The Amazing "M" page 6
Alumnus is U.S. Senior Oil Adviser in Iraq page 14
Building Friendships in China page 24
CSM and CSMAA Sign Joint Operating Agreement

Representatives of CSM and the Alumni Association signed the Alumni Association affiliation agreement Dec. 11, 2003. Below are excerpts from remarks made at the signing ceremony by John Schwartzberg BSc Met ’88, CSMAA president, and a response to the historic occasion from John Trefny, CSM president.

“On behalf of the Alumni Association, I am pleased and proud to be here to join our new partners in alumni relations at Colorado School of Mines.

For those of you involved in the process of reaching this agreement, today’s ceremony may seem like an accomplishment. And while it is, it is really more of a new beginning. Many people have spent countless hours working behind the scenes to arrive at this agreement and for that I offer my most heartfelt gratitude.

But perhaps the most difficult work lies ahead as we strive to make this vision a reality. What we have here, in engineering lexicon, is a conceptual design. What lies ahead is a challenging concurrent design-and-build project. We’ll design the details while we implement Mines’ new alumni relations programs. This agreement gives us a fine base upon which to build. It is up to us as individuals, as organizations, and now as partners to provide the human element to make it work.

We hope today’s signing is the first of many milestones. This is a project without a completion date. It is something we expect will evolve over time as we all work for the success of Mines.”

John Schwartzberg, CSMAA President

“This institution owes a large debt to the many individuals who worked to bring about this agreement. While much still needs to be done, I believe we have set the stage for strengthening not only the School’s relationship with its alumni but also the School itself.

We have long recognized that many of Mines’ inherent strengths are related to connections. These take many forms, including the connections among faculty, staff and students; the connections we foster between academics and student-life activities; connections among the academic disciplines in pursuit of solutions to interdisciplinary problems; and connections with numerous partners from industry, governments and other academic institutions.

Among the most critical connections are those we maintain with our alumni. The special quality of Mines is imbedded in its people—those who are here now as well as those who have gone before them. Our reputation depends on the success of our alumni and the extent to which that success identifiably derives from their Mines experience. Close connections between the School and each of its alumni can be of significant benefit to both. I am hopeful that the affiliation agreement will lead to stronger ties, better services and enhanced pride among the entire Mines family.”

John Trefny, CSM President
Building Friendships in China
CSM strengthens academic and industry ties

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$1 Million Gift Honors Former Mines Professors
Jim ‘59 and Arlene Payne Endow Three Scholarships
for Hollister, Keating and Meredith

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For the past 70 years the renowned "M," a symbol of Mines pride and one of the largest mountainside monuments in the nation, has shown brightly in the night atop Mt. Zion. Never unlit for more than 24 hours, the "M" is maintained by Blue Key members who have long battled the elements to keep this record. Traditionally these keepers of the "M" have also changed the lights each holiday season and special occasion.

In the past when Blue Key members wanted to switch automation from one program to the next, they had to manually enter the commands from the controls at the base of the "M." As of April 2003, thanks to the efforts of a Senior Design foursome called the "M-posters," Blue Key can animate the "M" not only from their office in the Student Center, but from anywhere in the world.

The fully computer-automated and remote-controlled emblem started out as a solo project by Jordan Wiens BSc Eng ’03, then a senior engineering student, to clean up and organize the controls of the "M." As an active student government participant with experience as an electrician, he had assumed the role of maintaining the "M" because of his knowledge of wiring. However, the incomprehensible mess of wires that kept Albert Clark, Jordan Wiens, Britta Eustice, Chris Mnich, the M-posters the "M" lit during the last century and a half were starting to spark and sizzle threateningly, and Wiens said he had had enough!

So he designed a completely new electrical system. He presented the project to Rockwell Automation as a community service project for the School and Rockwell gave full funding for the electrical automation, donating almost $8,000 worth of software and hardware equipment. Then Wiens presented his project to the Engineering Division. Subsequently approved for credit, it became a Senior Design project, and a team was assigned to rework, reinstall and revamp the beloved "M."

Wiens, Britta Eustice, Albert Clark and Chris Mnich worked for eight months completing the "M"—and never once was the emblem turned off during the night. Now the "M" has 40 preprogrammed sequences and can display chasing lights, color sequences, holiday shapes and more. In addition to contributions from Rockwell Automation, Data-Linc Corp. donated radio modems for the remote control of the "M," and Ross Electric provided wire, panel boards and support throughout the duration of the project. Upon graduation, the "M-posters" turned the duty of maintaining the "M" back over to Blue Key.

From a mess of wires...to a sleek new system
Wulf Keynotes Midyear Commencement

President of the National Academy of Engineering William A. Wulf was the keynote speaker at midyear commencement ceremonies Dec. 12 when more than 250 degrees— including bachelor’s, master’s, doctoral and professional degrees—were awarded.

Dr. Wulf, who has also served as assistant director of the National Science Foundation, began and ended his address saying, “Welcome to the engineering profession. Great choice!” He reminded graduates and families of the profound impact engineering has made on the quality of life in the developed world.

“Engineering is the way to improve people’s lives than in any other profession,” he said.

Wulf was presented with an honorary degree, as was Dr. Richard A. Tapia, the Noah Harding Professor of Computational and Applied Mathematics at Rice University, where he is also associate director of graduate studies and director of the Center for Excellence in Equity in Education.

Mines Medals for exemplary service to the School were presented to John Hogan, professor emeritus in the CSM Division of Liberal Arts and International Studies; Marvin Kay, EM ’83, athletics director and head of the CSM Physical Education and Athletics Department; and Bryan K. Lee BSc Geol ’85 and Kathryn R. Lee BSc Math ’88, owners of The Collector’s Edge Minerals, Inc.

Eberhart Writes “Why Things Break

Why Things Break: Understanding the World by the Way It Comes Apart by Mark Eberhart, an associate professor of chemistry and geochmistry at CSM, was published by Harmony Books in October. Eberhart was approached to write the book after publishing an article with a similar title in Scientific American magazine.

Eberhart explains, “Throughout history, from the breaking of the first stone to make a tool to the fabrication of the most advanced silicon wafers to make a CPU, technology has been limited by the way things break. Despite this, we know very little about what happens at the atomic level as things break. In the last 30 or so years, however, we have developed the scientific tools to study fracture at the atomic level, i.e., as a chemical problem. Over this time, a new discipline has emerged and continues to mature. The book recounts the emergence of this new scientific discipline.”

In October CSM’s literary and arts journal High Grade hosted its third annual open house, complete with food, music, artist’s works and readings from the 2003 edition. The event gave students an opportunity to show their creative talents and interact with peers who had similar interests and abilities.

A Concrete Offer

In October SI Concrete Systems, a leading manufacturer in concrete reinforcement, has donated $3,000 to the Mining Engineering Department in support of research in rubberized concrete and the development of an explosives engineering program at CSM.

New Center of Research Excellence

In October Mines and ChevronTexaco Corp. announced plans to establish a new Center of Research Excellence. The center will develop advanced technologies to improve interpretation of subsurface geology through computer modeling.

ChevronTexaco will provide research and development funding to establish the center, which will draw upon faculty expertise and resources within the CSM Department of Geology and Geological Engineering. The center will focus on the research and development of integrated technologies targeted to the exploration for oil and gas, particularly in deep water geological environments. ChevronTexaco employees will directly participate in the program and the company will provide real-world geological data from oil and gas fields from around the world. ChevronTexaco also plans to provide additional research investments as expanded programs develop with CSM.

ConocoPhillips Supports CSM

ConocoPhillips’ Vice President of Health, Environment and Safety Bob Ridge BSc CPAP ’71 has presented Mines with a donation of $250,000 of which $150,000 will be designated for the ConocoPhillips SKINNER Scholars Program. The remaining funds will be granted to specific departments, programs, student organizations and fellowships.

Robot Challenge

The Fall 2003 EPICS Challenge “All-Terrain Robot, Search Project, Robots With a Mission,” required first-year students to design and construct all-terrain robots that could autonomously traverse through a natural terrain environment while completing one of three missions: lunar exploration, toxic gas location or landmine detection. A final presentation and competition took place in December.

Leaders from ChevronTexaco and Mines gather on the steps of Berthoud Hall.

“The partnership will allow both organizations to leverage from each others’ expertise,” said Don Paul, vice president and chief technology officer at ChevronTexaco. “The Colorado School of Mines is known throughout the petroleum industry for its focus on industry challenges and for the quality of its students. The Geology and Geological Engineering Department will bring world-class experts to our joint research effort.”

The center’s co-executive directors will be John Heberger, research manager at ChevronTexaco Exploration and Production Technology Co., and Chuck Kluth, distinguished scientist at CSM.

“President John Trefny (left) with Bob Ridge (right) at ConocoPhillips.

“ConocoPhillips has more than 40 years of experience in research and development at universities. We are pleased to support Mines’ innovative, high-impact research programs,” said ridge. “This is a unique opportunity for Mines students to gain hands-on experience in the research, development and application of technologies in real-world environments.”

This program, previously sponsored by the Office of Special Programs and Continuing Education, will focus on the research and development of integrated technologies targeting the exploration for oil and gas and particularly in deep water geological environments. ChevronTexaco employees will participate in the program and the company will provide real-world geological data from oil and gas fields from around the world. ChevronTexaco also plans to provide additional research investments as expanded programs develop with CSM.

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Mitcham a Fulbright Scholar

Professor Carl Mitcham of the Department of Liberal Arts and International Studies is the recipient of a 2003-2004 Fulbright Scholar Award. The Fulbright Program, America's flagship international educational exchange activity, is sponsored by the U.S. Department of State, Bureau of Educational and Cultural Affairs. Mitcham is lecturing in social settings.

Streveler - Learning as in Education, she became just as interested in how students were learning as in what they were learning. Her interest in learning is now focused on engineering education and is centered, she explains, on the question: "Why are some concepts in science and engineering so difficult to learn?" Streveler and CSM's Ron Miller PhD CPR '82 and Barbara Olds have received an NSF grant to study this area.

Siegrist Appointed Director

Robert L. Siegrist was appointed director of the Division of Environmental Science and Engineering in October. Siegrist earned a Ph.D. and M.S. in civil and environmental engineering and a B.S. in civil engineering from the University of Wisconsin in Madison, and is a registered Professional Engineer.

Mines a Top Value

In its survey of public colleges that "combine great academics with reasonable costs," Kiplinger's has ranked Mines 25th in the nation as an in-state 2003 value—up from 47th last year. Mines is the highest ranked school in Colorado, with Colorado State University at 27th and the University of Colorado-Boulder at 43rd.

A Gift of Music

In honor of Rebekah Bush McBride and her love for the School and music, Dr. Guy T. McBride Jr. and family have presented the School with the gift of their Steinway grand piano. A reception was held at the Student Center, where the piano is now enjoyed by all members of the Mines community.

NCAA Photographs Homecoming

The National Collegiate Athletic Association (NCAA) sent photographers to Mines during Homecoming 2003 to capture images for use by the School and in NCAA publications. The men behind the camera raved about the perfect autumn weather, incredible scenery and abundant school spirit.

Expanding Your Horizons Conference

Sixth-, seventh- and eighth-grade girls enjoyed the "Chemistry Has Solutions" workshop, one of 12 presentations offered during the Expanding Your Horizons conference held at Mines in October. Approximately 120 students and 25 parents, teachers and counselors took part in the conference for young women, which encourages the exploration of math, science, technology and nontraditional careers.

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CSM Foundation, Inc.

The Foundation’s annual financial statements were audited by the public accounting firm of Kunderding, Corder & Engle, P.C. The following comments highlight the significant financial information contained in the audited financial statements:

Total net assets held by the Foundation at June 30, 2003 amounted to $133.5 million. This is a 3.5 percent increase ($3.8 million) from the prior fiscal year. The increase is due to contributions revenue and investment returns.

Total contributions (pledges and unpledged gifts) totaled $12.3 million. This is an 18 percent increase ($1.9 million) from the prior fiscal year. The Foundation’s long-term investment pool gross annual return for the fiscal year 2003 is 4.7 percent. The S & P 500 index return for the same period was 20 percent.

Of the $123.5 million in net assets, $101.7 million (90 percent) is restricted by donors to support specific purposes of Mines. The top three gift restrictions are financial aid ($1.9 million), professorship/faculty support ($34 million) and departmental support ($19 million). In this net assets category are charitable remainder trusts with a net present value of $7 million.

Unrestricted net assets are largely comprised of Board-designated endowments ($6.7 million), campus real estate and fixed assets ($1.7 million), CSM loan ($1.3 million), and undesignated or general fund ($2 million).

The unrestricted undesignated funds of $2 million are used to support:
- Office of Institutional Advancement development activities
- Foundation Operations
- CSM Office of External Affairs
- CSM Alumni Association General Support
- CSM Administration

To receive a copy of the CSM Foundation, Inc. audited financial report for fiscal year ending June 30, 2003, please call Linda Landrum, managing director, at 303-273-3142.
When members of the Coalition Provisional Authority in Baghdad needed a senior adviser to the Iraqi Ministry of Oil, they turned to Mines alumnus Robert E. McKee III P.E. '68. McKee, who retired in April as executive vice president, exploration production, for ConocoPhillips Inc., reported to Baghdad in October. His wife, Ann, remains at their home in Houston, while McKee lives dormitory-style and also works in the Presidential Palace, now serving as coalition headquarters.

Coalition Provisional Authority Administrator L. Paul Bremer supervises the reconstruction of Iraq with four primary goals: Create a secure environment. Begin restoration of essential services. Begin to transform the economy. Begin the transformation to democracy.

McKee's role in helping to achieve these goals is critical, since the oil business constitutes 95 percent of Iraq's revenues.

McKee explains his objectives: "As I think about what I'm over here to do, the first thing is to move oil production up to pre-war levels and make those levels relatively sustainable. The second major job is to ensure there is enough gasoline, kerosene, diesel and LPG available in the country to make it through the cold of winter. The country can't produce enough of its own products, so we have a major importing challenge in the immediate near-term. The third goal is to help the Iraqi Oil Ministry craft a new Petroleum Regime that will dictate how the new government will conduct its oil industry in the future. Finally, the other main job is to recreate a new, modern Iraqi National Oil Company with some autonomy from the country's politics."

Above all, McKee notes, "The U.S.'s main challenge now is to find a good way to disengage, leaving a strong country behind and the U.S. safer as a result."

Work on the oil production infrastructure is targeted at reconstruction and long neglected maintenance, rather than expansion or upgrade. The Army Corps of Engineers and the Iraqi National Oil Company are focused on fixing pipes, pumps, transfer stations and problems at the refineries, while concerns have recently been raised about the condition of Iraq's underground oil reservoirs. And, as McKee points out, "Security remains a large problem that impacts almost everything."

Though the challenges are many, McKee remains optimistic. "Fortunately there are highly trained Iraqis at every level in the oil industry. That helps make all of these things doable," he says.

From Mines Grad in Iraq: “This Is a Whole New World for Me”

By Marsha Konegni

At the Presidential Palace where McKee works, the statues of Saddam Hussein's head have been removed. McKee notes that the day of Hussein's capture was "a day to remember." Behind the former throne of Saddam Hussein in the Presidential Palace is a wall painting of Scud missiles.
In 1905, James B. Lowell Met E ‘08 of Worcester, Mass., headed West for the adventure of his life – to study engineering in Golden, Colo. According to his daughter, Martha L. Densmore, also of Worcester, Lowell fell in love with Colorado and would have made it his permanent home if not for his Eastern wife who wasn’t up to a life in the Wild West. “The years Dad spent in Colorado studying at the School of Mines and working at summer jobs were among his happiest,” she says. Recently, Mrs. Densmore found dozens of photographs, all clearly labeled by her father, recording his years in Golden, 1905-08. She donated them to the Alumni Association and we are reprinting some of them here with their original captions.

Lowell lived a long and productive life, dying at age 92 in 1972. He worked for several engineering firms after graduation and, in 1923, became a partner in the Lowell-Whipple Co., Builders and Engineers. He developed the firm into his own corporation, J.B. Lowell, Builders and Engineers and was president and treasurer until his retirement in 1963.

The Golden Memories of James B. Lowell ’08

House Party at the Crucible Club, CSM ’08

Geologizing among the Hog-Backs

My shift at the Sullivan No. 2. Milt Pray ’08 tending chuck

The view from Guggenheim Hall

Prof. Patton gives a geology lecture on File's Peak and the Garden of the Gods

April 23, 1907

Leaving the terminal of the Highland Boy Tram, Bingham, Utah. April 29, 1907

The Newhouse Tunnel, Portal, Idaho Springs

Washington Avenue, Golden

A few in the Cadillac in City Park, Denver ’08


‘String’ Knowles creeping up to the state record

Mineral practice of the CSM tunnel. Noon Hour. Golden ’08

The Golden Memories of James B. Lowell ’08

Leaving the terminal of the Highland Boy Tram, Bingham, Utah. April 29, 1907

The Newhouse Tunnel, Portal, Idaho Springs
Order your copies before the book is released and save! The presale price is only $36.95 plus $6.00 shipping and handling. Presale price is only valid until 3/31/04. After that prices will go up to $42.95 plus $6.00 shipping and handling. Colorado residents please add 7.3% sales tax on both prices. BUT WAIT! Don't miss this opportunity to order a rare, LEATHER BOUND version of "Rocky Mountains to the World: A History of the Colorado School of Mines." You can be one of the few to own this special piece for the presale price of $56.95 or the post publication price of $67.95. Please add $8.00 shipping and handling to both prices and 7.3% sales tax for CO residents to both prices.

For more information on "Rocky Mountains to the World: A History of the Colorado School of Mines" contact the CSM Alumni Association at: (303) 273-3295. Order online at: http://www.ourman.mines.edu/Alum/History_book or send in the form below.

Order Your Limited-Edition Copies Today!

Name: __________________________
Address: _________________________
City: __________________ State: ______ Zip: __________

Please send me _______ copies of "Rocky Mountains to the World: A History of the Colorado School of Mines," for the low price of:

$18.00: Presale Price + Mail, Signed Cover
$24.95: Regular Price + Mail, Signed Cover

Presale price is only valid until 3/31/04. Please add $6.00 shipping and handling to all prices listed. Colorado residents please add 7.3% sales tax as well.

Enclosed is my check for $__________ payable to CSM Alumni Association in the amount of $__________.

I would like to pay with my Visa/MC: __________
Exp. Date: __________

Mail check & order form to CSM Alumni Association, PO Box 1410, Golden, CO 80402-1410

"Rocky Mountains to the World: A History of the Colorado School of Mines" is a beautiful 8 1/2 x 11" hard cover publication that brings the School's history back to life through its many interesting facts and countless vivid photographs. Don't miss your chance to own this spectacular limited-edition volume. Order your copies of "Rocky Mountains to the World: A History of the Colorado School of Mines" today, and relive some of the most historical and important events in the School's past.

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President, Kathy Altman BSc Met '80

and including alumni, friends and family members attended a picnic when the Orediggers played Mesa State. Fifty people helping to build the Alumni Association float. The Grand Junction Section hosted a pre-game party at the bookstore from CSMAA. The Orediggers won their graduation years for alumni ranged from 1940 to 2000.

Phoenix Olympics
Bob Kendrick EM '54, Andy Juransin Geol E '54 and Newell Orr Met E '54 organized another successful Arizona Olympics this year, held in November. Twenty-eight alumni and friends participated. Graduation years for alumni ranged from 1940 to 2000.

Metro Denver
About 250 people attended the CSMAA reception at the SPE convention held Oct. 7 at the Denver Hyatt Regency. Kathy Bret (left), CSMAA interim executive director, and Dee Brown, CSM Petroleum Engineering Department program assistant, admired an enormous ice sculpture of an oil derrick. Homecoming was a big success with about a dozen people helping to build the Alumni Association float. The parade lasted almost an hour and the Queen and Beast won $200 gift certificates for the campus bookstore from CSMAA. The Orediggers won their Homecoming game and the post-game party at the Coolbaugh House attracted more than 100 alumni and friends.

North Carolina
East Coast Regional Director Kim Lewis '92, '03 organized an after-meet luncheon for alumni and family members of the women's track team who competed in Cary, N.C., Nov. 22. The team as a whole placed 14th out of 24 at the NCAA Division II National Championships. Sophomore Heather Beresford led the way and placed 22nd.

Guatemala
Three Miners met on the job in Guatemala for a gold project. From left, Alejandro Arauz MSc Geol '86 of Costa Rica, Arnoldo Garcia BSc Min '79 of Guatemala and Carlos Baptista BSc Min '88 of Bolivia.

Staying connected

Grand junction

The Grand junction Section hosted a pre-game picnic when the Orediggers played Mesa State. Fifty alumni, friends and family members attended including John Schwartzberg BSc Met '88, CSMAA president, Kathy Altman BSc Met '90, CSMAA secretary, and CSM President John Trefny and his wife, Sharon. Trustee Mike Nyikos was instrumental in making the day a success.

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East Coast Regional Director Kim Lewis '92, '03 organized an after-meet luncheon for alumni and family members of the women's track team who competed in Cary, N.C., Nov. 22. The team as a whole placed 14th out of 24 at the NCAA Division II National Championships. Sophomore Heather Beresford led the way and placed 22nd.

Guatemala

Three Miners met on the job in Guatemala for a gold project. From left, Alejandro Arauz MSc Geol '86 of Costa Rica, Arnoldo Garcia BSc Min '79 of Guatemala and Carlos Baptista BSc Min '88 of Bolivia.

Alumni Take a Mine Tour
By Katryn Leone BSc Geol '96

Mines alumni and friends were treated to a fascinating tour of the Sweet Home Mine Sept. 25. The mine, which produces many of the world’s best rhodochrosite specimens, is located near the small mountain town of Alma, Colo. Originally a silver mine in the 1870s, the Sweet Home Mine continually produced high quality rhodochrosite specimens along with the silver ore.

Today the Sweet Home Mine is operated as a specimen mine. Modern exploration and extraction methods used in conjunction with old fashioned hard rock mining have resulted in hundreds of beautiful rhodochrosite specimens. The Alma King, the world’s largest complete rhodochrosite, and the Denver Wall of Rhodochrosite are both on display at the Denver Museum of Nature and Science.

This was the second year that owner Bryan Less BSc Geol ’85 and the Sweet Home Mine offered a tour to Mines alumni. Less showed them several stopes that had been mined out and explained the exploration process.

"The mining method begins with underground drilling. Twenty to 30 holes are needed to form a blast pattern. When detonated, a 2-meter by 2-meter opening, 2 meters deep is formed. This pattern is repeated again and again, thus forming a tunnel underground. When the tunneling is taking place, careful geological, geochemical and engineering work is employed to locate rhodochrosite-bearing structures. Once a good rhodochrosite pocket is located, special tools are brought in to extract the rhodochrosite specimens. This step is critical. Hydraulic diamond chainsaws and rock splitters are used to core around and remove the fragile rhodochrosite specimens. Once damaged crystal can ruin a specimen’s value, according to the Collector’s Edge Minerals, Inc. website (www.collectorsedge.com).

In one stop, the group actually stood where the Alma King was found. However, the real treat was the stop at some in-situ rhodochrosite pockets. The rhodochrosite from the Sweet Home Mine is unique because of its bright cherry-red color and because the crystals almost always form as simple rhombohedrons.

After the tour, the group adjourned to the Park County Fairgrounds where they enjoyed box lunches and a slide presentation. Less continued to captivate with photos of the Sweet Home Mine's greatest treasures and exceptional specimens from his company’s other mines in Arizona, California and Nevada.

The trip was a great treat for all those who attended and we look forward to doing it again next year. For those who missed this opportunity, the CSM geology museum currently has on exhibit a special collection of rhodochrosite from the Sweet Home Mine.

International

The trip was a great treat for all those who attended and we look forward to doing it again next year. For those who missed this opportunity, the CSM geology museum currently has on exhibit a special collection of rhodochrosite from the Sweet Home Mine.
The Petroleum Institute (PI) in Abu Dhabi is now in its third year of existence. The PI was established by Royal Decree in the United Arab Emirates in 2000 as a cooperative venture between the Abu Dhabi National Oil Company (ADNOC) and four major international oil companies (BP/Amoco, Shell, Total, JODCO). CSM, selected to be PI’s academic adviser, is in the third year of a nine-year contract for development of the institute’s academic and research programs. CSM’s major responsibilities include providing academic leadership for the curriculum, the development of facilities and academic infrastructure and faculty recruiting. A key component of the agreement between the PI and CSM is the goal of achieving international accreditation through the Accreditation Board for Engineering and Technology (ABET); CSM is charged with providing the leadership to achieve this goal.

Currently, the PI operates from two newly constructed academic buildings, with a third building for specialized engineering laboratories under construction. A student center and a student/faculty recreation facility are in the final stages of design. When fully built out, the PI campus will be able to accommodate approximately 1,000 undergraduates at its Umm Al Naar site.

Seven current and former CSM faculty and staff are working at the PI. John O. Golden, professor emeritus of chemical engineering and former vice president of academic affairs at CSM, is in his third year as chief academic officer. Golden’s wife, Lynne, is a student counselor at the institute. Hugh Murphy is in his second year teaching physics at the PI. Other faculty and staff this year include Suzanne W. Scott, English and STEPS (the PI version of EPICS), Ronald L. Miller PhD CPR ’82, chemical engineering and STEPS, Dixie Termin, executive assistant to the chief academic officer, Ronald Knoshaug, professor of mathematics and Robert Baldwin PhD CPR ’75, coordinator and acting head of the chemical engineering program.

Plans call for the addition of approximately 250 students each year to reach 1,000 undergraduates at the Umm Al Naar campus. Planning is underway for initiation of graduate studies and research activities, and a new graduate and research center is in the initial stages of planning and design. A continuing education/outreach function is also being established in order to serve the professional advancement needs of ADNOC employees.

We are often asked about the effect of the current world political situation, particularly the problems in the Middle East, on life for Americans at the PI. I can truthfully say that none of our American staff have ever felt threatened in any way. Quite the opposite; our Arab hosts are among the most gracious and accommodating people we have ever dealt with. The students are kind, respectful, and in general, appreciative of our efforts to bring a Mines-style education to the UAE. Mines faculty at the PI often comment on how delightful the students are and what a pleasure it is to teach at the PI. Circumstances could certainly change quickly, but as of now, we are very encouraged by the progress that has been made. We look forward to the future with a sense of anticipation and excitement.

By Robert M. Baldwin PhD CPR ’75
Provinc, CSM President John Trefny represented all international guests attending the UPC's anniversary commemorations. At the October celebrations, university presidents and scholars from around the world also engaged in a series of seminars on Higher Education and Resources Strategy.

In his remarks, Trefny noted: “In addition to meeting their traditional responsibilities of scholarship and effective instruction, the universities of the future will be required to play more significant roles in public service. The latter include the development of new relationships with industry and government partners to address the complex challenges of our times, in our case relative to energy resources.”

More than a dozen nations were represented at the 50th anniversary events. Opening ceremonies, full of pageantry and pride, were held in outdoor stadiums.

According to Tong Zhaoqi, president of the University of Petroleum, East China: “Over the past 50 years of development, the university has developed into a comprehensive university, stressing its engineering programs and combination of engineering with its science, humanity, business and law programs.”

Joining Dr. and Mrs. Trefny in the People’s Republic of China were CSM representatives Gary Baughman MSc CPR ’73, PhD CPR ’74, director of the Office of Special Programs and Continuing Education (SPACE); and Mrs. Baughman; Craig Van Kirk PhD Pet ’72, head of the Petroleum Engineering Department; and Hengren Xia PhD Geop ’88, assistant research professor in the Geophysics Department.

The Mines team strengthened existing professional relationships with petroleum company executives and discussed potential educational programs for their employees. Presentations and meetings were held with key personnel from Daqing Oil Fields, the oldest and largest oil field in China, PetroChina, China National Petroleum Company and its subsidiary BGP, and Shengli Oil Fields. Over the past eight years, these companies have sent more than 200 engineers and scientists to CSM for specialized training programs hosted by SPACE, involving the instructional services of CSM faculty from the departments of Petroleum Engineering, Geophysics and Geology.

A number of the attendees continued and earned graduate degrees at Mines. Baughman noted: “What started out as a series of small, customized educational programs in 1996 has developed into an extensive long-term affiliation with many Chinese clients. The success of the recent programs has established CSM as the premier U.S. educational institution for providing these services.”

Also during the visit, Dr. Trefny hosted an alumni meeting and luncheon for individuals who had attended Mines as undergraduates, graduates or participants in customized educational programs. The gathering was held at the Great Wall Hotel in Beijing.
Early years of soccer at Mines recalled by an early player

By Steve Smith

Peter Bediz Geol E '42, M Sc Geop '42 has an extra tie to the Colorado School of Mines besides his two degrees.

Bediz, who lives in Calgary, Alberta, Canada, was a member of one of the school’s first soccer teams – the 1938 squad coached by Castle Reiser. Bediz played right wing. Then, the Orediggers competed in a Denver amateur league.

The Orediggers have had some success on the soccer field. CSM has won seven conference titles since 1983, including four in a row in the mid-1990s and one under present Coach Frank Kohlenstein last year.

Bob Pearson PE’59 won more soccer games – 125 from 1980 to 1998 – than any other coach in school history. Kohlenstein, who is in his sixth season as Orediggers’ boss, has won 64. He picked up his 300th career win in September 2002.

Two Miners – Eric Talburt and Joel Flanagan – were All-American choices in 2002, the first such honors for Mines since 1995. CSM recorded a school-record 16 wins in 2002 and finished 19th in the national Division II rankings.

But there has to be a beginning somewhere, and CSM’s first foray into soccer was in 1935. It came courtesy of Lt. Raymond C. Hill, an assistant professor of military science and tactics. In 1937, the club sport became a full-fledged team – even down to the idea of choosing coaches in midseason. Efrain Guingona coached the club sport.

Changing coaches in midseason. Efrain Guingona coached the club sport. Mines became a full-fledged team – even down to the idea of changing coaches in midseason. Efrain Guingona coached the club sport. It came courtesy of Lt. Raymond C. Hill, an assistant professor of military science and tactics.

The Orediggers' appearance in the state soccer tournament was a short one "because of injuries and lack of substitutes," according to the Propsector.

Though it is very popular among youth players, the sport of soccer hasn’t caught on in America like it has overseas. In Bediz’s native Turkey (he was born in Istanbul in 1914), soccer is a source of national integrity.

"Soccer was extremely important for citizens," Bediz said by e-mail. "So whenever and wherever a person had the opportunity, he took part in it. I, too, as a student joined the crowd. It was like baseball in the U.S.A. – kids and grown-ups tried it in the street or wherever they could."

Bediz said he wasn’t good enough to make his class team or his high school team.

"Even though I love sports, I never succeeded in any one," Bediz said. "However, I have always been an ardent sport spectator – still am."

Bediz almost didn’t come to Mines. He was awarded a scholarship by an agency of the Turkish government in 1937 and was originally headed to Germany to study geology. Those orders were changed, and political influence played a part.

"The change was due to the fact that another fellow like me was originally to go to CSM," Bediz said. "Those years, particularly in the minds of Turks, Germany was the much preferred super country. This fellow’s uncle, a politically powerful man, used his influence to change his declaration to his ‘much beloved Germany’ at the expense of me."

Unlike today’s program that includes road trips, an organized conference and a chance to advance to the NCAA Division II national tournament, the CSM soccer program of 1938 had no such amenities.

"It wasn’t organized well at all," Bediz said. "It was more nostalgic – people getting together to enjoy their old country sport. We played our games in Denver, mostly against amateur teams whose players were mostly expatriates of foreign countries residing in the Denver area."

There wasn’t any money in the budget for what was considered a minor sport.

"It was all in the spirit of fun," Bediz said. "But I should confess, with some of us – definitely for me – it was the enjoyable alternative means of getting physical education credit. American kids were, by far, better in sports and applied sciences, particularly in mechanical phases, but could not even spell words in their own language."

Bediz took an English course at Mines hoping it would improve his English-speaking skills. He said it turned out to be a "spelling course – in college!"

"Yet I admired their mechanical mastery," Bediz said. "In the summer of ’37, I witnessed these kids at a fraternity house disassemble the Model T of one of their brothers, who was at home for the summer, and reassemble it in his fraternity room. Foreign boys couldn’t even remove a wheel to attend to a flat tire."

Playing soccer wasn’t the only option for getting P.E. credit.

"Another escape route was joining the glee club," Bediz said. "By participating in an approved sport activity or joining the glee club, they could avoid embarrassment and, perhaps, avoid accusation of lacking altitude. I did sing in later years (among other selections, Bediz said he sang “The Road to Mandalay”) because the soccer team activity was either dead or barely alive. Afterwards, I sang for my personal pleasure (mostly in the shower) and at Christmas."

As the team’s right wing, Bediz’s job was to pass the ball into the center of the field (either during an up-field rush or after a corner kick) to set up teammates for shots at the opponents’ net. Bediz said one or two of his centering passes may have resulted in scores for CSM.

"It seemed to me like one or two of my corner kicks resulted in scoring," Bediz said. "You know, it is said that a corner kick is half a goal. However, I seem to remember this case with a bit more certainty that one of my centering attempts unexpectedly – if not miraculously – ended up in the nets. Most likely, the strong wind helped.”

When Bediz left Mines, he became a casual fan of the sport. He never signed on to be a coach or a referee.

"Basically, the game is the same. The touch throw has changed considerably," Bediz said. "It’s much more relaxed now whereas before, it was subject to very strict requirements. I watched some of the world games when my alma mater (Galatasaray, the Turkish school from which Bediz graduated before coming to Mines) finished second in the world. The game may be a little faster and more disciplined.

Bediz, who turned 90 in January, has been living in Calgary since 1941. A “Coach Romney” was promoted when the team reorganized in February.

In 1937, the Propsector said, CSM’s players “were handicapped by the lack of substitutes and in several games, they were forced to play with less than a full team. In spite of this, the team showed a dogged, fighting spirit that won much respect and admiration.”

Mines won one of four games in the first half of the season. CSM rounded out the year with a loss and a tie.

Stash ’81 Moves to Russia as Oil VP

By Roberta Forsell Stauffer

In moving to Russia from Butte, Mont., last fall, Atlantic Richfield Co. Vice President Sandy Stash BSc ’81 felt a bit like she would be traveling back in time to the Wild West Days.

The business climate she entered harkens back to Buttes Copper King era when abundant wealth was concentrated in the hands of a few.

Stash will live in Moscow as vice president for health, safety and the environment for a new oil company called TNK-BP. It’s being formed by a merger of British Petroleum, which owns Atlantic Richfield, and two Russian companies, TNK and Siburco, and will become the third-largest oil company in Russia and the seventh-largest in the world. She characterized the business deal as basically “a couple of guys merging with a huge corporation.”

Pre-1991, all the new company’s Russian oil assets – drilling operations that span the country, major refineries, thousands of gas stations – were government-owned. When the Soviet Union broke up, just a few individuals assumed ownership of the assets.

“There’s an interesting contract over there right now – some overlap from the Soviet days and a new entrepreneurial spirit that the Russians have,” Stash said. “There’s a little element of the Wild West about it.”

A huge divide separates the wealthy from the rest of society. Stash said she’s heard the average monthly wage is between $200 and $300 – yet rent for a Moscow apartment ranges from $6,000 to $12,000 a month.

In essence, there are two economies, Stash said – rich Russians and foreigners on the one hand, and the remainder, eking out a living. A middle class is emerging, however, and Stash said the most exciting part of her job will be to play a part in that.

In her new assignment, she’ll oversee cleanup projects and implementation of new environmental controls, such as measures...
to curb greenhouse gas emissions. Russia has a lot of environmental regulations on the books, Stash said, but not many are enforced. She expects that to change as the country evolves. “Caring about the environment is a rich man’s sport,” she said.

Stash, 44, has been with Atlantic Richfield for her entire career, joining the company in 1983 after graduation from Mines. She was born in Wilkes-Barre, Pa., a coal-mining town, and grew up in upstate New York. She spent her early years with Arco on oil rigs, mainly throughout Alaska and Montana, but also in California and Texas.

During most of her 14 years in Montana, Stash has been at the helm of Arco’s federally mandated cleanup of contaminated Upper Clark Fork River basin sites stretching from Butte to Milfordon. She said the company is approaching the $900 million mark on Superfund-related spending on the Clark Fork sites. “Not many times in a career will you get to be involved on that scale,” Stash said.

She said she’s been most pleased with the top-notch staff she’s worked with and the creative projects accomplished such as Anaconda’s Old Works Golf Course and Butte’s Copper Mountain Sports Complex, which turned waste sites into community assets. Projects like these were hard-sells all around a decade ago, but now they’re being replicated throughout the country, Stash said.

Other bright spots are the settlements that more settlements can be reached that make the most of cleanup opportunities and resolve liability cost effectively. ”It takes concessions on both sides—we paid more than we wanted to, and they waited on seemingly endless studies and legal fees is a frustration Stash shared. Another difficulty has been what she sees as a tendency for the facts to get lost in the rhetoric surrounding decisions. Debate on cleanup alternatives may be healthy, Stash said, as long as all parties are basing their arguments on the same facts.

She said the biggest challenge she faced during her time in Montana has been getting past hard feelings created by the way Arco abruptly shut down mining operations more than 20 years ago. It took a while for the company to acknowledge its role and responsibility to the communities of Butte and Anaconda, and it was the Arco retirees who most helped move everyone beyond bad feelings and on to a different relationship with Arco focused on making the most of cleanup opportunities. As the cleanup winds down, Stash’s hope is that more settlements can be reached that empower local entities to take care of the various cleanup sites since Arco no longer has a presence there.

“We think we’ve come out in a really powerful way,” Stash said.

And she’ll surely be keeping tabs on the developments from afar. “I really care about this,” she said of her Montana Superfund work, “and I’ve always had 100 percent backing from my employer.”

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Brad Pitt to play famous Miner

Brad Pitt is replacing Tom Cruise as the lead in the movie to be made about Wendaal Fertig Hon D Engr ’51, Hon Mem ’65, the American general who became a hero during World War II. The movie will be based on the best-selling book They Fought Alone by John Keats and has a budget of $130 million. When World War II broke out, Fertig was superintendent of the largest iron mine in the Philippines. After the fall of the Philippines, Fertig organized and commanded the Philippine American guerrilla forces. With 35,000 men and an army of natives, he held the island of Mindanao for Gen. MacArthur. Later in life, Fertig was a Mines professor of military science and tactics. He also served as CSM Alumni Association secretary from 1960 until his death in 1975.

Skaggs ’93, ’97 named chapter chairman

Joseph D. Skaggs BSc Met ’93, MS Met ’97 was named chairman of ASM International’s Rocky Mountain chapter.

Skaggs is a senior metallurgical and materials engineer with Schaefer Engineering Corporation, specializing in material failure analysis involving overloading, fractures, fatigue, corrosion, water intrusion and related failure mechanisms. His articles have been published in several business and trade publications, most recently writing for Colorado Claims Magazine. Established in 1933, ASM International is one of the oldest materials societies in the United States and serves materials engineers and scientists in advertising technology and application of materials and metals.
Women’s Cross Country Team Runs Into History

By Gregory Murphy, Sports Information Director

It was a season to remember for the Mines women’s cross country team and longtime Head Coach Oscar Boes. The team ran hard all season long and wound up placing fifth at the 2003 NCAA Division II North Central Regional Championships in Wayne, Neb.

The fifth-place finish enabled Mines to qualify for the Division II National Championships for the first time in program history. At nationals, the Oredigger women completed their remarkable season with a 14th-place finish in the nation. It also marked the first time in the history of Mines athletics that an entire women’s team qualified for nationals.

Head Coach Oscar Boes led Mines to the national championships for the first time in program history. At nationals, the Orediggers knew they were in for a fight, competing in the Division II National Championship in Wayne, Neb.

The fifth-place finish enabled Mines to qualify for the Division II National Championships for the first time in program history. At nationals, the Oredigger women completed their remarkable season with a 14th-place finish in the nation. It also marked the first time in the history of Mines athletics that an entire women’s team qualified for nationals.

Running against the best teams in the region and country throughout the season proved to pay dividends for the team at the conference championships. Just one year after placing a program-record fourth at the RMAC Championships in Alamosa, Colo., the team was ready to compete at the Rocky Mountain Athletic Conference (RMAC) Championships in Alamosa, Colo.

Throughout the fall semester, CSM athletes have volunteered their time and energy to make a difference in the community. The volunteer work began in early August when Mines Head Football Coach Bob Stitt had his players help incoming freshmen move into the dorms.

Volunteer work continued into October when the Student Athlete Advisory Committee set up a canned food drive during homecoming weekend. The committee welcomed numerous donations throughout the football and volleyball games Oct. 18 and raffled off several prizes to those who donated items.

Finally in November, 16 members of the Oredigger football team volunteered to be readers at Harris Park Elementary School Nov. 25.

Mines Athletes Volunteer

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$1 Million Gift Honors Former Mines Professors

Jim ’59 and Arlene Payne Endow Three Scholarships for Hollister, Keating and Meredith

By David Rein

Most individuals can look back on their life and identify turning points—events or experiences of such importance that they were never quite the same again. Such change can hinge on numerous factors, particularly the influence of mentors—professors, coaches, professional colleagues. For Jim Payne Geop E ’59 three Mines professors stand out as having had an extraordinary impact on his life. And out of appreciation, he has chosen an extraordinary way to honor them. With a $1 million donation, Jim and his wife Arlene have established the James L. and Arlene H. Payne Endowment. This endowment will generate support for the John C. Hollister Graduate Fellowship in Geophysics, the George Meredith Scholarship in Geophysics, and the Paul Keating Graduate Fellowship in Geology.

“The while I went to Colorado School of Mines,” Payne explains, “I was fortunate to be exposed to many high quality instructors and professors. As I got older, I realized that out of that group, three in particular significantly influenced my actions after Mines. I grew to understand how much they had helped me not just in my education, but in my life, and I wanted to recognize what they had done for me.”

Mines President John U. Trefny reflects on the Paynes’ gift: “As a former student of Jim’s, I am particularly proud that he has chosen to honor the Mines professors who had such a significant influence on him.”

Although these three professors each began their association with Mines more than 50 years ago, the memories of those who knew them reveal much. Though vastly different in demeanor and teaching styles, each was guided by a deep devotion to the welfare of his students. Consequently they built life-long bonds between their students and themselves, and, in turn, between alumni and Colorado School of Mines.

Paul Keating EM ’21’s life at Mines was dominated by his teaching. He taught two of the four required undergraduate geology courses: Mineralogy and Crystallography, the latter of which earned him the nickname “Crystal Paul.”

One of the main tools in Keating’s lecturing arsenal was to provide memorable, often silly, descriptions of the subject matter at hand. Even after 50 years, these descriptions still stick in the memory of many of Keating’s students. Fred Meissner Geol E ’53, MSc Geol ’54, one former student, explains what lay under the colorful rhetoric. Keating would take complex ideas and present them in simple terms that everyone could understand. “You might forget a mineral was monoclinal, but you certainly would remember that it was shaped like an outhouse.”

Prof. Emeritus Bob Weimer recalls that Keating had a reputation for fairness and an ability to gain students’ trust. Keating had tremendous empathy for his students. He wanted to teach them and he wanted them to learn. Former student Vincent Ames Geol E ’53, MSc Geol ’57 maintains that one of the things that made Keating such an outstanding teacher was his exceptional one-on-one skills with students. “He made you think that he cared about you personally, that he wanted you to ‘get it’ which inspired you as a student to strive to understand.”

When Keating retired in 1962, the geology department newsletter reported, “Probably the greatest satisfaction in this man’s life came in seeing a Mines student overcome difficulties to graduate and become a successful alumnus. He was both friend and adviser to countless students. A measure of the respect and affection which he earned can be seen in the association which he enjoyed with the alumni.”

Louis Scher PE ’56, who flew in from Europe to be with Paul in his last days, remembers, “His love of the School and his dedication to teaching were unmatched by anyone on the faculty during his tenure. He would go out further on a limb, both personally and financially, for any student whom he felt needed help, and whom he felt could cut the mustard with that little extra boost… I am one of those students, and I sincerely believe that if it had not been for his help and guidance during those crucial years of my youth, I never would have finished school and made a go of it in my profession.”

George “Doc” Meredith was a striking physical presence about campus, being both very tall and very lean—an appearance that earned him the appellation of “the gray ghost.” A quiet man, Meredith was renowned for both the rigor of his teaching and his dry wit. Perhaps the most famous example of Meredith’s sense of fun occurred when his students came to class, each wearing a bag of peanuts, and spent the entire lecture nonstop cracking them. A former Meredith student, Al Balch DSc Geoph ’64, recalls, how Meredith pretended not to notice and simply continued with his lecture. The next week, when his students were to be tested on the “Peanut Party” lecture, Meredith came equipped with an ample supply of walnuts and a hammer, “All through the exam, Bam! Bam! Bam!” Balch laughs.

Meredith’s lighter side was accompanied by a deep concern for his students. Prof. Ken Larner Geop E ’60, PhD Geop ’70 recalls him as “a very thoughtful and caring individual.” Tom Davis PhD Geop ’94 of Mines’ Geophysics Department puts it succinctly: “He gave of himself.” Frank Hadsell DSC Geop ’63, another former Meredith student, states, “My life would have been much poorer without his tutelage.”

Meredith, as John Hollister wrote on the occasion of Meredith’s retirement, “Students took with them much more than the knowledge they needed. Meredith had a profound effect on most of us.”

Throughout Doc Meredith’s Mines career, he was rarely seen on campus without a bow tie.

Among his several eccentricities, Paul Keating painted his car black on one side and fire engine red on the other (not pictured).
John Hollister Geol E ’33 is perhaps the best known of the three faculty honored by the Paynes’ gift. Hollister served as head of the Mines Department of Geophysics from 1949 to 1972, was a past president of the Society of Exploration Geophysicists, president of the Denver Geophysical Society, and a winner of the Distinguished Achievement Medal of Colorado School of Mines. And, as the journal Oilweek recognized, at the time of his retirement he was also the man who trained more geophysicists and geologists than any other educator in North America.

Above all, Meredith was a teacher. Although he was the only professor with a Ph.D. in the geophysics department at the time, he believed in the value of teaching and was known for his ability to engage students. While he was unyielding and uncompromising with those who were not trying their best, he also showed great patience and understanding for those who were trying—just at the same time he was unyielding and uncompromising with those displaying indifference and carelessness.

Hollister claimed there was no secret to his approach to pedagogy: “The quality of the instruction and personality of the instructor must be complementary to be effective. If there is no rapport between student and teacher, little knowledge will be exchanged.” Hollister’s relationship with students was self-perpetuating. By treating students with respect, Hollister was able to build a national, and even global, network of former student contacts who wished to repay Hollister’s kindness. The only compensation Hollister asked for was that these people in turn help out future Mines students and alumni. As his gift to the School clearly demonstrates, this lesson was not lost on Jim Payne.

Hollister’s relationship with students was a two-way street. Student feedback had a significant impact on his teaching. He was always looking for ways to improve his approach and methods of instruction. His students helped him adapt and evolve, forming a mutual understanding and partnership that benefited both parties.

Colorado School of Mines received gifts of $25,000 or more from the following individuals between Sept. 1, 2003 and Nov. 30, 2003.

Mike and Holly Blitstein generously donated a working model of a 19th century stamp mill, valued at $50,000, to the Russell L. & Lynn Wood Mining History Archive.

Stanley and Judy Dempsey contributed $25,000 in support of the Arthur Lakes Library.

Bruce ’60 and Ellie Heister contributed $25,000 toward their campaign pledge made in support of the M. Diliberti Honors Professorship endowment.

Ralph Hennebach ’41 made a gift of $122,424 to the Hendeha Visiting Professorship endowment fund.

Pat ’68 and Sharon James made a $25,000 gift in support of the James Scholarship and the Annual Fund.

Joe S. ’42 and Mary G. Keating made a cash gift of $100,000 for a charitable gift annuity.

James L. Lake donated appreciated securities valued at $25,385. The gift was an addition to the Lake Endowment for Collections at the Arthur Lakes Library. With a pledge payment of $181,500, John ’52 and Erika Lockridge completed their $1 million pledge to the Blaster Endowed Scholarship Fund, which supports men’s basketball scholarships.

Colorado School of Mines received gifts of $25,000 or more from the following corporations and foundations between June 1, 2003 and Nov. 30, 2003.

The ARC5 (Achievement Rewards for College Scientists) Foundation contributed $36,000 toward scholarships for seven students.

Baker Hughes contributed $25,000 to support Professor Max Pedersen’s research within the Department of Geophysics.

The Burlington Resources Foundation contributed $25,000 to support the Petroleum Engineering Department.

ConocoPhillips contributed $250,000 toward the ConocoPhillips SP/RT Scholars Program; the departments of Chemical Engineering, Geology and Geological Engineering, Geophysics, and Petroleum Engineering graduate fellowships; Minority Engineering Program; Society of Women Engineers; Society of Petroleum Engineers; and the Career Center.

The Adolph Coors Foundation contributed $23,910 to support the William K. Coors Distinguished Chair in Chemical Engineering.

The Viola Vesta Coultry Foundation gave gifts totaling $35,000 in continued support of the William Jesse Coultry Professor of Mineral Economics and the Coultry Professorship Support Fund.

The Hach Scientific Foundation contributed $35,700 to support the Mobile Science Show.

The Halliburton Foundation contributed $29,500 to be used to purchase equipment for the geomathematics laboratory within the Department of Geology and Geological Engineering.

The ICI Group donated $74,205 to support the research efforts of Professor Kim Williams in the Department of Chemistry and Geochemistry.

In total, the Richard W. Vining Foundation contributed gifts totaling $50,000 to support Robert L. Sieg’s research and educational activities in the area of on-site and alternative wastewater technologies. The Marathon Oil Company Foundation contributed gifts totaling $177,000 to establish a Center for Reservoir Studies and to support several academic departments.

The Phelps Dodge Foundation gave a gift of $30,000 to support undergraduate scholarships.

Rosia Montana Gold Corporation contributed $38,348 to support research within the Department of Geology and Geological Engineering.

Sclumberger contributed $25,000 to support Professor Max Pedersen’s research within the Department of Geophysics.

The Torrey Foundation gave a gift of $30,000 to support research conducted by Professor Jeff Squier BSc Phy ’84, MSc Phy ’86 in the Department of Physics.

Dueser Scholarship Continues 40 Years of Giving

In 1963, Fred Dueser PE ’49 gave a $5 contribution to the Mines Annual Fund. This began an exemplary 40-year record of giving, which this year included a generous pledge of $200,000 to endow the Frederick F. and Dorothy Dueser Scholarship Fund. The four-year merit-based Dueser scholarships will be awarded to nonresident students, with preference given to those in the midcontinent region. Fred and Dorothy activated the scholarship in September with their first pledge payment of $50,000.

I got some help through the G.I. bill after I enrolled at Mines,” Dueser explains, “so I wanted to give something back to the institution. I decided to help other students at Mines or those who want to enroll in Mines.*

The Duesers’ gift is particularly timely given its purpose of providing scholarships for nonresident students. Mines’ ongoing strategic planning process has identified increasing the enrollment of out-of-state and international students as a high priority, and scholarships are essential to offset the cost of out-of-state tuition.

Since their first $5 gift, Mr. and Mrs. Dueser have been two of the School’s most steadfast benefactors. The Duesers have been members of the prestigious Simon Guggenheim Society of the President’s Council every year since the society was created in 1997. “Fred and Dorothy’s support of Mines, which goes back 40 years, is truly an inspiration,” said Mines President John U. Trefry. “They are among the elite circle of Mines supporters who play a primary role in helping the School maintain its margin of excellence.”
The CSM Alumni Association thanks the following individuals who, in addition to paying their annual memberships, made contributions to the Association between Oct. 1, 2002 and Nov. 30, 2003 through the Alumni Association Fund.

The Alumni Association Fund supports the Alma Mater Scholarship program, the CSM Alumni Association Student Assistance program, the Student Activities Aide program, as well as other student and alumni activities.

Contributions support the CSM Alumni Association Student Financial Assistance Program, a nonprofit organization dedicated to serving the interests of Mines alumni. Contributions support the CSM Alumni Association Student Financial Assistance Program, an autonomous independent nonprofit organization.
A long-time noted Denver businessman, Campbell was president of Denver University of New Mexico School of and garden. Abbot donated his body to the favorite vacations included camping and hunting. His engines division in Aeronautical aircraft worked for Wright. Dunn worked in Idaho and chemical engineer with Celanese, a Petrochemical company. Dunn worked in Corpus Christi before finishing his career in Stanford, Conn. Dunn was active in the Palo Duro Stamp Club. Dunn loved the outdoors. His favorite vacations included camping and fishing. Between 1973 and 1996, he and his wife of 61 years, Ginger, lived in Peralta, N.M., turning an alfalfa field into a forest and a garden. Abbott donated his body to the after graduating from Mines, he served as a paraoptometrist in the U.S. Air Force before beginning a 38-year career as a chemical engineer with Celanese, a petroleum company. Dunn worked in Texas in Pampa, La Porte, Bay City and Corpus Christi before finishing his career in Stanford, Conn. Dunn was active in the Palo Duro Stamp Club. Dunn loved the outdoors. His favorite vacations included camping and hunting.

John F. "Jack" Peeso Sr. EM '48 died Oct. 4 at his home in Grand Junction, Colo. He was 83. He had lived in Grand Junction for more than 60 years. Peeso was a mining engineer who was proud of the mining industry and loved the people in it. In 1946 he married Claire H. Peeso, who was 62. In 1996, he married Jean Fazh Peeso, who died in 1999. Peeso enjoyed his lifetime of wonderful friends from the RAMS, CSM Alumni Association, Golden Age and Senior Dance Groups, bridge, fishing, hunting and rock hunting. During World War II he served in the U.S. Navy. Peeso is survived by two sons, a daughter, seven grandchildren, three great-grandchildren and a brother.

Harold W. Stewart Geol E '49 of Delta, Colo., died Jan. 1, 1999. He was 80. Stewart was born in Wisconsin, but graduated from Delta High School in Colorado. He served as a private in the U.S. Army during World War II. His hobbies included rock sampling. He is survived by a sister.

W. Richard Thixton Jr. Geol E '53 died Sept. 11 in Tulsa, Okla., at age 73. He served in the military for two years and was an oil and gas geologist for six years. In 1961, Thixton earned a juris doctor degree from University of Tulsa. He then practiced law and became an independent oil and gas lease broker, oil producer and consultant. He also bred cattle.

Carleton B. Vance Met E '50 of Ladson, S.C., died July 4. He was 82. Vance graduated from high school in Indiana and attended Hannon College before graduating from Mines. He was a foundry superintendent and superintendent of molten metals for Law-Knox Corp. in East Chicago, Ind. He left the three to be part of his professional team. Fees for specialized slide rules and copying for specialized slide rules and patents for intellectual property. They moved to Paonia, Colo., in 1971 where they owned and operated several convenience stores. They moved to Gru, Colo., in 1980 and lived there for 17 years. Lewis was a member of the Church of Jesus Christ of Latter-day Saints. He was an avid reader and inventor. He held the copypight for specialized slide rules and patented the first solid-state counter for self-service gas pumps. He enjoyed collecting scientific instruments, surveying, computers and electronics. However, his biggest joy was spending time with his family. He is survived by his widow, a daughter, three sons and nine grandchildren.

Robert M. Frost Met E '48 of Cridersville, Ohio, died Aug. 7. He was 80. Frost was retired from Wedgewood after 40 years as a medallurgical engineer. He served in the Army Air Corps during World War II before graduating from Mines. He was a member of Christ ChurchEpiscopal, where he served as senior warden. He was a member of Lima International Torch Club, serving as its president. Frost also served on the Shawnee Board of Education as its president and was a life member of the Literacy Council of Northwest Ohio. He also served on Friends of Johnny Appleseed Park District, the advisory committee for the Allen County Planning Commission, and the Lima-area League of Women Voters. He was also a member of Kappa Sigma Fraternity. Frost is survived by his widow, Anne, two daughters and a granddaughter. His brother, Hildreth "Hildy" Frost EM '39, died the same day.

David H. James PE '51 of Littleton died Aug. 28. He was 77. James served in the U.S. Army during World War II as a medical technician in the Pacific Theater. He worked for Aramco Oil Company in Saudi Arabia in the late 1950s. From 1964 until his death, he was a consulting petroleum engineer. James is survived by his widow, Shirley, a son and three grandchildren. A second son preceded him in death.

John A. Dunn Pre '53 died at home in Durango, Colo., June 6 of natural causes. He was 71. Dunn was a native of Colorado.
ROBERT A. METZ '55
EXPLORATION / DEVELOPMENT
PROJECT MANAGEMENT

GEOLOGY

John T. Walker BSc Geop sells seismic data processing services for Geotrace Technologies Inc. in Houston.

Klincklinck Exploration Inc.

Michael L. Coker BSc Pet is a petroleum product manager at the National Geographic Laboratory in Tulsa, Okla.

Janine H. Cernich PhD Min Ec is an associate professor of economics at the University of New Mexico in Albuquerque.

Mark R. Leu BSc Eng is a drilling engineer for Newfield Exploration Co. in Anchorage.

Isabella A. congratulations, and her husband, Patrick, live in Evergreen, Colo.

Karen Long BSc Geol, MSc Pet E '97 is a director of science for Dollar Thrifty Automotive Group Inc. in Tulsa, Okla.

Michael H. Cernich PhD Min Ec is a petroleum engineer for ExxonMobil Chemical Company in Houston.

John T. Walker BSc Geop sells seismic data processing services for Geotrace Technologies Inc. in Houston.

Ralf Linke BSc Geol, MSc Pet E '97 is a drilling engineer for Newfield Exploration Co. in Anchorage.

Anita A. congratulations, and her husband, Patrick, live in Evergreen, Colo.

 Throne Associates Inc. in Denver.

David N. Goroff BSc Geol, MSc Pet E '97 is an energy engineer for Colorado in Fort Drum, N.Y.

Pat recently returned home after attending the International Engineering Congress. The couple attended high school together in Colorado Springs and now lives in Denver.

Jason P. Harmel BSc Min E '91 is a senior project engineer for Granite Construction Company in Idaho, Calif.

Joseph D. Kuhach Jr. MSc CPR W '90 is an engineering department for the Eberhard and High School in Anchorage.

Ara C. Franklin BSc Pet E '91 is an engineering department for the Eberhard and High School in Anchorage.

James H. Crivitz BSc Pet E '90 is an energy engineer for Colorado in Fort Drum, N.Y.
Brynja Kyelim, into the world Oct. 1, welcomed their first child, daughter and development manager for student in engineering management.

Matthew T. Halker BSc Pet

traveled to CSM.

James S. Golden BSc Eng, MSc Econ '03

with many Miners in attendance. The day was a beautiful day in a beautiful setting at the Stanley Hotel in Estes Park, Colo.

July 10 in Conesw. They couple resides in Houston. Josephine Hernandez BSc Pet '03 was in attendance at the wedding.

Lindsey Ozark BSc Eng '02, Jack Sayers BSc Phy '02, MSc Min Ec '02, Alex Zuhoski BSc Min Ec '02, pictured are Michelle, Travis C. Cooper BSc Eng '00, with many Miners in attendance.

Richard Truax BSc Min Ec '00 is a senior software developer for KLX Logic Inc in Denver.

Heidi M. Erker BSc Pe '00 is an engineer for Bechtolt Veatch Engineers in Aurora, Colo.

Vincent S. Carabelos BSc Eng '98 is a petroleum engineer and works in Stuttgart in Germany.

We welcome our new colleagues to the CSM community and look forward to their contributions to our School.

Maria Fabiola Hernandez Villamena BSc Min Ec '02 is an economist for TOT in Mexico City, Mexico.

Halee D. Wood BSc CPR '02, pictured are Michelle, Travis C. Cooper BSc Eng '00, with many Miners in attendance.

Ryan T. Langlois BSc Math & Comp Sci '00 is a software engineer for Intel Corporation in Hillsboro, Ore.

Florida A&M University—FSU/Pensacola

Robert L. Martin BSc Min '98 is a transportation analyst at Lockheed Martin Astronautics in Littleton, Colo.

Halee D. Wood BSc CPR '02, pictured are Michelle, Travis C. Cooper BSc Eng '00, with many Miners in attendance.

The couple resides in Houston. Josephine Hernandez BSc Pet '03 was in attendance at the wedding.

Robert L. Martin BSc Min '98 is a transportation analyst at Lockheed Martin Astronautics in Littleton, Colo.

Michael T. Wrinkle Jr. BSc Eng '98 is a senior software developer for KLX Logic Inc in Denver.

Heidi M. Erker BSc Pe '00 is an engineer for Bechtolt Veatch Engineers in Aurora, Colo.

Vincent S. Carabelos BSc Eng '98 is a petroleum engineer and works in Stuttgart in Germany.

We welcome our new colleagues to the CSM community and look forward to their contributions to our School.
Lauren Murdock BSc Math & Comp Sci

Stephanie J. McGuire BSc Bus & Comp Sci

Shawn A. Schloss BSc Chem

Judy N. Tarpley BSc Comp Sci

John G. White BSc Met & Mat Eng

Vanessa J. Wells BSc Engr

John B. Susko BSc Math & Comp Sci

David W. Zech BSc Math

Cindy S. Sevigny BSc Met & Mat Eng

Lawrence A. Foutz BSc Met & Mat Eng

Diane C. McFaul BSc Met & Mat Eng

Amy A. Loomis BSc Met & Mat Eng

Joshua J. Missick BSc Met & Mat Eng

Kim R. Pearson BSc Met & Mat Eng

Junhwan Y. Cho BSc Met & Mat Eng

Jeffrey J. Price BSc Met & Mat Eng

Tina L. Holton BSc Met & Mat Eng

A. Michael Hume BSc Met & Mat Eng

Willard E. Atwood BSc Met & Mat Eng


corporation in The Woodlands, Texas.

Samm M. Rasanke-v-Kelly BSc Chem Eng is applying to medical school.

Robert C. Sawaya BSc Chem Eng & Tech Mgt VS is a risk engineer for Bao-Tsing in Littleton, Colo.

Jack Squar BSc Phys, BSc Math & Comp Sci is a graduate student in physics at California Institute of Technology in Pasadena.

Jennifer G. Smith BSc Chem Eng is a plant engineer for Willams Exploration and Production in Parachute, Colo.

Daniel W. Stover BSc Chem Eng is a graduate student at Northwestern University in Illinois.

Brent P. Zimmerman BSc Met & Mat Eng is an operations manager for a small firm.

Matthew R. Walsh BSc Chem Eng is a systems engineer for Schlumberger Ltd in Al Khobar, Saudi Arabia.

Jenny Thompson BSc Met & Mat Eng married Tony Pergola Aug. 31 in Wheat Ridge, Colo., followed by a honeymoon in Jamaica. The couple lives in the Denver area where Jenny works for Johns Manville and Tony is an accountant for a small firm.

Gustavo E. Villaronga BSc Econ is a loan officer at Universal Lending Manville and Tony is an accountant for a small firm.

John A. Chapman

Stephen Tyley

Jim Rheinheimer

Arthur V. Petersen

Franklin F. Jones

Dan Fix

Richard Doran

Edward A. Fernau

Paul J. Ellis

Lary G. Cahill

1959

Walter Weid

Stewart Towle

Newell Orr

Milward Kent Miller

Dunn Krahl

Ed Heath

Dick Hatfield

James E. Hale

Bernard Coady

John M. Anderson

Everett L. Kenworthy

E. Eric Hopper

Herbert J. Ashe

Richard J. Arnold

1949

Thomas C. Hedlund

Herbert L. Young

Frederick L. Weigand

Laurence S. Melzer

Dale Kerstetter

People have already registered. The following people have already signed-up:

2003

Fahad A. Al-Firdos BSc Pet is an engineer for the Kuwait Oil Company.

Hani A. Rathb Akbar BSc Pet is an reservoir engineer for Ras Gas Co. Limited in Qatar.

Jeremy Bristow BSc Eng is an electrical engineer associate at Lockheed Martin Corporation in Littleton, Colo.

Matthew H. Budin BSc MSc is a field engineer for Alcan Construction in Blue Ridge Ga., and Assistant, Colo.

Kelly A. Chipp BSc Pet is a graduate student in physics and astronomy at University of Colorado.

Brian L. Cox BSc Chem is an associate chemist for Advanced Pharmaceutical Corp. in Germantown, Md.

Logan R. Fender BSc Eng is a software QA for Gantor BCT in Lakewood, Colo.

Krista E. Flecia BSc Eng is a quality engineer for ice-O-Matic in Denver.

Francisco A. Garcia BSc Math & Comp Sci is working on a master’s in secondary education at Adams State College in Alamosa, Colo. so that he can become a math teacher.

Andrew M. Gierson BSc Econ is operation manager for the Applewood Golf Course in Golden, Colo.

Shawn M. Hubbard BSc Math & Comp Sci is a helpdesk technician for Graphic Packaging Inc. in Golden, Colo.

Matthew R. Jayem BSc Pet is a systems engineer for Raytheon M space at Taurian, Ariz. as an intern.

Andy J. Jolys BSc Eng is a staff engineer for Professional Services Industries in Wheat Ridge, Colo.

Travis N. Johnson BSc Eng works for Xcel Energy Inc. in Golden, Colo.

Mohammed A. Mutab MSc Chem is a researcher at the National Renewable Energy Laboratory in Golden, Colo.

Kim Van Thi Nguyen BSc Bsc is a systems engineer for the Raytheon Company in Littleton, Colo.

Quyen Nguyen BSc Pet is a graduate student at the mathematical and computer sciences department at CSU.

Carlos Paredes MSc Pet has joined Questa Engineering Corp., an international petroleum consulting firm in Golden, Colo., as a reservoir engineer.

Zane T. Prickett BSc Chem Eng is a field engineer for Schlumberger Ltd in lvishkava, Ind.

Liangjiang Wang BSc Chem is a simulation coordinator and volunteer for the Peace Corps in Nepal.

Stephanie L. Wolfe BSc Met & Mat Eng is a materials and corrosion engineer for the Denver production Co. in Houston.

Jennifer E. Wood BSc Eng is a graduate student at University of Colorado.

Hans W. Wychram BSc Pet is a drilling engineer for the Halliburton Exploration Co. in Houston.

Adam L. Zaler BSc Chem Eng is an intern at the U.S. Army.

Brett P. Zimmerman BSc Met & Mat Eng is a systems engineering associate for Lockheed Martin in Denver.

Jeffrey J. Zuech BSc Chem Eng is a process engineer for the Marathon Oil Co.

Joseph P. Zulkal BSc Eng BSc Met & Mat Engr is a field engineer for the N.J. Mortensen Co. in Denver.


Questions? Call the Alumni office at 303-273-3295, 303-273-3290 or 800-446-9488, ext. 3292 or 3290.
“I want what’s best for my family,” said graduate Dominic Spencer following December’s midyear commencement. Spencer earned a bachelor of science degree in petroleum engineering and received five job offers. Three days after graduation, he started work at the Bill Barrett Corporation in Denver.