a group of students, headed by junior math major Justin Regina, created an Internet radio station.

Justin, who has been announcing basketball, volleyball and soccer games for Mines for the past several years, is the mastermind behind the project. "The idea came to me when I saw how often the opponent team would have a radio station following them, but we had nothing of our own," he says. "And considering football's success last year, I imagined that there could be quite a need to be able to listen to the away-games live. In the past, it was often the case that the only way to know what was happening was to wait until the game was over."

In January, Justin began asking his friends what they thought about a Mines radio station. "They were supportive and said they would join," he recalls. "I started posting flyers and the idea took off from there."



Carolyn Hendrex

Mines Internet Radio, MIR, began broadcasting this fall. Justin explains, "We became a CSM club back during the spring semester, founded under the name Colorado School of Mines Broadcasting Club, CSMBC. It is a 24-hour-a-day, 7-days-a-week broadcast. At the moment, it consists primarily of randomly chosen music that the computer selects. However we have more DJs beginning to host shows and we have a nice variety."

During the summer, the broadcasting club applied for money from CSM's technology fee revenues and received \$11,500. With that money the club purchased broadcasting equipment including a CD player, a server, microphones and headphones. "Our technology and equipment needs are fairly well met thanks to the tech fee, but we have other expenses associated with running the station," says Justin. The club needs to raise money for broadcasting license fees to purchase the rights to broadcast music and for promotional items and advertising to increase listenership. "We fund these through underwriting, where businesses have a chance to purchase underwriting

spots on the air," Justin continues. "We have raised about \$700 through this; however, we are looking for just a little bit more. Also the athletics department has been generous. They provide the transportation for our broadcasters on the away games and also cover the expenses of the long-distance phone calls we are required to make so we can get their signal back to our studio and out to the public."

The new station, which can be accessed from your computer at <http://radio.mines.edu>, broadcasts some Mines sports events live including all home and away football games. In the future, the hope is that all athletic events can be covered. The Mines athletic department hosts a weekly show Mondays at 7 p.m. (Mountain Time) to give updates on all Oredigger sports. "We also have a comedy show one night a week," Justin says, "and have been broadcasting the *Anonymous Right Brains* shows. There is a lot more in the works."

**By Maureen Keller**

## Events calendar

### November

- 17 Order of the Engineer. 5:15 p.m., Student Center Ballroom A. \$20. RSVP to Janet, 303-273-3295.
- 19 Arizona Alumni Olympics. Details TBA.

### December

- 01 Roving Metro Mixer: first Thursdays. See Web site for details.
- 02 Houston: 11:30 a.m. Third Annual Holiday Luncheon. Petroleum Club, 800 Bell Street, Suite 4300. Cost and reservation information TBA. dinner

### December

- 06 Denver - Holiday Dinner, 6 p.m. University Club, Denver. See Web site for details.
- 07 7 a.m., Alumni Breakfast at the Northwest Mining Conference. Red Lion Hotel in Spokane, Wash. 509-924-1132 or [s1harv3y@comcast.net](mailto:s1harv3y@comcast.net) for details.
- 08 Golden, Colo., Lunch Bunch: second Thursdays at Buffalo Rose, 1119 Washington, 11:30 a.m.  
Grand Junction, Colo., section luncheon: second Thursdays. Bookcliff Country Club, 2730 G Road, noon. For information call John Howe at 970-242-4903.

### January

- 05 Roving Metro Mixer: first Thursdays, see Web site for details.
- 12 Golden, Colo., Lunch Bunch: See Dec. 8 for details.  
Grand Junction, Colo., section luncheon: See Dec. 8 for details

### February

- 02 Roving Metro Mixer: first Thursdays, see Web site for details.
- 09 Golden, Colo., Lunch Bunch. See Dec. 8 for details.  
Grand Junction, Colo., section luncheon. See Dec. 8 for details.

### March

- 02 Roving Metro Mixer: first Thursdays, see Web site for details.
- 09 Golden, Colo., Lunch Bunch: See Dec. 8 for details.  
Grand Junction, Colo., section luncheon: See Dec. 8 for details.

### April

- 06 Roving Metro Mixer: first Thursdays, see Web site for details.
- 13 Golden, Colo., Lunch Bunch: See Dec. 8 for details.  
Grand Junction, Colo., section luncheon: See Dec. 8 for details.

For the most up-to-date information on what's happening in your area, check the website at [www.alumnifriends.mines.edu](http://www.alumnifriends.mines.edu) and click on "News and Events" (top of page). Scroll down to the calendar.



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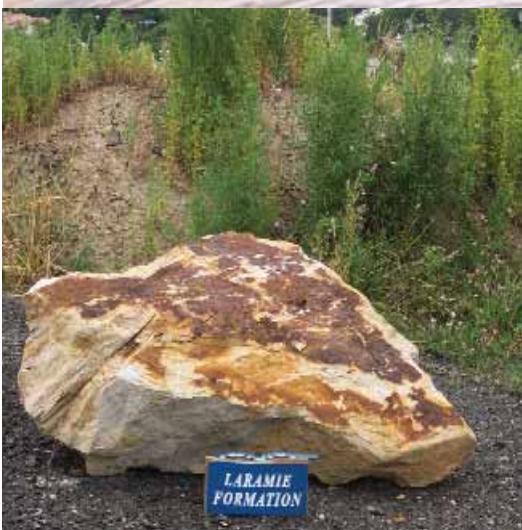
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# NEW CAMPUS TRAIL SHOWS OFF STATE'S GEOLOGY



By Maureen Keller

Trail builders, from left:  
Tim MacIntyre  
Bob Weimer  
Steve Sonnenberg '81  
Jeremy McCreary  
Mary Curtis  
John Curtis  
Shawna Gilbertson  
Adam Prochaska  
Nate Gilbertson '02

CSM has a wealth of interesting geology on campus and now there's a marked trail that shows it off. "I've taught all over the world, but I've never seen this much geology on a campus," says Bob Weimer, CSM professor emeritus, and the force behind the trail. Weimer has been taking people on geology walks through campus since the 1960s because Mines has one of the best examples showing the uplift of the Front Range.

Weimer explains, "The story of the Front Range uplift comes from rocks exposed on the campus, the Table Mountains and Green Mountain, three miles to the south. This walking tour visits outcrops of the Pierre, Fox Hills, Laramie and Arapahoe formations. The younger volcanic-rich Denver Formation, once visible in campus excavations, is now exposed only on the slopes of the Table Mountains. Environments of deposition and ancient landscapes are described with emphasis on the mined clay, coal, water aquifers, log imprints and dinosaur tracks. The

mountain terrain to the west is held up by resistant Precambrian crystalline rocks that were uplifted along the Golden Fault (64 to 55 million years ago). The uplift rotated the once horizontal formations in the campus area to a near vertical tilt. Volcanic lava flows cap the Table Mountains to the east and overlie low-dipping strata of the Denver Basin. The Golden-Green Mountain area may be regarded as the type locality for the record of events that built the Rocky Mountains, referred to as the Laramide Orogeny, a name derived from the Laramie Formation."

When the geology museum moved to its new building in 2003, Weimer thought the geology trail should become more formalized. More than a year and many volunteer hours later, the trail is marked and brochures are provided so that one can do a self-guided tour. Better yet, sign up for a guided tour led by Bob Weimer during special events, such as reunions.

The trail starts at the geology museum, heads south for a block and then turns up the driveway beside the residence dorms. A large sign on the corner at Maple Street points the way. Stop 2 (the first after the museum) is a prominent sandstone ridge with visible dinosaur tracks, ancient animal burrows and leaf and



wood imprints. The tracks were made about 68 million years ago when the land was flat and marshy, before it uplifted.

Stop 3 shows grey to tan fine-grained sandstones and gray, red, yellow and black claystones from freshwater deposits on the margins of major river channels that were located two to three miles north of Golden circa 68 million years ago. Both claystone and sandstone are typical of those mined by the Parfet family beginning in 1877. The clay was used to make bricks and tiles for construction.

At Stop 4, a prominent sandstone ridge from the Laramie Formation ends abruptly at a fault contact with marine shale of

the Pierre Formation, showing how beds extend laterally until they reach a fault or pinch out.

Weimer has assembled a rock garden at Stop 5. Rock samples, many taken from the nearby CSM drilling lab, describe the geologic formations in the north Golden area and are aligned according to their age: the oldest Precambrian rocks are to the west, the Paleozoic and Mesozoic are in the middle and the Cenozoic lava flows of the Table Mountains are to the east. Eventually, Weimer hopes to obtain and display samples of all the major mineral deposits that contribute to Colorado's history and wealth.

At Stop 6, the gray shale of the Pierre Formation, deposited in an ancient shallow marine seaway, meets the yellow, fine-grained shoreline sandstones of the Fox Hills Formation. Stop 7 is at the monument, near Brooks Field, to the 10 miners who died in the White Ash Mine when it flooded in 1889. The old mine was being used to mine a 6- to 8-foot coal seam along 12th Street in the late 1880s. From that spot, one can see sandstone ridges between the mined-out clay seams.

The final stop, just west of the Geology Museum, shows contact between the claystone of the Laramie Formation and the conglomerate of the Arapahoe Formation. The conglomerate was deposited by braided rivers draining eastward from an uplifted core of the Front Range. The Arapahoe Formation extends under the Denver Basin to the east and is the source of well water for metro Denver residents.

In February, CSM's geology trail became an Earthcache site. Earthcache is an adventure game for Global Positioning System (GPS) users. Cache notes are recorded on a Web site, [www.geocaching.com](http://www.geocaching.com), and include details on how to find various sites using GPS. There are nearly 99,000 sites within the United States and about 500,000 players.



The Legacy of the W. R. Smiths at Mines

By William R. Smith PE '48

*Inset: Bill PE '48 in his cap and gown. Right back row from left, Brian BSc Pet '85, Bill, Erik BSc Eng '03 with Jennifer in the foreground.*



In 1940, I was a high school junior and decided to attend the Colorado School of Mines. I didn't know what engineers did, but I liked and was good at math and science. I considered other schools in the area, but Mines' tuition was only \$35 a semester and I could live at home and commute.

After graduating from high school in 1941, I prepared to register in the fall but came down with equine encephalitis (sleeping sickness). It was months before I could do much more than walk around the block, so college that fall was out of the question. I improved over the year and entered Mines in September 1942. As World War II was raging then, before I graduated, I dropped out and joined the Army Air Corp. I served

from April 1944 to 1945, then returned to Mines in the spring of 1946. In the meantime, I married Joyce Burk and had two daughters. Although it was tough, I got through and graduated in 1948.

Brian, my fifth child (second son), observed over the years how much I enjoyed my career and also decided to attend Mines. He graduated with a bachelor of science degree in petroleum engineering in 1985. My grandson, Erik, earned an athletic scholarship to Mines and graduated in 2003 with a bachelor of science degree in mechanical engineering.

During the last few years, my granddaughter, Jennifer Marie Rotramel, began to consider engineering. Her

grandfather Bill, Uncle Brian, and cousin Erik taught her the Mines song and asked her if she thought she would make a good rambling wreck from Golden tech and a helluva engineer? The answer was "yes."

To bring the story up to date, I retired from the Colorado Oil and Gas Conservation Commission after 31 years and currently reside in the Elms Haven Care Center. Brian manages Kerr-McGee's oil and gas properties in the Denver Basin. Erik is a consulting engineer with Trigon and Jennifer attends Mines where she is a cheerleader and acts with the drama club.

Is that the end? We are not sure. I have seven great-grandchildren.

Alumnus Looks for Oil in Nevada *By Carolyn Hendrex*

**“Y**ou can have anything you want, Chamberlain. Find me oil in Nevada,” Bunker Hunt said to Alan Chamberlain PhD Geol '99. Chamberlain was a young man at the time and had not yet earned a PhD, but he had enough expertise and enthusiasm that oil tycoon Bunker Hunt felt he could trust him to make the idea that Nevada has substantial amounts of untapped oil resources into gushing reality.

In his speech, which can be viewed at [www.insinc.com/online/cspg29june2004/](http://www.insinc.com/online/cspg29june2004/), Chamberlain recalls his early days researching Nevada geology. He remembers how at first he could not find any useful existing Paleozoic data for Nevada. He says, “Nevada never did a geological survey, so I couldn't get any data from the state. I went to the federal government and I couldn't get any data. I went to the brokers in the area...and I couldn't get any data” However, not everyone had been blind to the possibilities there.

Shell Oil had spent \$200 million sampling and measuring the area but a change in management and exploration ideas caused them to abandon Great Basin exploration. Chamberlain, who was struggling so much to come up with any data, was impressed with how accurate Shell's data was. He says, “[It was a] beautiful precision job.” He had acquired copies of much of the data from ex-Shell geologists. He then contacted Shell management and asked if he could use it. They responded by making him the sole person with rights to the research.

Chamberlain got his master's degree at Brigham Young University, but not without some problems. In his thesis, Chamberlain had claimed that much of the shale rocks in the eastern Great Basin (western Utah and eastern Nevada) were non-marine. The area was believed to have been under the ocean and his claim threatened a government assumption. If the shale was deep-water marine, that meant little plant life could have grown, thus little organic matter would accumulate, thus no oil-rich

shale would be there. If it was organic-rich non-marine lacustrine oil shales it would mean that the government and made a huge mistake in Nevada geological policy.

A professor at BYU insisted that Chamberlain's thesis be rescinded. “Those shales cost me a lot of grief” says Chamberlain, who had to redefine his thesis by showing he had found vascular tree roots in place. Vascular trees only grow in fresh water or lake environments. Lacustrine oil shales provide some of the richest hydrocarbon source rocks worldwide. He was successful in defending his thesis and was allowed to keep his degree. He also now had another piece supporting his conviction that there is oil in Nevada.

“The Nevada thrust belt has great potential [in the search for oil fields] because source beds are thick, thermally mature, organic-rich, lacustrine oil shales deposited in the Mississippian Antler basin flood plains,” says the Petroleum Technology Transfer Council PTTC



newsletter as it explains just what Chamberlain is doing with his CSM dissertation on structural geology and Devonian stratigraphy of the Timpanah Range. Chamberlain says he chose to attend Mines because “They were big on sequencestratigraphy.” The existing data marked geological features where they weren't and completely missed others so he used his dissertation to collect more accurate data. He says “I used Devonian sequence stratigraphy to help unravel Cretaceous thrust faulting.”

Chamberlain showed a lot of conviction when in 1984, he quit his job at Placid Oil and took out all the equity in his growing family's new home in Salt Lake City. He then moved to Nevada and created Cedar Strat, a company of originally seventeen employees and several contractors. Today Chamberlain employs two CSM alumni. He says, “Chris Magee [BSc Geop '95] is our geophysical contractor helping us to develop the most comprehensive gravity map of the eastern Great Basin.

Bruce Birge, a sequence stratigrapher, is making systematic studies of Great Basin wells for the first time and correlating them to Cedar Strat measured sections with surface gamma-ray logs”

The biggest challenge for Chamberlain to overcome is “keeping positive and optimistic during the ‘dog days’ in the oil and gas business.” But, he says that he has had a great time “discovering geological features such as the Alamo Breccia, thrust faults and folds, fossils, depositional settings, and developing new techniques of exploration such as the surface gamma-ray, rapid precision mapping with a GPS on dirtbikes, and mapping with stereo aerial photos on computer.” Presentations of some of these discoveries at AAPG (American Association of Petroleum Geologists) conventions have netted him two coveted Levorsen awards and a Best Poster Award at a National Convention.

Chamberlain expects drilling to begin next year.





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Dear Alumni,

The big news on campus is that President John Trefny will retire in July 2006. The Alumni Association will surely miss one of its most ardent supporters. The Board of Trustees announced that, unlike the last presidential search, they wish to conduct the search themselves rather than rely on an outside executive search firm. They say that alumni are key to their efforts in finding the most qualified candidate who will lead Mines to the next level. We agree.

The Association Board believes there is no issue more important to the future of the School than the selection of a new president to replace Dr. Trefny. The School faces unprecedented challenges with respect to the funding of its operations and the level of oversight and control exercised by the State of Colorado. It also faces extraordinary opportunities to extend its global reach and become a player on the world stage. We believe there is no institution more qualified than Mines to address the world's growing energy problems. We can lead our nation's effort to become energy independent and to identify and resolve the complex economic, environmental and policy issues that will confront us every step of the way. There is no more pressing need or exciting opportunity.

Many of our alumni are already engaged in this critical effort in industry, government or academia. It will take a special person to lead the School and to successfully surmount these challenges and pursue these opportunities. The new president must have vision, courage and stamina and be able to assemble the right team. He or she must also be able to "walk the walk" and "talk the talk" and communicate with business leaders, politicians, scientists and engineers, environmentalists and members of the community. In addition, he or she must have the full backing and support of the Mines community. These are no small tasks!

We believe that the Association and the alumni can (and should) assist the trustees in the selection process. We can also be instrumental in creating the critical acceptance and support required from the Mines community. On behalf of the Association, we sent a letter to the Board of Trustees expressing these views. We believe that our role is consistent with and an intended consequence of the joint operating agreement between the School and the Association.

We have also been wrestling with our own governance issues. As a result of the execution of the joint operating agreement with the School, we decided it was time to review our bylaws and make necessary changes to bring them up to date.

A governance committee was appointed by the board to review bylaws and propose necessary changes. The committee suggested substantive changes to the CSMAA bylaws and the board adopted them earlier this year. The key changes are as follows:

- The members vote for directors in their respective regions (as they always have done). However, the bylaws were changed so that the elected board appoints the officers based on the recommendations of the nominating committee. This procedure is consistent with corporate practice, particularly with respect to nonprofit organizations, such as the Association.
- While it has been a tradition for officers to "go through the chairs" from secretary to president, there is no longer an automatic progression from secretary to treasurer to president-elect. Those positions are now exclusive, renewable one-year terms. This will ensure that the board has the power to appoint the best person for each position and it will also reduce the burden on the elected officers, many of whom may be unable to make a long-term commitment to serve as an officer of the Association.
- Members of the executive committee, including the president, are not required to be residents of the Denver-metro area. So long as the board is satisfied with the person's

ability and commitment to fulfill his or her duties, any alumnus/na is eligible to serve.

- The board has increased its size with the addition of three new at-large directors and a graduate student representative. This will enable us to be more inclusive and provide greater opportunities for interested alumni to serve on the board.
- The composition of the board's nominating committee has been changed to include three alumni chosen by the board, a School designee appointed by the School president, and the executive director of the Alumni Association. This will enable us to reach out to a broader pool of potential candidates for participation in the activities of the Association.
- The immediate past-president is an *ex-officio*, nonvoting member of the board. This will ensure continuity of experience and leadership.

The joint operating agreement (JOA) was signed nearly two years ago. The JOA specifies one person to fill the dual role of an executive director of the CSMAA and the director of the Office of Alumni Relations. Anita Pariseau is the first such director to fill that role. As executive director of the Association, she reports to the board; as director of the Office of Alumni Relations, she reports to the president of the School. This is a structure utilized by many colleges and universities and it's working very well for us. We are very pleased to have Anita on board (no pun intended!).

In the past two years, many of the benefits anticipated by the JOA have been realized. There are ever-growing efficiencies between the School and Alumni Association on awards committees, financial aid for students, student programming and the like. The one area of the JOA that has not yet been adequately resolved is the issue of funding for alumni career services, but I am hopeful that the School can and will pitch in and resolve this issue over the next few months. Another purpose of the JOA is to give the alumni, through the Association, a "seat at the table" with respect to important issues facing the School. The selection of a new president is precisely such an issue. We are hopeful that the Board of Trustees will involve the alumni in a meaningful way in the selection process.

Best wishes for the happiest of holiday seasons. After weathering hurricanes, floods and tsunamis this past year, I wish all alumni safety, peace, prosperity and happiness, wherever they may be.

Respectfully,

*Alan Mencin*  
Alan Mencin  
President, CSMAA

## East

### Oak Ridge, TN

Alumni in Oak Ridge hosted new freshman Eric Joyner. In attendance were **Lark Lundberg BSc Met '79**, **Barbara Smith BSc Geol '80**, **Dick Philippone Met E '49**, **Alan Liby Met E '67**, **MSc Met '72**, **PhD Met '74**, and **Roger Derby MSc Met, MSc Phy '66**, **DSc Met '68**.



## Rocky Mountain

### Glenwood Springs, CO

Three incoming freshmen, from left, Ozus Lohani, John Steuben, Ryan Delaney, were given a send-off party by Mines alumni in Glenwood Springs. **Steve Beckley BSc Pet '85** hosted. In attendance were, from left **Glenn Vawter PE '60**, **Dan Harrison BSc Min '71**, **Stephanie Onorofskie BSc Eng '01**, **Steve Onorofskie EM '70**, **MSc Min '71**.



### Idaho

The first annual Inland Northwest CSMAA Rendezvous took place at Prichard, Idaho, July 16. In attendance were **Don Bennett Geol E '63**, **Steve Harvey Met E '63**, **Will Pitman PE '62**, **MSc Pet '66**, **Bob Pearson PE '59**, **Wally McGregor Geol E '52** and his wife, Darlene, and **David Hebb MSc Min Ec '73** for sharing stories, panning for gold, fishing and other good times.



# Staying connected

## Metro Denver

A group of Mines alumni, CSMAA staff and friends attended a Rockies baseball game at Coors Field in July. The Rockies stunk, but everyone else had a good time.



## Homecoming

Homecoming was held in October, and this year included a pre-game picnic at Lion's Park in Golden.



## Move-in Day

The Alumni Association section hosted its annual move-in day picnic for incoming freshmen and their parents. It was held at the Coolbaugh House on a beautiful August afternoon.



## Central



## Chicago, IL

The Chicago section met at a Cubs-Rockies game in August.

## New Life Members

Gary R. Abbott '94  
Natalie A. Abbott '95  
Douglas E. Baldwin '03, '04  
John H. Benton '78  
Brett K. Brunk '92  
Debra K. Brunk '92  
Darren A. Buck '94  
Kristan K. Buck '92  
Bryan J. Burinda '94  
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Dennis G. Downing '94  
Randy G. Edelen '97  
Cherlyn J. Foster '97  
Robert C. Foster '97  
Paul R. German '00  
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Paul E. Pastore '89  
Robert W. Pearson '59  
Karen R. Phelps '96  
Randall J. Phelps '96  
C. Jason Pinto '96  
J. Douglas Pitts '69  
L. Douglas Poole '79, '97  
Colleen T. Porro '84  
Stephen E. Randolph '82  
Terrill W. Ray '90  
Kelly Nikel Reiber '99  
Michael D. Ringler '88  
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## Extraordinary in Nature

Announcing a one-of-a-kind travel-study opportunity through the Colorado School of Mines Alumni Association

July 22-27, 2006

Our adventure begins in Calgary, Alberta, where we will gather for our first journey through the foothills of the Canadian Rockies. We pass through Banff National Park en route to the spectacular setting of the Emerald Lake Lodge. Following a welcome dinner we will meet with the Burgess Shale Foundation for a two-hour interactive presentation on the world's most significant fossil discovery. Take advantage of a full-day opportunity to hike the notable Burgess Shale or sightsee in Yoho National Park, Lake Louise and along the Icefield Parkway to Peyto Lake and Crowfoot Glacier. Leaving Emerald Lake, we set our sights on the

remote Selkirk Range of the Columbia Mountains and helicopter to the Adamant Lodge for two and a half days strolling, hiking and exploring with knowledgeable mountain guides. Evening lectures by Mines geologist John Warne complement the days' hikes through the Adamant intrusion, one of the largest intrusions of black granite. This area is home to some of the oldest rock on earth – some theories date it back 3.8 billion years – and holds prime examples of both syncline and horn mountain structures. Following our exploration of the Adamants, we return to Calgary and then home on your own.

Call Audrey at Canadian Mountain Holidays directly for more information on this unique experience for the Mines community at 1.800.661.0252. Don't delay as space is limited; the CSMAA/RMAG Grand Canyon River Rafting Trip for 2006 sold out in a flash!

**EDWARD E. BENNETT MET E '42** died May 23 in Bartlesville, Okla., from a condition related to pancreatic cancer. He was 85. A Denver native, Bennett followed his brother, Robert Met E '40, to Mines. At CSM he participated



in ROTC and worked for a professor on campus. After graduation, he joined the U.S. Army Engineer Corps as a second lieutenant and served in Europe until the end of the war. After the war, he was employed by Public Service of Colorado and served in the Colorado National Guard. In 1951, Bennett began a 34-year career with Phillips Petroleum and started at the ammonium nitrate facility in Cactus, Texas, followed by a transfer to Oklahoma. He retired in 1985 as director of the materials testing laboratory of Phillips. Bennett was active in Bartlesville youth baseball for many years and was an avid gardener, golfer and stamp collector. He is survived by his wife of 63 years, Jean, two sons, Stuart PRE '66 and Bruce, seven grandchildren and six great-grandchildren.

**BENJAMIN E. BINKLEY GEOP E '52** died peacefully at home in San Anselmo, Calif., June 6 at age 77.

The Denver native was a member of the Tau Beta Pi honor society while at Mines. After 30 years at San Francisco International Airport, he retired as a project manager in the engineering department. Binkley was an experienced and adventurous traveler to exotic locations, a passion he shared with his wife of 44 years, Annette. Binkley is survived by his widow, a brother, nieces, nephews and cousins.

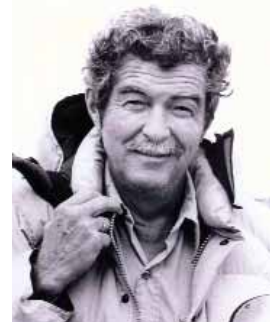


**DAVID R. BOYDSTUN BSC ENG '90** died on Lummi Island, Wash., while going for his daily run June 8, one day before his 37th birthday. He was an exceptional athlete, competing in his first marathon in Dubai in January. Recently he participated in Bellingham's Ski to Sea as the runner. Boydstun was employed by Chevron-Texaco and worked in Bakersfield and Ventura, Calif., Ferndale, Wash., Aksai, Kazakhstan and, most recently, Al-Zour,



Kuwait. When he died, Boydstun and his family were in Washington for their summer home leave. Boydstun met his wife, Anne Madsen, at a triathlon in Bakersfield, Calif., and they married in 1993. Their daughter, Bryn, was born in March 2002 and son, Dylan, was born in Kuwait in January. Boydstun loved the outdoors and learning and studied Russian and Arabic. His favorite quiet time was spent playing the guitar. Boydstun is survived by his parents, his widow, two children and a sister.

**ROBERT W. DECKER DSC GEOL E '53** of Mariposa, Calif., and Kawaihae, Hawaii, died June 11 at age 78. In addition to his Mines degree, he also held a master's



degree from Massachusetts Institute of Technology. A geophysicist and volcanologist, Decker taught at Dartmouth College for 24 years, then served as director of the Hawaiian Volcano Observatory for the U.S. Geological Survey. He studied volcanoes all over the world, especially in Central America, Iceland, Indonesia and Hawaii. Together with his wife, Barbara, he wrote 15 books about volcanoes and about U.S. national parks and authored more than 100 scientific papers. Decker is survived by his widow,

sons Eric, Rand, Jeffrey and Greg, a stepdaughter and stepson, many grandchildren and three great-grandchildren.

**CHARLES B. "CHUCK" DUGGER JR. MET E '66** died July 27 in Reno, Nev. He was 61. He spent his entire career in the mining industry and traveled extensively throughout six continents during the course of his professional life. Dugger was president and owner of ACP Equipment and was still calling on customers a month before he was hospitalized. In addition to his business endeavors, the hard rock miner was also an expert at the propagation of African violets. Dugger was an avid learner always ready for a challenge. Documenting his family history through his photography was a favorite pursuit. Dugger is survived by his wife of 23 years, Pat, four sons, a stepdaughter, two brothers and seven grandchildren.

**ALAN FERGUSON GEOL E '55** of Sugar Land, Texas, died of prostate cancer July 29. He was 74. Ferguson was born in Niagara Falls, N.Y., and was an Eagle Scout. He first attended Niagara University and Cornell University before enrolling at Mines. While at Mines, he was a member of Tau Beta Pi, Sigma Gamma Epsilon and AIMME and was on the CSM swim team for two years. His first job after graduation was with Humble Oil and he spent 10 years in Louisiana and Mississippi. He then moved to Houston. Between 1984 and 1988, Ferguson was an independent contractor developing oil and gas prospects along the Louisiana and Texas gulf. In 1988, he joined Arkla as a consultant. In 1994, the company was sold to Seagull, and Ferguson retired a short while later. He then worked from home as an independent contractor. Ferguson was also an artist and



his wife, Phyllis, sells his watercolors ([Watercolors7@hotmail.com](mailto:Watercolors7@hotmail.com)) on eBay. Ferguson and his wife had lived in Sugar



Land for the past 15 years where they enjoyed dancing, tennis, sailing, and working crossword puzzles together. Ferguson is survived by his widow, two daughters, a son, three grandchildren, a sister and a brother.

**LEROY "LUKE" FOURNIER GEOL E '50** of Moody Beach, Me., died May 14 after a long illness. He was 80. In 1942, Fournier joined the U.S. Navy and served in the South Pacific during World War II. He was a quartermaster second class on the destroyer USS *Izard* and was involved in the battle for Iwo Jima and the liberation of the Philippines. Afterward, he used the GI Bill to attend Mines where he was a member of Sigma Nu. While in Colorado, he met and married his wife, Elinor Anderson. During his career, Fournier explored for oil in Turkey, Libya, Peru, Borneo, Pakistan, Texas and Indonesia and always had his family with him. "Life for the kids was an adventure," his son said. After retirement, Fournier taught geology at Saint Joseph's College. He was vice commander of the Leroy Hanson Post of the American Legion and helped organize local Memorial Day parades. He was also a member of the Knights of Columbus, the Wells B.P.O. W. #2736, the American Association of



Petroleum Geologists and the American Institute of Professional Geologists. Fournier is survived by his wife of 57 years, a son, two daughters, two granddaughters, a brother and a sister.

**JERRY LEE FULLER EM '77** died July 13 at age 53. He grew up in Dawson Spring, Ky. At age 22, Fuller decided to pursue mining



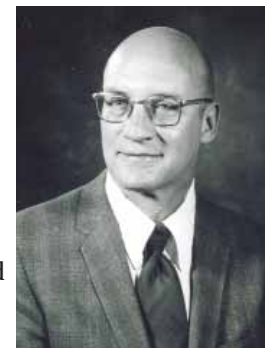
engineering at CSM. In 1979, he began working for MSHA in the ventilation department. When the division closed in 1996, he went to work for OHSAM inspecting government office buildings and Job Corp sites. He retired in 2003 to spend more time with his family and to tend his garden. After retirement, he volunteered for Habitat for Humanity in Evergreen, Colo. He helped build homes and gave lectures on safety. He loved his work, and was a pioneer in his field. At CSM, he taught classes for mine rescue and safety. Fuller is survived by his wife, Vickie, twins Jessica and Jesse, grandsons Kasen and Gavin, his mother, sister and brother.



**PAUL L. GODDARD JR. GEOL E '47** died of cancer at home in Swan Lake, Mont., May 2. He was 82. At Mines, Goddard was a member of ATO fraternity, Sigma Gamma Epsilon and participated in intramural sports. His junior year he was called into service during World War II and served in Navy aviation. Afterward, he returned to Mines and graduated. While in the service, Goddard married Martha Ekiss in 1944. His professional career took him to Texas, Colorado and California. He was the West

Coast representative of A.R. Wilfley Company until his retirement in the mid 1980s. Goddard enjoyed flying and would frequently fly to Baja California, land on a beach, camp out and fish. He also was a skilled woodworker and built fine furniture. His widow, Marty, daughter Diane Paulson and three grandchildren survive him. A son, Paul, predeceased him.

**STANLEY C. HOLMES EM '53** died June 5 in Scottsdale, Ariz., at age 75. Holmes developed his musical talent early, learning to play saxophone, clarinet, trumpet and trombone. By age 13, he owned and operated two dance bands that played at military bases. Holmes attended University of Alabama before transferring to Mines. While in Golden, Holmes met and married Ladine Mayberry. After graduation, he became an underground miner for Phelps Dodge in Bisbee, Ariz. He and Ladine raised three children. Holmes was a leader in safety and fought several difficult underground fires. In 1974 he was transferred to a developing underground mining project in Arizona and eventually became general superintendent of the Safford project and the Morenci Mine, and was vice president of Western Nuclear. He retired from Phelps Dodge in 1984 and moved to Ennis, Mont., to work at the Beaverhead Mine before retiring for good in 1987. Holmes was an accomplished pilot and was active in the Civil Air Patrol. He was an avid traveler to South and Central America, Australia, Asia and Europe. He especially loved the Hawaiian Islands, South Pacific and the Caribbean, where he loved to sail. In 1994 his wife, Ladine, died and several years later he married Mary Lou Saegart and moved to Tucson, Ariz., where he became an avid supporter of University of Arizona women's softball and



volleyball programs. Holmes is survived by his second wife, three children, four stepchildren and 14 grandchildren.

**ROBERT G. "BOB" JACOBSEN GEOL E '53**, a retired petroleum engineer with Mobil Oil Co., died April 27 of congestive heart failure at his home. He was 79. Born in Roselle, N.J., Jacobsen had lived in Metairie, La., for the past 40 years. At Mines he was a member of Tau Beta Pi. He was an exploration geologist for more than 30 years and contributed to the discovery and application of hydrocarbon indicators. He was a naval aviator and veteran of the Korean War, served in the Navy Reserve and was awarded the Distinguished Flying Cross. Jacobsen was a member of St. Augustine Episcopal Church, the Bissonet-Maned Downs Country Club and Beach Club, the Elmwood Pontchartrain Basin Foundation and CSMAA. He also supported several charitable organizations. Jacobsen is survived by his widow, Anne, a son, a daughter, a brother and two grandchildren.



**LYLE R. JENKINS MET E '49** died peacefully at home in Decatur, Ill., May 11. He was 83. Jenkins was a fighter pilot in the U.S. Army during World War II and landed twice on Iwo Jima. He married Joan Kleeburg in 1942. After the war, Jenkins attended Mines and then worked as a metallurgist for U.S. Steel Corp., John Deere, Campbell, Wyant and Cannon, finally retiring as vice



president from Wager Castings in 1983. He then was technical director for the Ductile Iron Society through 2000, certifying member foundries and presenting seminars throughout North America. Jenkins was an expert on the production of ductile iron. During more than 40 years, he set the standard for technical service and expertise. He was a member of the American Foundryman's Society, American Society for Metals International, American Society for Testing and Materials and the International Committee of Foundry Technical Association. The two achievements for which he was most proud were the development of a production process for thin section ductile iron and the introduction of fracture toughness and dynamic tear testing to the malleable and ductile iron industries. Jenkins is survived by his widow, a son, three grandchildren and five great-grandchildren.

**NORMAN S. MORRISEY GEOL E '42** died Aug. 10 at age 86 in Tulsa, Okla. Morrisey was born in Wollaston, Mass., and during World War II, he served as a weather



forecaster and in-flight observer of submarine activity and navigational flights in the U.S. Navy. While in the Navy, he studied meteorology at Stanford University and Massachusetts Institute of Technology. He later earned a master's degree in geological engineering from University of Tulsa. Morrisey was employed by Pan American Petroleum Corp. from 1947 to 1954. He later worked for Stanolind Oil & Gas Co., now Amoco, as a research geologist, area geologist and

geophysical coordinator. From 1954-1958, he was a technical editor for the company. In 1960, he became advertising manager for the Bulletin of the American Association of Petroleum Geologists. He was also a founder and executive vice president of GeoData Corp., a leader in acquisition, sale and interpretation of seismic and geophysical data. In 1978, he became an independent geologist. An avid skier, Morrisey co-founded the Tulsa Ski Club and later the Tulsa Racquet Club. He was a member of the Tulsa Geological Society. Morrisey is survived by his widow, Mary, and two sisters.

**JAMES "JIM" PERKINS GEOL E '49** died July 15 in Oklahoma City at age 84. His schooling at Mines was interrupted in 1942



by World War II. He served as a B-24 navigator, 15th Air Force and was awarded a Distinguished Flying Cross and air medal with three oak leaf clusters. He was discharged in 1945 and returned to Mines. After graduation, Perkins became a geological engineer for Magnolia (later Mobil) until his retirement in 1981. Perkins was an avid rock hound and his favorite hobby was lapidary work. He is survived by his wife of 52 years, Elaine, one son and one daughter.

## Also in Memoriam

Robert E. Olson Geop E '91	January 2005
Robert E. Phelps MSc CPR '75, PhD CPR '78	2005
Donald S. Quick Geol E '53	April 27, 2005
Charles D. Sands Geol E '37	May 2005
William S. Smith EM '33	May 5, 2005
Eduardo M. Villareal EM '40	November 2004
Jerome Zohn Met E '47	Dec. 12, 2003

## 1940

**S. Fillmore Peavey EM** is retired in Grand Junction, Colo. Give him a ring and make his day!

## 1941

**Robert L. Wilson Geol E** lives with his daughter and her family in Medford, Ore

## 1952

**James H. Butler III Geol E, PhD Geol '72** is president of Tri-Star Petroleum Co. in Houston.

## 1953

**Paul D. Hinrichs Geol E** is retired in Ventura, Calif.

## 1957

**Frank W. Wolek Geol E** is retired in Stuart, Fla..

## 1958

**Peter J. Sanger PE** is director of corporate development for Encore Petroleum in Houston.

## 1959

**James L. Payne Geop E** is a principal and chief executive officer/chairman of Shona Energy LLP in Houston.

## 1961

**Gary L. Leighton EM** is general manager for Compania Minera Tamaya in Ovalle, Chile.

**John D. Rockaway Jr. Geol E** heads the geology program at Northern Kentucky University in Highland Heights, Ky.

## 1965

**Francis J. Carrigan Geol E** is director of science and technology ventures for Columbia University in New York.

## 1967

**Rasoul H. Al-Kishmiri PE** is a linguist for Titan in Quebec, Canada.

**J. Ros Hill Geol E** is an adjunct professor at University of Arizona in Tucson.

**Clyde E. Morrison PRE** is retired in Granbury, Texas.

## 1968

**Robert E. Brookman Met E** is retired in Bend, Ore., concentrating on golf and fly fishing.

## 1969

**Ronald F. Bills EM** is principal of PCCI in Rancho Cordova, Calif. **Robert C. Nelson M Eng Chem** is a urologist for Robert C. Nelson, MD, PC, in Hoquiam, Wash. **Michael P. Richardson Geol E** is senior mining engineer for metals and industrial metals for John T. Boyd Company in Denver.

## 1971

**Carlos E. Mateus BSc Pet** is an operations consultant for Endeavor International Corporation in Houston.

**E. Thomas Rupert BSc Phy** is a certified financial planning professional and a member of the Financial Planning Association and is senior vice president for George K. Baum & Company in Denver.

**Collin L. Stewart BSc Geol, MSc Min '78** is manager of technical services for Bowie Resources LLC in Paonia, Colo.

## 1972

**J. Leif Colson BSc Phy** is retired in Conifer, Colo.

## 1974

**Richard G. LaPrairie BSc Min** is a civil/geotechnical engineering consultant for LMI Engineering LLC in Reno, Nev.

**Russell J. Miller PhD Min** is president of Vision Underground Inc. in Golden, Colo.

**Hector Ramos BSc Met, MSc Met '77, MSc Min Ec '83** owns Creative Home Group in Miami.

## 1975

**A. Charles Anderson BSc CPR, MSc Min Ec '77** is manager of oil and gas marketing for Forest Oil Corporation in Denver.

**Kay L. Lee BSc Phy** is retired in Arvada, Colo.

**James V. McCune BSc CPR** is senior supervising process engineer for WorleyParsons in Arcadia, Calif.

**James V. Taranik PhD Geol** is director of the Mackay School of Earth Sciences and Engineering at University of Nevada, Reno.

## 1978

**James C. Atkinson BSc BE** is principal for Lund Partnership in Castle Rock, Colo.

**John H. Benton BSc Pet, MSc Pet '84** is asset manager for Whitting Petroleum Corporation in Denver.

**Brian R. Frost BSc Geop** is new ventures manager of international deepwater exploration for Anadarko International Energy in The Woodlands, Texas.

## 1979

**Neal E. Fausset MSc Geop** is hardware documentation manager for McData Corporation in Broomfield, Colo.

**Michael J. Harstad BSc BE** is preconstruction services vice president for The Weitz Company Inc. in West Palm Beach, Fla.

**Douglas K. Maxwell BSc Met, M Eng Met '82** is a mineral processing engineer for Lyntek Inc. in Arvada, Colo.

## 1980

**Michael J. Bogenreif BSc Min** is plant manager for the Ball Corporation in Torrance, Calif.

**Donald J. Carpenter MSc Geochem** is vice president for Earth Tech Inc. in Oak Brook, Ill.

**Roger A. Hooten BSc Geol** is senior IT implementation project manager for Kaiser-Permanente California in San Francisco.

**Jay E. Johnson BSc CPR** is president of Encore Operating Company in Denver.

**Philip O. Johnson BSc Pet** is senior production operations consultant for Oxy at Elk Hills in Tupman, Calif.

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**Timothy E. Lien BSc CPR** is engineering adviser to Oxy Peruvian.

**Jacqueline R. McCorkindale BSc CPR** is a mathematics teacher in Katy, Texas.

**Kim M. Titus BSc BE** is deputy area manager of the Columbia River Gorge National Scenic Area for the U.S. Forest Service in Hood River, Ore.

**1981**

**Colin C. Nisbeth BSc CPR** is president of Angel Housing Partners LLC in Colorado Springs, Colo.

**David B. Patterson BSc Geol** is a geoscientist for Davis Petroleum Corporation in Houston.

**1982**

**Kamal A. Sandarusi BSc Geop** is a consulting geophysicist for Unocal Corporation in Sugar Land, Texas.

**1983**

**Lance Hardesty BSc Min** was appointed an owner of R.W. Beck



Inc. in recognition of his contributions to the company.

**David B. Jensen BSc Pet** is chief operating officer for Genesis Gas and Oil LLC in Kansas City, Mo.

**Dennis A. Lobmeyer BSc CPR** is a senior engineer for ASRC Aerospace at Kennedy Space Center, Fla.

**1984**

**Darren L. Brown BSc Geol** is a senior scientist for Camp Dresser & McKee Inc. in Wichita, Kan.

**Fred A. Kruse Jr. MSc Geol, PhD Geol '87** is principal scientist for Horizon GeoImaging LLC in Frisco, Colo.

**Daniel S. Meendering BSc Met** is manager for Precision Comonets International in Columbus, Ga.

**Robert M. Sterner BSc Min** is a project engineer for Drummond Company Inc. in Jasper, Ala.

**1985**

**Darren E. Hadley BSc Math** is an architect for Raytheon Space Systems in Centennial, Colo.

**Daniel C. Johnson BSc Geop** heads the palliative care department for Kaiser Permanente in the Denver region.

**Karl A. Rydjord BSc CPR** is a pipeline compliance manager for Duke Energy Field Services in Englewood, Colo.

**Marvin B. Smith PhD Min Ec** is retired in Black Hawk, Colo.

**Tad M. Wheeler BSc Eng** is president of Tenderdyn Arts, and has just completed *Last of the Romantics* starring Chris Bruno, Brittany Daniel and Ted Lange. Wheeler was responsible for production design and film editing.

**1986**

**Robert K. Anzick BSc CPR, MSc CPR '88** married Stacy Pever July 16, 2004 in Houston.

**Atif R. Khan MSc Min Ec** is president and chief executive officer for LMK Resources in Islamabad, Pakistan.

**Joseph P. Mahoney BSc CPR** is a general partner of Just in Case Business Lighthouse in Highlands Ranch, Colo.

**Jeffrey A. Osborn BSc Min** is a project manager for R.E. Monks Construction in Castle Rock, Colo.

**Lewis T. Putman Jr. BSc Geol** is a partner at Milbank, Tweed, Hadley & McCloy LLP and heads the group's environmental law practice in Chicago.

**Duncan W. Riley Jr. BSc Geop** earned an MBA from Rice University in Houston.

**Jeffrey G. Sanders BSc Pet, M Eng Pet '05** is a reservoir engineer

for Kerr-McGee Rocky Mountain Corp. in Denver.

**J. Brian Weingardt BSc CPR** is Gulf of Mexico facilities engineering manager for ExxonMobil in Houston.

**1987**

**Gordon L. Fellows BSc Min** is chief mining engineer of the Bulyanhulu Mine in Tanzania.

**Mitzi A. Leaver BSc Geol** is a geologic technician for Ellora Energy in Boulder, Colo.

**Paul J. Taylor BSc Pet** is a technical consultant for BP in Houston.

**Vivek Chandra BSc Geop** is chief strategy officer for Dubai Energy in Dubai, UAE.

**1988**

**Gregory S. Palinckx BSc Geop** is systems engineering director for Network Appliance in Englewood, Colo.

**1989**

**Tony W. Church MSc Min Ec** is managing director for FIML Natural Resources LLC in Denver.

**Jordan M. Fox BSc CPR** is director and shareholder for Cage Williams Abelman & Layden PC in Denver.

**M. Terry Fox BSc CPR** is assistant U.S. attorney for the district of Colorado in Denver.

**Michael S. Lichtwardt BSc Eng** is global supply chain manager for Cytec Engineered Materials in Havre de Grace, Md.

**Arthur T. Willden BSc Eng, MSc Appl Mech '91** is vice president of MFG Inc. in Fort Collins, Colo.

**1991**

**Herman P. Alendy MSc Min Ec, M Eng Min '92** is special projects manager for Suralco LLC in Paramaribo, Suriname.

**Bryan Mortimer BSc Min** is general mine superintendent for Solvay Chemicals in Green River, Wyo.

**Katherine A. Romine BSc Chem, BSc CPR** is a process development engineer for Chromadex Analytics in Boulder, Colo.

**1992**

**Randy J. Dorian M Eng Geol** is information services director for Tetra Tech Inc. in Denver.

**Scott R. Werner BSc Eng** is process engineering group lead for Intel Corporation in Colorado Springs, Colo.

**Anna M. Young BSc Pet** is a reservoir engineer for Cimarex Energy in Denver.

**1993**

**Jeffrey S. Brown BSc Phy, BSc Math** is a petroleum engineer for Anadarko Petroleum Corporation in The Woodlands, Texas.

**1994**

**Gregory E. Kushnir BSc Math** is assistant vice president for Alea Alternative Risk in Rocky Hill, Conn.

**Koon Eiong Tan BSc Min, MSc Min Ec '97** is a senior trader at Sincor in Caracas, Venezuela.

**1995**

**Suzanne B. Berman MSc Env Sc** is environmental services manager for JetBlue Airways in Forest Hills, N.Y.

**Kevin D. Creel BSc Geol** is senior underground geologist at Cortez Gold Mines in Crescent Valley, Nev.

**Matthew B. Hayes BSc CPR, P.E.**, is a project engineer for Castle Rock, Colo.

**Clinton L. Koenen BSc Pet** is vice president for Stim-Tech in Pinedale, Wyo.

**Austina C. Matthias BSc Eng** is distribution designer for Centerpoint Energy in Houston.

**Dong-Hoon Min Msc Phy, PhD Appl Phy '05** is chief technical officer for MEMS DNS Tech in Seoul, South Korea.

**Sundance Rogers BSc CPR** is mechanical engineering manager for high purity systems at U.S. Filter in Colorado Springs, Colo.

**Elise L. Sherva MSc Env Sc** is planning chief for Buckley Air Force Base in Colorado.

**Roger W. Wingate BSc Eng** is a project manager for Lowery Redevelopment Authority in Denver.

**1996**

**Eric J. Bengtson BSc CPR** is a project manager for Rooney Engineering in Centennial, Colo.

**Montgomery P. Blair BSc Econ, MSc Min Ec '97** is assistant vice president for Archstone-Smith in Englewood, Colo.

**Leslie K. Creel BSc Geol** is a geologist for GeoAssist in Elko, Nev.  
**Matthew D. Holecek BSc Eng** is business development analyst for Sunoco Logistics Partners LP in Nederland, Texas.

**Ilya Kats BSc Eng** is program manager for Freescale Semiconductor Inc. in Austin, Texas.

**Catherine L. Kling MSc Min Ec** is business development manager for Shell Wind Energy in Houston.

**C. Jason Pinto BSc Pet** is a senior drilling and completion engineer for Apache China in Beijing. He married last July.

**1997**

**Lewis M. French IV BSc CPR** is an associate broker for The Watson Insurance & Financial Group in Montrose, Colo.

**Christopher M. Gilbert BSc Eng** is project manager for R.G. Miller Engineers in Houston.

**Christoph M. Goss BSc Eng, PhD Min '00** is a tunnel engineer for Deere & Ault Consultants of Longmont, Colo.

**Patrick B. Kelley BSc CPR, M Eng Met '05** is president of National Testing and Consulting in Arvada, Colo.

**Michael S. Melzer BSc Eng** is a consultant and service manager for

Global Shop Solutions in The Woodlands, Texas.

**Matthew T. Sarles BSc Eng** is an attorney with Townsend and Townsend and Crew in Denver.

**Sarah J. Wingate BSc Chem** is senior engineering planner for Lockheed Martin in Parker, Colo.

**1998**

**Ashton L. Hargrave MSc Min Ec** is a forestry technician for the U.S. Forest Service in Leadville, Colo.

**Kevin J. Kidd BSc Min** is senior resident engineer for Bechtel National in Richland, Wash.

**Anthony R. Manerbino BSc Met, MSc Met & Mat Eng '05** is a research scientist for Guigne International in Denver.

**Toby M. Padilla BSc Eng, MSc Engr Sys '01, PhD Engr Sys '05** is a test/research engineer for Identification Technology Group in Denver.

**Paul A. Renouf BSc Pet** is a reservoir engineer for Questa Engineering in Golden, Colo.

**Robert M. Schulz MSc Pet** is manager of investment appraisal for ConocoPhillips China Inc. in Beijing.

**Lisa Kerschner Schwien BSc Eng**, a design engineer with Meurer

& Associates of Lakewood, Colo., recently became a Colorado Professional Engineer.

**Russ Thomas BSc CPR** married Elena A. Demina in Bakersfield, Calif., July 10.



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**1999**

**Michael R. Dearing BSc CPR** is engineering manager for MRW Technologies in Tulsa, Okla.

**Jessica Gonzales BSc CPR** married Tim Nesvold May 14 in Colorado Springs.

**Matthew M. Haney BSc Geop, PhD Geop '05** is a researcher at Sandia National Laboratories in New Mexico.

**Jacob M. Hoban BSc Eng** is a design engineer for V3 Companies in Brighton, Colo.

**Samuel B. Johnson BSc Eng, MSc Engr Sys '01, PhD Engr Sys '05** is a research assistant at University of California, Davis.

**Brian A. McCaig BSc CPR** is a project engineer for Albert Half Associates in Austin, Texas.

**Jessica D. Nesvold BSc CPR** is a project engineer for Colorado Springs, Colo., Utilities.

**Douglas J. Turner BSc CPR, MSc CPR '03, PhD Chem Eng '05** is a flow assurance engineer for Exxon Mobile in Houston.

**Richard A. Williams BSc CPR** is pastor of the Fourth Presbyterian Church in Chicago.

**2000**

**James M. Beideman BSc Geol** is a project engineer for Schnabel Engineering Inc. in West Chester, Pa.

**Kim D. Blair BSc Eng** is vice president of the Colorado Engineering Council in Denver.

**Katherine E. Gilbert MSc CPR, PhD Chem Eng '05** is doing post-doctoral work at the National Renewable Energy Laboratory in Golden, Colo.

**John R. Gregg BSc Geol, BSc Econ** is continuous improvement leader and six sigma black belt for Bank of America in Farmington, Conn.

**Josephine R. Hernandez BSc Eng** is a financial services professional for John Hancock Financial Network in Centennial, Colo.

**Derick Ofori-Kuragu BSc Min, MSc Eng & Tech Mgmt '02, MSc Min Ec '04** is an industrial engineer for United Parcel Service of America in Denver.



**Nickolus BSc Met & Mat Eng and Skye BSc Chem Eng '02 Pigott** announce the birth of their first child, Audrey Irene, born April 30.

**Eric J. Robertson BSc Eng** is a staff engineer for Idaho National Laboratory.

**Sara Williams BSc Eng** married Brian Atkins May 29. The couple



resides in Houston where Sara is a quality engineer with Alcon.

**2001**

**Matthew J. Cannon BSc Met & Mat Eng** is a captain in the U.S. Army with the 10th Mountain (Light Infantry) at Fort Drum, N.Y.

**Christopher Cody Duran BSc Chem Eng** is an account representative for Halliburton Energy Services in Denver.

**Jeremy K. Lee BSc Eng** is an engineer intern for Carter & Burgess Inc. in Denver.

**Dawn M. Paling BSc Eng** is a structural engineer for SDG Inc. in Englewood, Colo.



**Jody L. Trantham BSc Eng** married Adrienne Chevoor March 12 in Houston. Jody is a senior

project engineer with ExxonMobil Corp.

**Joshua J. Viets BSc Pet** married Cassie Taylor in Lubbock, Texas, January 2004. Joshua is a reservoir engineer with ConocoPhillips in Houston

**2002**

**Kai Binkley BSc Pet** married John Sims Sept. 18 in Fairbanks, Alaska. Kai is a petroleum engineer with BP.

**Thomas Joseph Dooley BSc Eng** is a financial representative for Northwestern Mutual Financial Network in Clayton, Mo.

**William Michael Drake BSc Met & Mat Eng, MSc Met & Mat Eng '05** is a technical staff member at Los Alamos National Laboratory in New Mexico.

**Nathan R. Dutzmann BSc Math & Comp Sci** is an associate for Princeton Consultants in Plainsboro, N.J.

**Bryan T. Finn BSc Math & Comp Sci** is a senior software engineer for IPS Meteorstar Inc. in Aurora, Colo.

**Jon B. Froderberg BSc Eng** is a pharmaceutical engineer for Hollister-Stier Laboratories LLC in Spokane, Wash.

**Christopher R. Hammitt BSc Eng, BSc Econ, MSc Eng & Tech Mgmt '05** is a systems implementer for Fast Enterprises in Golden, Colo.

**Jason R. Ivanic BSc Chem Eng, MSc Chem Eng '05** is a project engineer at University of Tulsa, Oklahoma.

**Kyle G. Korn BSc Math & Comp Sci, MSc Eng & Tech Mgmt '05** is a software engineer for Northrop Grumman in Aurora, Colo.

**Xinwei Luo M Eng Engr Sys, MSc Math & Comp Sci '04** is a

programmer for Avanade in Lakewood, Colo.

**Joseph N. Matterson BSc Met & Mat Eng, MSc Met & Mat Eng '05** is a process engineer for Intel.

**Eduardo J. Morillo MSc Min Ec** is a cost accountant for Flowsolve in Maracaibo, Venezuela.

**Jack M. Pecoraro BSc Chem Eng, BSc Econ** is a project engineer for American Energy Assets in Denver.

**Magaly C. Quintero A. MSc Geol** works in reservoir exploration and characterization for PDVSA Intevep in Los Teques, Venezuela.



**Jack Sayers BSc Phy, BSc Math** married Lindsey Ozark BSc Eng May 21 in Castle Rock, Colo.

**Sarah E. Shearer BSc Geop, MSc Geop '05** is a geophysicist for Ultra Petroleum in Thornton, Colo.

**Benjamin M. Upsall BSc Geol** is senior staff geotechnical engineer for Hart Crowser Inc. in Seattle, Wash.

**Claudio A. Valencia MSc Min Ec, PhD Min Ec '05** is a research and project analyst for Comision Chilena del Cobre in Santiago, Chile.

**2003**

**Jessica J. Ayers BSc Eng, MSc Env Sc '05** is an engineering intern for Stanley Consultants in Denver.

**Matthew C. Balzer BSc Chem Eng** is a mail center specialist for MMS WEST in Denver.

**Janelle M. Bohn BSc Chem Eng** is an associate engineer for Parsons Corporation in Pasadena, Calif.

**Travis J. Fletcher BSc Eng** is land development field superintendent for Shea Homes in Highlands Ranch, Colo.

**Stephanie Marek Johnson BSc Chem Eng** is in the operations

leadership program at Lockheed Martin Missiles and Fire Control in Dallas.

**Olivia Harren BSc BSc Pet, M Eng Pet '05 and Forest Bommarito BSc BSc Pet, M Eng Pet '05** were married June 18. The couple resides in Anchorage, Alaska, where Olivia is a



production engineer for BP and Forest is a reservoir engineer for ConocoPhillips.

**Derek M. Kleehammer BSc Chem Eng, MSc Chem Eng '05** is a production engineer for BP Exploration (Alaska) in Anchorage.

**Michelle Kucharyson BSc Eng** married Tommy Probasco June 4 in Littleton, Colo.

**Sarah J. Ladenburger BSc Eng, MSc Env Sc '05** is a design engineer for Richard P. Arber & Associates in Denver.

**Christopher L. Landon BSc Eng** is a mechanical engineer for Cineflex LLC in Grass Valley, Calif.

**Giancarlo G. Leone BSc Phy, MSc Eng & Tech Mgmt '05** is an engineer for Stanley Consultants in Westminster, Colo.

**Robyn C. Logan BSc Geol** is a project engineer for Frachetti Engineering in Denver.

**Stephanie Marek BSc Chem Eng** married Alan Johnson June 4 in



Dallas, Texas. Both work for Lockheed Martin Missiles and Fire Control.

**Jessica L. Marlow MSc Env Sc** is an environmental engineer for CDM in Phoenix.

**Jon M. Martinez BSc Eng** is an engineer-in-training for David Evans and Associates in Phoenix.

**Sofia Olivas BSc Met & Mat Eng** is a quality assurance supervisor for Industrial Wire Products in Walnut, Calif.

**Brent J. Pounds BSc Eng** is a navigation officer on the National Oceanographic & Atmospheric Administration ship Rainer.

**John K. Reinsma MSc Min Ec** is a consultant for Accenture in Denver.

**Jonathan A. Roberts BSc Geop** is a field engineer for Schlumberger Well Services in Tyler, Texas.

**Elfije Salihu MSc Min Ec** married Rafael Lemaitre June 14. She is a consultant with Accenture LLP in Washington, D.C.

**Benjamin D. Scheuer BSc Eng, MSc Eng & Tech Mgmt '05** works in design at Keymark in Superior, Colo.

**Ryan D. Stephen BSc Eng, MSc Eng & Tech Mgmt '05** is a mechanical engineer for the Bureau of Reclamation in Lakewood, Colo.

**2004**

**Theodore H. Archuleta BSc Math & Comp Sci, MSc Math & Comp Sci '05** is a software engineer for Lockheed Martin in Walsenburg, Colo.

**Wade M. Binkley BSc Pet** is an operations manager for Alaska Riverways Inc. in Fairbanks.

**Jessica L. Cavens Pro MSc Pet Reservoir Sys** is a geologist for Yates Petroleum in Denver.

**Gerard R. Clayton BSc Phy, MSc Egr Sys '05** is a systems engineer for Lockheed Martin in Aurora, Colo.

**Lee F. Fanyo BSc Eng, MSc Eng & Tech Mgmt '05** is a systems engineer for Lockheed Martin in Arvada, Colo.

**Cassandra M. Fry BSc Chem Eng, MSc Eng & Tech Mgmt '05** is a risk and reliability engineer for ARES Corporation in Littleton, Colo.

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Tyler P. Hunter BSc Chem Eng, MSc Eng & Tech Mgmt '05 is a brewing group manager for Anheuser-Busch in Fairfield, Calif.

Trisha A. Malberg BSc Eng is an engineer trainee for the Veterans Health Administration in Cheyenne, Wyo.

Aspen L. Obering BSc Chem Eng, MSc Eng & Tech Mgmt '05 is an engineer with the Forerunner Corporation in Lakewood, Colo.

Robert L. Parkin BSc Eng, MSc Eng & Tech Mgmt '05 is an engineer for Milender White Construction in Golden, Colo.

Suzanne L. Pearson BSc Econ is a supply chain analyst for Shell Lubricants in Houston.

Shirley Ribera-Farell BSc Pet is a reservoir tech for Forest Oil Corporation in Denver.

Jonathan R. Schmidt BSc Eng is a product engineer for Hughes Christensen in The Woodlands, Texas.

Jennifer Grahmann Tromble BSc Met & Mat Eng is plant metallurgist for Wolverine Tube Inc. in Norman, Okla.

Jenette A. Tveitmo BSc Chem Eng is a chemical process engineer for Unircircuit Inc. in Littleton, Colo.

Scott A. Unger BSc Met & Mat Eng is an engineer for the Weyerhaeuser Company in Springfield, Ore.

Pajau Vangay BSc Math & Comp Sci, MSc Math & Comp Sci '05 is a software engineer for Agilent Technologies in Westminster, Colo.

Graham P. Vleck BSc Eng is an application engineering manager for In-Position Technology in Lakewood, Colo.

Christopher L. Wolvin BSc Eng is a project manager for BNP Associates in Denver.

**2005**  
Christopher M. Aasted BSc Eng is a research assistant at University of Denver.

H. Ali Al Nasser BSc Eng is a senior electronics specialist for Saudi Aramco in Dhahran, Saudi Arabia.

Eric M. Alderman BSc Eng is a combat systems engineer for the Puget Sound Naval Shipyard.

Joel W. Bebo BSc Eng is a rig engineer for Transocean in Golden, Colo.

DeaZhan K. Begaye BSc Eng is a field engineer for Schlumberger in Farmington, N.M.

Earl D. Benson BSc Eng is a design engineer for ATK Thiokol in Promontory, Utah.

David M. Bergman BSc Eng is an associate engineer for Gambro BCT in Golden, Colo.

Glen S. Bigelow BSc Met & Mat Eng, BSc Eng works for the NASA Glenn Research Center in Durango, Colo.

Brian J. Blaskovich BSc Chem Eng works for Air Liquide in Littleton, Colo.

Kristin E. Bowler BSc Chem Eng is a procurement quality engineer for ATK Thiokol in North Ogden, Utah.

Michael W. Breon BSc Phy is a technical specialist for Lockheed Martin in Colorado Springs, Colo.

Steven K. Brier BSc Math & Comp Sci is a system engineer for Northrop Grumman in Colorado Springs, Colo.

Salman K. Bubshait BSc Geop works for Saudi Aramco in Dammam.

Benjamin R. Budin BSc Eng is a design engineer for ATK Thiokol in Sterling, Colo.

Krista L. Burke BSc Min is an associate engineer for Kennecott Energy in Arvada, Colo.

Jennifer A. Bush MSc Env Sc is staff geologist and engineer for Aegis Environmental in Bloomington, Ind.

Ryan P. Cadenhead BSc Pet is an engineer for Occidental Oil and Gas in Long Beach, Calif.

Cristin M. Cammon BSc Eng is a production engineer for BP in Houston.

Stacy L. Carrera PhD Mat Sc works for Pioneer Astronautics in Golden, Colo.

Timothy W. Casias BSc Met & Mat Eng works for University of Colorado Health Science Center.

John C. Chakalis BSc Geop is a geophysicist for Devon Energy in Katy, Texas.

Levi J. David BSc Eng is an engineering intern at Band-It IDEX Corporation in Westminster, Colo.

Pawan Dewangan PhD Geop is a scientist for the National Institute of Oceanography in Chhattisgarh, India.

Peter E. DeWitt BSc Math & Comp Sci is a physical science technician for U.S. Geological Survey in Lakewood, Colo.

Kimberly H. Doupe MSc Geol is a geologist for Newfield Exploration in Houston.

Melissa S. Engbarth BSc Econ is an account underwriter trainee for St. Paul Travelers in Denver.

Anthony D. Febraro BSc Chem Eng works for Schlumberger in Lafayette, La.

Andrea C. Fleming BSc Eng is with the USGS in Golden, Colo.

Matthew M. Gallagher BSc Pet is an operations engineer for Pioneer Natural Resources in Dallas.

Adrienne M. Gander BSc Chem Eng is a quality engineer for ATK-Thiokol in Littleton, Colo.

Thomas B. Getz III BSc Eng is a second lieutenant in the U.S. Air Force in Colorado Springs, Colo.

Matthew C. Gilbreath BSc Eng is a staff engineer for CVL Consultants in Golden, Colo.

Brian D. Glater BSc Pet is a petroleum engineer for Kerr-McGee in Spring, Texas.

Mark A. Goldstein MSc Env Sc is a researcher at National Jewish Research Center in Denver.

James A. Herlyck BSc Eng is a design engineer for J.R. Engineering in Greenwood Village, Colo.

Steven P. Hoppe M Eng Pet is a reservoir engineer for Tiora Geosciences in Littleton, Colo.

Candra H. Janova BSc Pet is a reservoir engineer for the Occidental Petroleum in Long Beach, Calif.

Peter L. Jenson BSc Eng is a design engineer for Northrop Grumman in Golden, Colo.

Geoffrey N. Johnson BSc Eng is in the U.S. Navy in Longmont, Colo.

Kyle M. Johnson BSc Phy is a systems engineer for Northrop Grumman in Littleton, Colo.

Elizabeth A. Kennedy BSc Econ is an IT consultant for CSG Systems in Englewood, Colo.

Christopher A. Kintz BSc Eng is an assistant superintendent for Keller Homes in Colorado Springs, Colo.

Matthew R. Kraxberger BSc Eng is a reliability engineer for ExxonMobil in Fort Collins, Colo.

Amy M. Kurtz BSc Eng works for Olsson Associates in Lakewood, Colo.

Kelly C. Lambert BSc Met & Mat Eng is a junior metallurgist for Climax Molybdenum Company in Elizabeth, Colo.

Ashley R. Lantz BSc Pet is a reservoir engineer for Encana Oil and Gas USA in Englewood, Colo.

Kevin T. Lasswell BSc Chem Eng is an instructor for the U.S. Navy in Goose Creek, S.C.

Laura A. Lenahan BSc Chem Eng is a process engineer for Chevron in Richmond, Calif.

Jie Qing Li BSc Chem Eng is a process engineer for ExxonMobil in Grand Junction, Colo.

Amber L. Livingston BSc Eng is an engineer-in-training for Maran Engineering in Woodland Park, Colo.

Heather A. Lowers MSc Geochem is a geologist for the U.S. Geological Survey in Golden, Colo.

Lindsay M. Maddox BSc Pet is an operations engineer for KinderMorgan CO2 in Midland, Texas.

Michael A. Martinez MSc Min Ec is a captain and a scientific analyst for the U.S. Air Force.

Kelly J. Mattie BSc Eng is a U.S. Air Force lieutenant in Racine, Wis.

Katherine A. May BSc Met & Mat Eng works for ChevronTexaco in Houston.

Bonnie S. McCoy BSc Phy is a systems engineer for Lockheed Martin Space Systems in Franktown, Colo.

Nathan R. Meister BSc Eng is an associate engineer for Ball Aerospace in Aurora, Colo.

Christopher W. Mielke BSc Eng is a design engineer for Nelson Engineering Inc. in Loveland, Colo.

Ryan D. Miller BSc Math & Comp Sci is a software engineer for Northrop Grumman in Grand Junction, Colo.

Ryan J. Miller BSc Eng is a field engineer for Schlumberger in Grand Junction, Colo.

Jared M. Mintz BSc Eng is an estimator for Milender White Construction in Arvada, Colo.

Lindsey E. Mitton BSc Pet is an engineer for BP in Grand Junction, Colo.

Andrew M. Montano MSc Env Sc is an aquatic biologist for the Bureau of Reclamation in Denver.

Elena Moreno-Barbero PhD Env Sc is an environmental engineer for Arcadis in Morrison, Colo.

Rebekah R. Mullen BSc Math & Comp Sci, BSc Econ is a database administrator for FIML Natural Resources in Lakewood, Colo.

Adrienne L. Nemanic BSc Eng is an engineer for the URS Corporation in Houston.

Marie K.T. Nguyen BSc Chem Eng is a process engineer for Shell Oil in Houston.

Jessica L. Olson BSc Eng is a management associates trainee for

Vulcan Materials Company in Lombard, Ill.

Naomi E. Ott BSc Chem Eng is an operation support engineer for Shell Oil in Fort Collins, Colo.

Myung-Jae Park MSc Min is a manager for Korea Resources Corporation in Seoul.

Ethan S. Paterno MSc Min Ec is an analyst consultant for PA Consulting in Golden, Colo.

Crystal E. Peden BSc Eng is an engineer for M.A. Mortenson in Colorado Springs, Colo.

Mitesh B. Pradhan BSc Math & Comp Sci is a software embedded systems engineer for Lockheed Martin Space Systems in Littleton, Colo.

Jon C. Rees PhD Appl Chem is a scientist for MicroPhage in Longmont, Colo.

Ross M. Rhinehart BSc Econ is an IRES sales trainee for Ingersoll-Rand in Columbia, Md.

Ryan M. Riener BSc Eng works for Kiewit in Boise, Idaho.

Joshua R. Root BSc Eng is an engineer for Meyer Civil Engineering in Golden, Colo.

Justin C. Sandifer BSc Pet is an engineer for Western Gas Resources in Lakewood, Colo.

Joan L. Schindler MSc Geol is a geologist for The Strickland Group in Benbrook, Texas.

Paul C. Schwering BSc Geop is a geophysical engineer for Olson Engineering in Golden, Colo.

Christopher L. Scott BSc Eng is a sales person for Coraccess in Golden, Colo.

Andrew P. Sedlmayr BSc Math & Comp Sci, BSc Eng is a design engineer for Invocon in Houston.

Almed Sejati BSc Eng is a land development engineer for McIntosh & Associates in Madison Heights, Mich.

Dalton H. Shaffer BSc Eng is an electrical engineer for Washington Group International in Walsh, Colo.

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# Delbert F. Tolen – Leader and Warrior

I first met **Del Tolbert PRE '57** in Korea sometime early 1953. He was assigned to Company A, 5th Infantry Regiment, 5th Regimental Combat Team. I, too, was a member of Company A. Being a young second lieutenant, Del was given the job to lead the Third Platoon.

My initial impression of Del was that he had unusual leadership qualities. Also, he seemed to have the qualities of a warrior. The men in his platoon immediately liked him and followed his instructions. He had a sense of humor that broke through during the worst of times and never, to my knowledge, showed any signs of weakness under fire.

I had been the executive officer of Company A when Del joined the company and when I was promoted to company commander, I promoted Del into my former job. That turned out to be one of the best decisions I ever made. Our defense of "Outpost Harry" will explain why.

On June 12 and 13, 1953, Company A, with attachments, was ordered to defend a combat outpost known as Harry. We were ordered to hold this hill at all costs. Harry was too small to allow all four platoons to be placed in a defensive position. Therefore, Del was ordered to keep one platoon of approximately 40 men at the bottom of the hill and be

prepared to counterattack if we were overrun by the Chinese communist forces.

The Chinese attacked the hill in waves with 3,600 soldiers. Tremendous artillery bombardment hit the hill for hours on end. The Chinese overran our position, so I called Del for help. Without hesitation, he led his counterattacking force up the trenches, engaged in hand-to-hand combat and destroyed the enemy. There is no question in my mind that Del's leadership, valor and courage stopped the Chinese. He saved my life and allowed us to hold Harry.

After Korea, it was many years before I got to see Del again. When I did, the spark was still in his eyes, his bearing still strong. In fact, at our last reunion in San Diego, a member came up to me and stated, "That Tolen fellow would be someone I could follow into battle. He acts like a leader." I explained that his observation was correct.

I regret that it took so many years for us old combat soldiers to get together. I am honored to have served with Del Tolen. He exhibited the essence of being an infantryman.

Delbert F. Tolen 1930-2004 – Combat Infantry Leader, Combat Infantry Warrior, Good Friend.

*By Jim Evans*



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Marsha Williams

Aargh! Who are these pirates storming into downtown Golden on a cardboard ship? They're Mines students, celebrating homecoming during the traditional parade down Washington Avenue in October. This year's theme was "Yo Ho, Yo Ho! A Miner's Life for Me!"

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