

# South Dakota School of Mines and Technology

## THE HARDROCK™

A publication for our Alumni,  
Faculty, Staff, Students, and Friends

SPRING 2009

## School of Mines Home to New Research Center

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# Perspectives



Dear Alumni and Friends,

First, let me begin this by letting you know what a pleasure it has been for me and Carolyn to meet many of you these past 10 months in Arizona, California, Colorado, Delaware, Maryland, Minnesota, Nebraska, Nevada, South Dakota, Utah, and Washington, D.C. You are inspiring to us and to our Mines family on so many levels. We thank you for your warm welcome, your spirit, your special reminiscences about Mines, your generosity, your valuable input, and your remarkable support. We look forward to meeting more of you soon.

In this our 124th year, I am pleased to inform you that your School of Mines is engaged in launching and expanding an array of positive developments

to increase opportunities for furthering excellence in teaching and research for our remarkable students; thereby enhancing scholarship, as well as generating increased economic robustness for Rapid City, our surrounding Black Hills communities, and South Dakota.

Three new Mines graduate programs: physics, robotics and intelligent autonomous systems, and construction management were recently approved by the South Dakota Board of Regents. In addition, just this April, Governor Rounds, regents, and local legislators were in attendance at the groundbreaking ceremony for our new Paleontology Research Center.

Thanks to the vision and dedication of our enterprising faculty, a new 2010 research center, the Repair, Refurbish, and Return to Service Applied Research Center (R3S) will give School of Mines researchers and industry partners the opportunity to develop and certify repair processes that extend the life of military equipment. The R3S Center is an offshoot of a 2007 Aging Aircraft Repair Facility study by the School of Mines in collaboration with Ellsworth Air Force Base.

Developments at the Deep Underground Science and Engineering Laboratory (DUSEL) continue to be promising. The DUSEL site preparations proceed with RESPEC of Rapid City conducting the geological mapping for structural stability necessary for the design of laboratory cavities. The first peer-reviewed research paper, examining extremophilic bacteria isolated at the DUSEL site, has been accepted by the *Journal of Industrial Biology and Biotechnology*. The paper was coauthored by faculty members of our Department of Chemical and Biological Engineering. In March, I was honored as your President to host Governor Michael Rounds, representatives, and scientific leaders from the National Science Foundation, the Department of Energy, the University of California, Berkeley, the Lawrence Berkley National Laboratory, and other national laboratories across the country as part of a high-level governmental agencies DUSEL visit.

Now, more than ever, as you know, is an incredibly important time to be dedicated to preparing the next generation of leaders in engineering, science, and technology. The country is turning to its engineers and scientists for help in addressing its environmental, energy, and infrastructure challenges and demand for our graduates remains strong. As a member of the School of Mines family, your continued support of our exceptional students, programs, and facilities is deeply appreciated and more critical than ever.

Looking ahead to my investiture at commencement on May 9 as the 18th president of the School of Mines, I look forward to meeting more of our alumni and friends.

This issue of the *Hardrock* offers many examples of how, together, we are inventing tomorrow here at Mines. We hope you enjoy it.

Sincerely,

Robert A. Wharton, Ph.D.  
President

P.S. If you are not already receiving my e-newsletter, mailed approximately twice per month, and would like to be included, please register at <<http://president.sdsmt.edu>> or contact my office by e-mailing <[president@sdsmt.edu](mailto:president@sdsmt.edu)> or by phone at (605) 394-2411. The *Hardrock* is also available on-line at <<http://news.sdsmt.edu/hardrock/>>.

SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY

THE **HARDROCK**

SPRING 2009

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## On the cover:

**Cover Photo:** The School of Mines is now home to a new 2010 Research Center, the Repair, Refurbish, and Return to Service Applied Research Center (R3S). *Story p. 6*

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## Perspectives

Greetings Hardrockers!

During the first half of my 12-month term as alumni president, the Alumni Association is arguably in the worst shape of its 75-year history — based on our financial situation. Almost immediately after taking the reigns on M-Day 2009, the market plunged to unprecedented low levels resulting in approximately a 30 percent loss in our modest investments. Although these investments only provide a small part of our operating revenue, despite cuts in staff and our travel budget during the past year, we have felt the shared pain of the market downturn. However, a silver (and gold) lining does exist, and it is the generosity of our core alumni. These alumni have responded to our appeals for additional support in a manner indicative of what has always made our association superior to so many others. Many thanks go to those digging (or “mining”) a little deeper into their pockets to ensure our association remains the vibrant organization that has supported the School of Mines for almost 75 years. Another not-so-obvious positive note on the recent economic downturn is the need for new and seasoned engineers, given that the solutions for many of our nation’s problems will require the technical training and thoughtful insights from engineers and scientists — our alumni.



Further encouraging evidence that our Alumni Association is above average is reflected in a recently completed benchmarking project. This project consisted of 23 distinct questions regarding governance, participation, funding, operations, communications, lessons learned, and general issues. Of the eight participating alumni associations, most were from engineering institutions similar to our alma mater. While our governance and participation are comparable, other services are above the norm, including the Hardrock E-News newsletter, the *Hardrock* magazine, five-year reunions, special awards and recognitions, and our self-funding operations. This distinction reflects the dedication from many alumni, including those past and present responsible for the daily operations, such as our association’s patriarch and first alumni director **Guy March** (EE22), our recent executive vice presidents **Jay Brink** (EE56) and **Paul Gnirk** (MinE59), and our recent alumni directors **Duff Erickson** (MinE55) and **Tim Vottero** (Chem84).

My role as alumni president is multi-faceted, including serving as an ambassador at alumni gatherings, conducting quarterly board meetings, conducting as-needed meetings of the executive committee, interacting with the alumni director, and striving to maintain and enhance the services of our association. To address this latter role, I have encouraged consideration of a few new initiatives. One such initiative is an “M-Day Muster” in which alumni unable to attend M-Day activities in Rapid City gather with other alumni from their area during that time-honored, traditional day. Other initiatives include the benchmarking survey mentioned above; making the most of company matches to alumni donations; expanding our association to include “affiliates” such as former students, Black Hills area businesses, and companies that hire our graduates; and striving for more collaboration among the Alumni Association, Foundation, Hardrock Club, and the university administration to promote the School of Mines. As always, our ability to implement these initiatives is vitally dependent on our existing resources and future support from alumni.

In closing, I encourage all of you to attend our 5-Year Reunion — July 7-11, 2010. It promises to be another special event that will coincide with our alma mater’s 125th Anniversary (1885-2010) and worthy of the decades of past reunions, our thousands of dedicated alumni and friends, and our 75-year-old Alumni Association.

All the best to you and yours,

Ralph Wagner (CE75)  
2009 Alumni President

**Our mission:** To advance the interests, influence, and reputation of the South Dakota School of Mines and Technology, by fostering and developing the continued interest and active support of alumni and friends.

# Campus Profile

South Dakota School of Mines and Technology has been a national leader in preparing world-class engineers and scientists since 1885. Our graduates design, construct, and operate the most modern technology to meet complex challenges such as climate change, bioenergy, mineral extraction and processing, advanced materials, environmental quality, and national defense. Our alumni are held in the highest regard by their fellow leaders in industry, consulting, government, health, research, and education.

The School of Mines continuously adapts to meet the needs of engineering and science. Rugged individuals and pioneers in engineering and science founded the School of Mines' intellectual environment more than a century ago. Our faculty, staff, students, and alumni carry on that tradition today.

The School of Mines is a state supported university that provides graduate and undergraduate degrees in science and engineering. The School of Mines is an AQIP institution, accredited by the Higher Learning Commission and committed to quality and continuous improvement.

## 2008-2009 Enrollment:

2,061 students from 40 states and 29 countries

## Costs and Fees:

A School of Mines education has never been more affordable. 2008-2009 annual undergraduate costs for tuition, fees, books, room, and board total approximately \$13,170 per year for South Dakota residents and \$14,490 for non-residents.

## Research:

Researchers conduct state-of-the-art research that benefits the state, the region, and the nation through advances in technology and economic development. In Fiscal Year 2008, researchers received more than \$10.1 million in funding for 90 projects. Funding agencies included the National Science Foundation, the State of South Dakota, NASA, the Department of Education, Army Research Laboratory, and many more.

## Faculty:

The School of Mines employs 135 full-time faculty members, more than 74 percent of whom hold doctorate or other appropriate terminal degrees.

## Honors and Awards:

- One of America's 100 Best College Buys® for the 11th consecutive year
- Dr. Jon Kellar named 2008 South Dakota Professor of the Year

## Placement:

Starting salary offers to our graduates average approximately \$56,000. More than 99 percent of graduates find jobs in their career fields or graduate professional programs within one year of graduation.

### Bachelor of Science Degrees

Chemical Engineering  
Chemistry  
Civil Engineering  
Computer Engineering  
Computer Science  
Electrical Engineering  
Environmental Engineering  
Geological Engineering  
Geology  
Industrial Engineering and  
Engineering Management  
Interdisciplinary Sciences  
Mathematics  
Mechanical Engineering  
Metallurgical Engineering  
Mining Engineering  
Physics

### Master of Science Degrees

Atmospheric Sciences  
Biomedical Engineering  
Chemical Engineering  
Civil Engineering  
Construction Management  
Electrical Engineering  
Geology and Geological Engineering  
Materials Engineering and Science  
Mechanical Engineering  
Robotics and Intelligent  
Autonomous Systems  
Paleontology  
Physics  
Technology Management

### Doctor of Philosophy Degrees

Atmospheric and Environmental  
Sciences  
Biomedical Engineering  
Chemical and Biological Engineering  
Geology and Geological Engineering  
Materials Engineering and Science  
Nanoscience and Nanoengineering

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# Golden Nuggets



## School of Mines holds 158th commencement

The School of Mines held its 158th commencement December 20, 2008, and awarded degrees to more than 125 undergraduate and graduate students.



*The School of Mines held its 158th commencement December 20, 2008*

Rear Admiral (Ret.) **William F. Pearson** (CE64) delivered the commencement address. Pearson began a distinguished career in the public health sector in 1964, and during his extensive career served as assistant surgeon general and chief engineer of the U.S. Public Health Service.



*Commencement speaker Rear Admiral (Ret.) William F. Pearson (CE64)*

**Jason Fields** (ME08) represented the graduating class. While attending the School of Mines, Fields was involved in various activities and organizations,

including Baja Society of Automotive Engineers (SAE), student chair for the Center of Excellence for Advanced Manufacturing and Production (CAMP) for two years, member and co-chair of the Leadership Development Team (LDT), and more.

Also during the ceremony, the School of Mines honored four alumni with Distinguished Alumni awards, given to graduates who have made outstanding contributions in their professions and to the School of Mines. The alumni: **James Abourezk** (CE61), **Randal Baker** (MinE86), **John Collier** (ChE61), **Monte Dirks** (MetE74), and **Ronald Kiehn** (EE50).



*Senior class representative Jason Fields (ME08)*



*Monte Dirks (MetE74), John Collier (ChE61), and Ronald Kiehn (EE50)*

## School of Mines named one of "America's 100 Best College Buys®"

The School of Mines has been named one of America's 100 Best College Buys® for the 11th consecutive year. The survey reports average costs of attendance, including tuition, fees, room, and board. The survey found that the average 2008-09



cost of attendance based on the regular cost at a private institution and the out-of-state cost at a public institution is \$28,051. 2008-

09 School of Mines costs are \$13,170 for South Dakota residents and \$14,490 for non-residents.

This year's America's 100 Best College Buys® is the 13th list published by Institutional Research & Evaluation, Inc., a research and consulting organization that specializes in the recruitment and retention of students for universities. Each year, the organization identifies the 100 colleges and universities in the United States that provide students the highest quality education at the lowest cost. The organization sends surveys to each institution that meets its criteria and makes selections for the list. This year, 1,060 universities responded to the survey.

Survey results showed that the average national ACT score for entering college freshmen was 23 and the average high school grade point average was 3.29. Incoming freshmen at the School of Mines earned an average ACT score of 25 and a GPA average of 3.50.

## President Wharton named to National Coal Council

School of Mines President **Robert A. Wharton**, Ph.D., has been named to the National Coal Council (NCC), the chief advisory panel on federal coal policy. Wharton has been appointed to represent the viewpoint of academic institutions with a curriculum concentrating in mining and technology research.



*Robert A. Wharton, Ph.D.*

Chartered in 1984 under the Advisory Committee Act, the council is one of the Department of Energy's most important advisory committees. Its purpose is to inform and make recommendations to the Secretary of Energy with respect to any matter

relating to coal or the coal industry.

"I am honored to accept this invitation to serve and represent the viewpoint of academic institutions with a special interest in mining and technology research, such as the School of Mines," Wharton said. "All of the major coal companies, particularly those in the Powder River Basin, have active engagements with the mining engineering and management department at the School of Mines, giving us a unique perspective that I look forward to bringing to the NCC."

## School of Mines and Nucor announce selection of endowed professor

Officials from the South Dakota School of Mines and Technology and Nucor Corporation have announced the selection of Dr. **Dana Medlin**, associate professor, materials and metallurgical engineering, for the Nucor Endowed Professorship for Metallurgical and Steelmaking Technologies.

The endowed professorship is the result of a \$1 million gift from Nucor to the materials and metallurgical engineering department at the School of Mines. The new professorship will provide critical support for steelmaking research and ensure the continuation of higher education in the field. Funds will also be used to support graduate and undergraduate students working with the named faculty, travel costs, dues, professional enrichment, and other necessary research and teaching expenditures.

"On behalf of the entire university, I would like to thank Nucor for its generous gift," School of Mines President **Robert A. Wharton**, Ph.D., said. "Our congratulations go to Dr. Medlin for his selection as the Nucor Endowed Professor. His experience in industry, academia, and community outreach brings a unique perspective to what will be an important position."

Medlin joined the Department of Materials and Metallurgical Engineering at the School of Mines in 2005 and also serves in the biomedical engineering graduate program.



*Dr. Dana Medlin*

### School of Mines and Halliburton announce gift

Officials from the South Dakota School of Mines and Technology and Halliburton have announced a generous gift of \$30,000. Halliburton's gift — which was donated to the Department of Geology and Geological Engineering — will go towards developing scholarships for students and faculty support to develop curriculum.

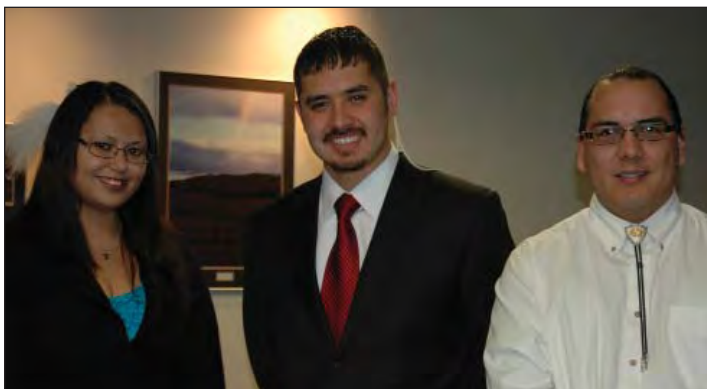
"On behalf of the entire university, I would like to thank Halliburton for its generous gift," President **Robert A. Wharton**, Ph.D., said. "We look forward to continuing and expanding our successful partnership in the future."

The donation was presented by Dr. **Ibrahim Palaz** (Ph.D. GeolE89), director of strategic educational and R&D partnerships for Halliburton.



*Dr. Nuri Uzunlar, director, Black Hills Natural Sciences Field Station; President Robert A. Wharton, Ph.D.; Dr. Ibrahim Palaz (Ph.D. GeolE89), director, strategic educational and R&D partnerships, Halliburton; Dr. Maribeth Price, chair, geology and geological engineering*

### Feathering ceremony honors Native American graduates



*Jade Herman (IS08), William Kindle (EE08), and James Sanovia (GeolE08)*

In December, the School of Mines held a Feathering Ceremony to honor graduating Native American students. Traditionally, a child receives his or her first feather or plume as a baby, and continues to earn them with great accomplishments. The program also included an Honoring Song, an introduction of Hunkapi tradition and ceremony, a blessing and tying of the feathers, and a meal of buffalo stew, wojapi, and fry bread. The students: **Jade Herman** (IS08), **William Kindle** (EE08), and **James Sanovia** (GeolE08).

### School of Mines wins CASE award

The School of Mines Office of Communications and Marketing received recognition from the Council for Advancement and Support of Education (CASE) during the council's District VI 2009 awards program.

The School of Mines was named the Bronze



Award winner for Excellence in Communications in the Periodicals Magazine — One, Two, or Three Colors category for the 2008 Career Guide. The Career Guide is a resource for students, assisting in career planning, résumé and cover letter development,

interview preparation, job searches, and professional development.

The District VI region includes institutions in Colorado, Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming, such as the Colorado School of Mines, Creighton University, Iowa State University, Kansas State University, the University of Nebraska — Lincoln, and more.



# School of Mines Home to New Research Center

The South Dakota School of Mines and Technology is the site of a new Governor's 2010 Research Center focusing on developing and certifying repair processes that extend the life of military equipment.

The Repair, Refurbish, and Return to Service Applied Research Center, or R3S, will develop, certify, and implement innovative methods to refurbish and return vital military equipment to service. The center is utilizing technologies developed at the School of Mines Advanced Materials Processing (AMP) Laboratory, including friction stir welding (welding without melting), cold spray (accelerating particles to supersonic speed) and laser additive manufacturing (particles injected in laser beams for free-form fabrication), and also developing and certifying new processes and technologies.

The School of Mines will collaborate with South Dakota State University, Western Dakota Technical Institute, and other educational partners; industrial partners such as H.F. Webster Inc. and RPM & Associates in Rapid City; and corporations such as Boeing, GE Aviation, Pratt & Whitney, Lockheed Martin, Rolls Royce, and Friction Stir Link to use the processes developed and certified by the center to repair military and civilian equipment.

Inspiration for the R3S came from a 2007 Aging Aircraft Repair Facility study conducted by the School of Mines in cooperation with Ellsworth Air Force Base, several major aerospace and defense companies, Department of Defense Logistics Centers, and Rapid City companies HF Webster Engineering and Professional Services and RPM and Associates. The study showed that utilizing these technologies to repair and refurbish B1 bombers and related aircraft alone would result in \$35 million per year in cost savings for the U.S. Air Force. Using these technologies on other military equipment would expand the cost savings across the Department of Defense into the hundreds of millions of dollars, a

**“For many years, the School of Mines has been an internationally recognized leader in these technologies.”**

**President Robert A. Wharton, Ph.D.**

compelling cost/benefit analysis. This study identified a need that this new applied research center will fill. The successful study was due in large part to support for the project from the South Dakota Congressional delegation, spearheaded by Senator John Thune.

“The School of Mines truly appreciates all of the work of the South Dakota Congressional delegation,” School of Mines President **Robert A. Wharton, Ph.D.**, said. “It is our Senators’ and Congresswoman’s continued support that allows



**“This gives students hands-on applied research opportunities, first in developing technologies and then working on the real hardware.”**

**William J. Arbegast**  
**Director, Advanced Materials**  
**Processing (AMP) Laboratory**

our researchers even more opportunities to assume leadership roles in new technology arenas.”

The Air Force estimates its costs for planned depot maintenance and engine repair exceed \$2 billion annually. In an effort to control costs, the Air Force has slowed procurement of new airframe systems, extending the mission service life for existing systems. This extended life increases the need for the type of state-of-the-art, cost-efficient repair in which the R3S Center will specialize.

The center’s director, **William J. Arbegast**, will oversee projects conducted by faculty members, graduate students, and undergraduate students from multiple disciplines working with industry partners. Arbegast is also the director of the Advanced Materials Processing Center (AMP) Laboratory and the Center for Friction Stir Processing, a National Science Foundation Industry/University Cooperative Research

Center (I/UCRC), both located at the School of Mines.

“This center will be an opportunity for students and faculty to work with industrial partners in a multidisciplinary setting — a true collaborative environment,” Arbegast said. “This gives students hands-on applied research opportunities, first in developing technologies and then working on the real hardware.”

According to Arbegast, the new center is not only a benefit to the School of Mines, but to Rapid City. “This is an applied research center dedicated to repairing military hardware, but with significant commercial value. Civilian equipment like power and transportation systems can benefit from these technologies,” Arbegast said. “The center will identify new technologies and will need people in the Rapid City area to implement them. We will need supporting industries to transition to true production, and expect that several high-tech spinoff companies will be developed in Rapid City.”

“For many years, the School of Mines has been an internationally recognized leader in these technologies,” Wharton said. “We welcome this opportunity to continue to support the Department of Defense and to assist in creating new economic development opportunities for Rapid City and the State of South Dakota.”



# Kellar Named South Dakota Professor of the Year

8 Kellar Named South Dakota Professor of the Year

**"This award is very special as its focus is undergraduate education. It is even more special given the number of great teachers I had while a student at the School of Mines and that I am associated with today."**

**Professor Jon Kellar, Ph.D.  
Chair and Fuerstenau Professor of  
Materials and Metallurgical Engineering**

Dr. **Jon Kellar** (MetE84), chair and Fuerstenau Professor of Materials and Metallurgical Engineering, has been named the 2008 South Dakota Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE). Kellar was selected from nearly 300 top professors in the United States.

"We are extremely proud of the recognition that Dr. Kellar has received and delighted that he has joined such an elite group of professors," School of Mines President **Robert A. Wharton**, Ph.D., said. "This award is a well-deserved acknowledgement of Dr. Kellar's dedication to teaching."

Kellar received his B.S. and M.S. degrees in metallurgical engineering from the School of Mines, and his Ph.D. from the University of Utah. He joined the School of Mines as an assistant professor in 1990, and has served as the chair of the Department of Materials and Metallurgical Engineering since 2000. He has received a number of awards and recognitions, including the South Dakota Board of Regents Award for Excellence in Research, the School of Mines President Award for Outstanding Professor, and the National Science Foundation Presidential Faculty Fellow award.

Several years ago, a group of faculty began exploring new ways to teach the basics of engineering education to first-year students. Those efforts continue to positively reverberate throughout the School of Mines today, specifically with an increased emphasis in direct application of engineering principles at the undergraduate level. The materials and metallurgical engineering department has developed new



*Dr. Jon Kellar (MetE84) and President Robert A. Wharton, Ph.D.*



*Dr. Kellar's award was featured on television, radio, and print news across the region.*

emphases that integrate art and history within the context of the discipline. Kellar believes these efforts result in graduates who are better prepared to tackle the challenges of engineering, and life in general.

Kellar's personal philosophy of teaching is that while there is no substitute for the rigor in engineering education, by injecting humor and hands-on applications such as those above, a faculty member can make the learning process enjoyable.

"This award is very special as its focus is undergraduate education," Kellar said. It is even more special given the number of great teachers I had while a student at the School of Mines and that I am associated with today."

The U.S. Professors of the Year program salutes the most outstanding

undergraduate instructors in the country — those who excel as teachers and influence the lives and careers of their students. It is recognized as one of the most prestigious awards honoring undergraduate teaching. Recipients are selected based on extraordinary dedication to undergraduate teaching, which is demonstrated by excellence in the following areas: impact on and involvement with undergraduate students; scholarly approach to teaching and learning; contribution to undergraduate education in the institution, community, and profession; and support from colleagues and current and former undergraduate students.



# DUSEL Project Continues to Grow

January is a time for beginnings, and so another year began for the Deep Underground Science and Engineering Laboratory (DUSEL), marked by the project's first annual review, held January 28-30 at the University of California — Berkeley.

The review provided the DUSEL team with an opportunity to further define the preliminary design report which will be necessary for submission to the National Science Board in March 2011.

"This first annual review was quite successful," Dr. **Bill Roggenthen** (GeolE69), School of Mines geology and geological engineering professor and the DUSEL co-Principal Investigator (PI), said. "These reviews are critical because we are a year into the project and are getting a better handle on the preliminary design report. This gives us the opportunity to make sure we are on the right track and moving in the right direction."

Another milestone will soon be achieved as the South Dakota Science and Technology Authority continues to pump water from the former mine. As of April 6, it has become dry to approximately 4,841 feet below the surface — less than 10 feet away from 4,850, the level at which early science experiments in physics will be conducted. These projects will most likely begin in summer 2009.

The first contract for geotechnical characterizations at the 300 and 4,850 levels has been awarded to RESPEC of Rapid City. RESPEC will oversee geological mapping for structural stability, necessary for the design of cavities for laboratories and detectors at those levels.

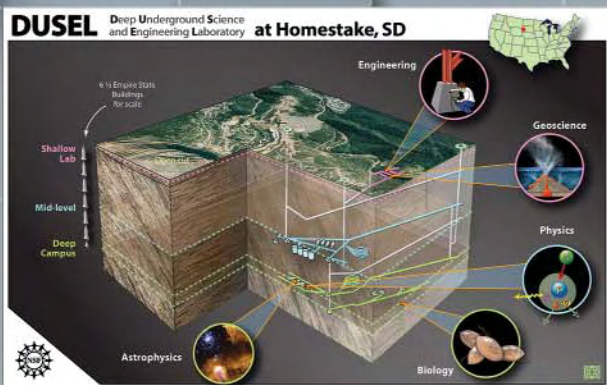
Interest in the DUSEL project has also come from the Department of Energy (DOE). DOE advisory panels have indicated that interesting science would be gained by developing a neutrino beam receptor to connect the Fermilab outside of Chicago with

the DUSEL. This would allow observations of neutrinos as they pass through rock at the earth's core.

To date, the funding for the DUSEL has largely come from a coalition composed of the State of South Dakota, the Sanford Foundation, and funding from the National Science Foundation (NSF). Current contributions total \$130.5 million, with \$45 million from state and federal Housing and Urban Development (HUD) contributions, \$70 million from T. Denny Sanford, and \$15.5 million from the NSF for the preliminary design report and the experiment collaboration. An additional \$15 million for the engineering design of the experiments is expected this summer from the NSF.

The anticipated NSF funding required for the construction of the DUSEL currently stands at \$600 million. If the Department of Energy joins the research endeavor, this may expand to nearly \$1 billion or more.

School of Mines researchers are also making their presence known at the DUSEL. To date, at least 14 faculty members or researchers are actively involved in the project. The first peer-reviewed research paper, examining extremophilic bacteria isolated at the DUSEL site, has been accepted by the *Journal of Industrial Biology and Biotechnology*, and was coauthored by Dr. **Rajesh Sani**, assistant professor; Dr. **Gurdeep Rastogi**, research



scientist; Dr. **Sookie Bang**, professor; and Dr. **David Dixon** (ChE78), chair and professor, all members of the Department of Chemical and Biological Engineering at the School of Mines.

Along with the design and evaluation details, larger questions about the impact of DUSEL on the educational community in South Dakota, as well as across the United States, have also begun. Last fall, a small symposium of South Dakota post-secondary educators and University of California — Berkley staff met on the School of Mines campus to discuss the educational outreach opportunities being created by the DUSEL projects. At the meeting's conclusion, a group was formed to start a web-based educational outreach program for a "virtual DUSEL." This web-based program will include an area for users to explore information about the various levels of the mine and will be continuously updated to reflect the growing and expanding technology and lab facilities at the DUSEL — sparking interest among all levels of students from pre-kindergartners to adults.

But perhaps the most interesting is the most expansive beginning of all: the DUSEL will create a multitude of opportunities for new groundbreaking work on the forefront of scientific exploration, leading us closer and closer to understanding the universe around us and our place within it. The excitement can be felt throughout the scientific community in regards to the proliferation of an ever-growing circle of disciplines, including physics, geology, and microbiology.

"We are starting to see that the DUSEL is becoming a draw," Roggenthen said. "In the world of this kind of science, this is going to be the place to be."



## School of Mines hosts DUSEL events

The School of Mines hosted a reception this spring welcoming key members of the DUSEL team to the State of South Dakota, the Rapid City community, and the School of Mines campus.

Distinguished guests included South Dakota Governor Michael Rounds and representatives from the Lawrence Berkeley National Laboratory, National Science Foundation, Department of Energy, Argonne National Laboratory, Brookhaven National Laboratory, Fermi National Accelerator Laboratory, the University of California — Berkeley, and the University of Chicago.

The reception was an opportunity for these key DUSEL representatives to meet and mingle before beginning an intensive itinerary of tours and meetings regarding future projects and collaborations at the laboratory.

"The School of Mines was pleased to welcome such a distinguished group of visitors to campus," School of Mines President **Robert A. Wharton**, Ph.D., said. "The DUSEL is a project of extreme importance to our campus, the state of South Dakota, the nation, and the worldwide science and engineering community. These meetings are valuable opportunities for all of the DUSEL partners to collaborate, focus, and forge ahead in building the DUSEL into the international hub for science and engineering it is destined to become."



*Dr. Kevin Lesko, Lawrence Berkeley National Laboratory; South Dakota Governor Michael Rounds; School of Mines President **Robert A. Wharton**, Ph.D.; and Dr. **Bill Roggenthen** (GeolE69), professor, geology and geological engineering.*

# Best College Value in the Nation

The South Dakota School of Mines and Technology may be the best college investment in the nation based on the comparison of total costs and average starting salaries of graduates. More significantly, based on data analysis, it appears that the School of Mines may be the only university in the nation where starting salaries for graduates average more than the total cost of a four-year degree.

Even in uncertain times with increasing unemployment rates, the School of Mines offers graduates starting salaries that average nearly \$56,000, and 99 percent of graduates find work or are enrolled in a graduate program less than one year after graduation.

"We've always known that the South Dakota School of Mines and Technology offers a top notch education at a tremendous value, but to be the only college in the country to literally pay for itself the first year after graduation is truly impressive," South Dakota Governor Michael Rounds said. "That speaks volumes for the quality found in the faculty, staff, administration, and students of this institution."

At the School of Mines, the college price tag does not deter future engineers and scientists. This is because the university, with 2008-09 total in-state costs at approximately \$13,170 and out-of-state at \$14,490, offers students a substantial return on their educational investment.

"We are extremely proud of the top-quality, cost-effective education provided at the School of Mines," President **Robert A. Wharton, Ph.D.** said "In today's economy, it is even more important for significant investments like a college education to provide an incredibly worthwhile return. Of all the investments one can make, a college education has traditionally been one of the best. And if you examine total costs compared to average starting salaries,

the School of Mines is the best college investment there is."

School of Mines graduates have some of the highest starting salaries in the Midwest and are among the best paid in the nation, according to a recent report by Payscale Inc., a Seattle-based research firm. The PayScale 2008 Education and Salary Report ranks the School of Mines ninth among Midwestern universities in terms of starting salaries and salary potential. According to the report, the starting median salary for School of Mines graduates is \$55,800 and mid-career median salaries are \$93,500 (average of 15.5 years experience). The report also ranked the School of Mines

**"We are extremely proud of the top-quality, cost-effective education provided at the School of Mines."**

**President Robert A. Wharton, Ph.D.**

**South Dakota School of Mines  
and Technology**

**Engineering**





# Practical Experience Makes Grads More Marketable

At the School of Mines, 99 percent of graduates find employment in their field or are accepted to a graduate or professional program within a year of graduation, and they receive starting salaries that average approximately \$56,000.

What makes these graduates so sought after and highly paid? One very important factor is that more than 75 percent of School of Mines graduates gain applicable work experience through internships, co-ops, and other hands-on experiences. In fact, co-op and internship experience bolsters salary offerings by almost \$3,200 a year.

These experiences make graduates valuable to employers because co-ops and internships provide opportunities for students to apply their classroom learning in

the field prior to graduation. Co-ops are often six to eight months in length (semester plus summer) and internships are usually for the summer or part-time during the school year. Students reap the benefits of these experiences even before they graduate — the average salary they receive from co-ops and internships is more than \$15 per hour, and some employers even provide free housing and relocation expenses.

In 2008, more than 133 employers in 33 states hired our students for co-ops or internships. Companies that hired our students include Bobcat, NASA, Cargill, Caterpillar, Garmin, Microsoft, and many more. For a complete list, see [www.GoToMines.com/experience](http://www.GoToMines.com/experience).



**Michael Barth**  
**Civil Engineering**  
**Piedmont, South Dakota**

US Forest Service – Black Hills National Forest, Custer; NASA, John F. Kennedy Space Center

During his internship at the Black Hills National Forest, Barth surveyed existing and proposed roads, inspected their conditions, and updated maps with GPS and ArcGIS. During his co-op at the Kennedy Space Center, Barth was very involved in project management and implementation. He reviewed drawings, documentation, designs, site investigations, inspections, and specifications for projects such as Security Training Relocation, the Boeing Warehouse Roof, Propellants North Administration and Maintenance Facility, and more.



**Tessanna Bauer**  
**Chemistry**  
**Yankton, South Dakota**

Aegis Food Testing Laboratories, North Sioux City, South Dakota

During her internship, Bauer tested human-grade meat samples for a variety of characteristics including protein content, fat content, moisture percentage, free fatty acid percentage, parts per million of ammonia, and the central nervous tissue percentage in the samples. She also conducted research on correlating ammonia concentration to pH levels to help simplify the in-plant testing of beef samples.



**Kajda Downs**  
**Chemical Engineering**  
**Benson, Minnesota**

Cargill Corn Milling, Eddyville, Iowa; Cargill Cocoa & Chocolate, Mount Joy, Pennsylvania

Downs worked as a project engineer at both locations, where she was charged with the task of making plant operations more efficient. Downs researched different options, contacted vendors and contractors, sized new equipment, oversaw installation, and completed necessary paperwork. She also helped out with day-to-day operations, learning the plant processes, optimum operating conditions, and how each of the pieces of equipment worked.



**Karina Garber**  
**Interdisciplinary Sciences**  
**(Pre-Professional Health Sciences)**  
**Torrington, Wyoming**

Council on International Educational Exchange, Gaborone, Botswana

During Summer 2009, Garber will travel to Botswana as part of a community health-oriented educational program. During the first half of the program, Garber will learn the basics of public health administration along with the local language and culture. During the second half, Garber will travel to rural clinics and homestays to observe and participate in the public health process in a developing nation.



**Justin Gaspar**  
**Electrical Engineering**  
**Sioux Falls**  
**Daktronics, Brookings**

During his internship, Gaspar modeled the layout of power and data parts in large display signs. He also laid out all the power and signal connections for powering and operating the display boards. Gaspar worked with large projects, such as video and scoreboard displays for the Kansas City Royals — the largest HD display at the time — and the New York Yankees.



**Sean Hayes**  
**Mechanical Engineering**  
**Eagle, Idaho**  
**Caterpillar, East Peoria, Illinois; Granite Construction Company, Indio, California**

During his co-op with Granite Construction Company, Hayes set up a preventative maintenance plan to limit plant downtime by creating a tracking system for crucial plant parts. He also designed and oversaw the creation of multiple concrete containments, ranging from a 1,000 gallon slurry tank to 10,000 gallon diesel tanks. As an intern at Caterpillar, Hayes redesigned an idler roller for D6 and D7 dozers. He also compared on-site machining versus outsourcing undercarriage parts by researching the production process and performing a cost analysis comparison.



**Brandon Lampe**  
**Geology and Geological Engineering**  
**Salem, South Dakota**  
**Wilder Construction Company (now Granite Construction), Anchorage, Alaska; RESPEC, Rapid City; Barrick of North America, Elko, Nevada**

During his co-op at Wilder Construction, Lampe worked in various capacities with areas that mined sand and gravel, and surveyed and calculated tonnage. As an intern for RESPEC he worked at Mount Rushmore, monitoring rock block and the resealing of cracks. During his internship at Barrick of North America, Lampe analyzed photogrammetry and tested industry software for purchase recommendations.



**Janile Lewis**  
**Environmental Engineering**  
**Spicer, Minnesota**  
**Lyondell Chemical Company, Houston, Texas and Newmont Mining Corporation, Elko, Nevada**

At Lyndell Chemical Company, Lewis was an intern in the Health, Safety, and Environmental (HSE) Department at the Chocolate Bayou Chemicals and Polymers plants. She helped the environmental group prepare for the Olefins Environmental Agreement

(OEA) Audit, reviewed all Materials Safety Data Sheets (MSDS) for Toxic Release Inventory (TRI) SARA 313 information, and developed and implemented the plant's HSE intranet website. At Newmont Mining Corporation, Lewis performed field work and assisted in assigning permits, administering environmental compliance, water monitoring, and water sampling.



**Ka Po "Phoebe" Li**  
**Industrial Engineering and Engineering Management**  
**Hong Kong**  
**Boston Scientific Corporation, Maple Grove, Minnesota**

During her internship, Li assisted in the identification and pursuit of value improvement and waste elimination projects to support manufacturing and overhead areas in line with business goals and objectives.



**Justin Schmidt**  
**Computer Engineering**  
**Elk Point, South Dakota**  
**Interstates Control Systems, Inc. (ICSI), Sioux Center, Iowa; Garmin International, Inc., Olathe, Kansas**

During his internship at ICSI, Schmidt worked with biodiesel and ethanol team plants, setting up PCs and programming the control system for plants. He also worked with the human machine interface to interface with different valves and motors. As an intern at Garmin, Schmidt worked with a team on global navigation software for PDAs and cell phones.



**James Tomich**  
**Metallurgical Engineering and Mechanical Engineering**  
**Eden, Wyoming**  
**Nucor Steel, Norfolk, Nebraska**

During his time with Nucor, Tomich was involved in energy conservation efforts through the application of a high-emissivity coating in a reheat furnace and the development of operational procedures, which reduced natural gas consumption. Tomich also implemented industrial-scale trials to identify yield losses and to determine metallurgical quality issues.



**Jennifer Ward**  
**Mining Engineering**  
**Colorado Springs, Colorado**  
**Tagart, South Africa**

During her upcoming internship, Ward will be immersed in coal processing from the initial extraction steps in the mines to the final steps of the transportation and logistics of shipping coal. She will be involved with every step of coal processing.





# Small Robots Bring Big Rewards

Who knew that a small family business located in Rapid City, South Dakota, would provide the launching point for a highly successful, international business? **Lance Weaver** (ME83) took that vision and made it reality with Lloyd's Systems, Inc.

Weaver, after several years based in Salt Lake City as an engineer, came back to Rapid City to join Lloyd's Inc., the family duct cleaning business, with the plan to expand into indoor air quality. Shortly after his return, Weaver built his first robot designed to clean ductwork, with assistance in creating the control systems from the Department of Electrical and Computer Engineering at the School of Mines. Since that time, Weaver has kept that tie by employing 17 School of Mines students and alumni.

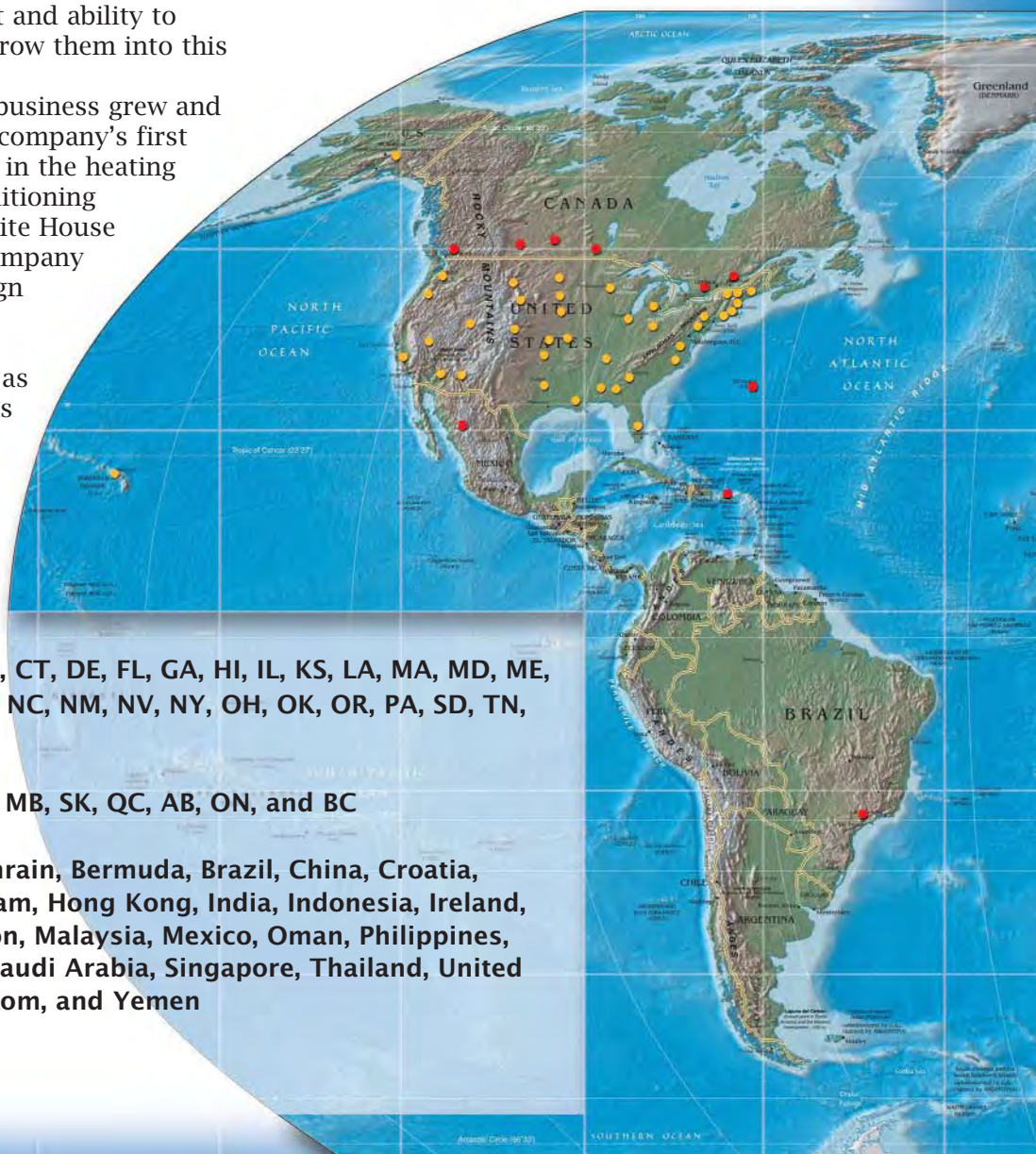
"I wouldn't be here without the School of Mines," Weaver said. "What I learned there gave me the boost and ability to develop my ideas and grow them into this company."

Over the years, the business grew and flourished – one of the company's first analog robots was used in the heating ventilation and air conditioning (HVAC) ducts at the White House in 1999. In 2006, the company spun off the robot design component into Lloyd's Systems, Inc. Business continued to grow, and as of today, the company is the world's market leader in HVAC robotics, with equipment in 33 countries.

The company's HVAC robots inspect, clean, coat fiberglass insulation, disinfect, and seal duct leakage remotely. The devices were initially designed for cleaning, but soon expanded their usefulness. Ductwork is often lined with fiberglass, which gets brittle as it ages. The company responded to this challenge by designing systems that apply epoxy to fiberglass, cleaning and sealing the ducts better than they were before.

This process revealed a timely side effect: Once the robots sealed the old fiberglass, air leakage was reduced and energy efficiency increased. As energy efficiency standards tighten under the Energy Policy Act of 2005, these findings are especially important.

The United States spends \$55 billion annually on HVAC energy. According to Lawrence Berkeley National Laboratory, most commercial HVAC ducts leak somewhere between 7 to 25 percent, a loss of billions of dollar each year. The



- **States:** AK, AL, AZ, CA, CO, CT, DE, FL, GA, HI, IL, KS, LA, MA, MD, ME, MI, MN, MO, MS, MT, ND, NE, NC, NM, NV, NY, OH, OK, OR, PA, SD, TN, TX, UT, VA, WA, WY, and VT
- **Canadian Provinces:** MB, SK, QC, AB, ON, and BC
- **Countries:** Australia, Bahrain, Bermuda, Brazil, China, Croatia, Cyprus, Egypt, Germany, Guam, Hong Kong, India, Indonesia, Ireland, Italy, Jordan, Kuwait, Lebanon, Malaysia, Mexico, Oman, Philippines, Poland, Puerto Rico, Qatar, Saudi Arabia, Singapore, Thailand, United Arab Emirates, United Kingdom, and Yemen

possibility of decreasing that waste and increasing efficiency without significant capital outlay is incredibly valuable to companies with aging HVAC systems. In 2030, 75 to 80 percent of the buildings existing today will still be in use, making the need for energy efficiency an ever-growing demand. Lloyd's Systems recognized that need and moved to fill it. The energy savings is so great that companies often see a return on their investment in less than one year.

"As our buildings age, we need to seriously start finding ways to conserve now, rather than add capacity to aid in our energy wastefulness," Weaver said. "Energy efficiency is incredibly important. As an American, anything I can do to help increase our energy independence is of great value to me."

The company's technology is also being used in different industries. Lloyd's Systems has sent two robots with a paint system to Qatar to paint and refurbish oil pipelines with epoxy to prevent

future corrosion. The flexibility of the robotic systems is one of the great contributors to the success of the company.

"One of our great strengths as a company is finding niche markets and serving them," Weaver said. "Our flexibility and ability to quickly design solutions to new problems allows us to fully serve the needs of our customers."

For more information about Lloyd's Systems, visit <http://www.lloydsystems.com>.



*Lance Weaver (ME83)*

Portrait by Russell Lloyd Jensen / Sage Studios



# Congratulations to Fall 2009 Freshman Scholarship Recipients\*

## International Russia

*Anglo-American School of Moscow*  
Daniel Borling

## Germany

*Black Forest Academy*  
Katelyn Kieffer

## Arizona

*Desert Ridge High School*  
Christopher Petty  
*Flagstaff High School*  
James Weston

## California

*Stockdale High School*  
Alyssa Wade  
*Tehachapi High School*  
Wade Burris  
*Vacaville Christian High School*  
Trevor Moheit  
*Webb School of California*  
Kevin Terris  
*West Hills High School*  
Amanda McConnell

## Colorado

*Arvada High School*  
Chad Buelter  
*Bellevue Preparatory School*  
Justin Haze  
*Bennett Senior High School*  
Nicholas Toberman  
*Canon City High School*  
Michael Wixom  
*Durango High School*  
Zachary Looney  
Stephanie Loose  
*Eaton High School*  
Garret Martin  
*Erie Middle-Senior High School*  
Derek Lovato  
*Faith Christian Academy*  
Christopher Davis  
*Fowler High School*  
Jon Frazier  
*Grandview High School*  
Michael Cannioto  
*John F. Kennedy High School*  
Lee Mortimer  
*Legacy High School*  
Jacob Southard  
*Lyons Middle-Senior High School*  
Grace Hinker  
Marcie Hinker  
Joe Vahlenkamp  
*Maranatha Christian Center*  
Aaron Hammer  
*Middle Park High School*  
Asa Miller  
*Monarch High School*  
Ryan Smith  
*Pawnee High School*  
Janelle Cass  
*Platte Canyon High School*  
Elizabeth Kelly  
*Rock Canyon High School*  
Jeremy Hilleary  
Daniel Ramirez  
*Rocky Mountain High School*  
Alex Borchert  
Joseph Golliber  
Winston Howe  
*Southwest Early College*  
Eric Rivas  
*Thompson Valley High School*  
Benjamin Skinner  
*William J. Palmer High School*  
Lauren McIver

## Florida

*Terry Parker High School*  
Harvey Simmons

## Idaho

*Bonneville High School*  
Jade Carson  
*Idaho Falls High School*  
Morgan Laug

## Illinois

*Argenta-Oreana High School*  
Aaron Leeper  
*Aurora West High School*  
Christopher Groleau

## Barrington Community High School

Elizabeth Kokosinski  
*Bremen High School*  
Kelly Burgess  
*Glenbard West High School*  
William Pixler  
*Grant Community High School*  
Kate Cloonan  
*Harvard Community High School*  
Miguel Flores  
Tim Okkema  
Jaxom Smith  
*Illinois Lutheran High School*  
Aaron Becker  
*Illinois Math and Science Academy*  
Erin Talbot  
*Knoxville High School*  
Keegan Batson  
*Naperville Central High School*  
Jeffrey Josken  
*Neuqua Valley High School*  
Austin Cheng  
Molly Herzog  
*Niles Township West High School*  
Satish Gautam  
*O'Fallon Township High School*  
Paul Jones  
*Rosary High School*  
Karen Matic  
*Saint Charles North High School*  
Joshua Bobka  
*Waubonsie Valley High School*  
Russell Marineau  
*Winnebago High School*  
Megan Cote

## Iowa

*Ames High School*  
Mitchell Kramer  
*Ankeny High School*  
Kameron Oser  
*Denver Senior High School*  
Nathaniel Whitesell  
*East High School*  
Travis Tutje  
*Fort Madison Senior High School*  
Cameron Cole  
*Glenwood High School*  
Austin Hembry  
Matt Simon  
*Homeschool*  
Jonathan Sander  
*Lemars High School*  
Isaac Jahn  
*Lisbon High School*  
Ian Godfrey  
*Mason City High School*  
Matthew Henderson  
*Nevada High School*  
Daniel Hauer  
*Prairie High School*  
Andria Osborne  
*Red Oak Community High School*  
Andrew Soden  
*Sioux Center Community High School*  
David Bruxvoort

## Kansas

*Wichita County High School*  
Trenton Wilke

## Louisiana

*Caddo Parish Magnet High School*  
William Thompson

## Maine

*Presque Isle High School*  
Luke Sexton

## Minnesota

*Andover Senior High School*  
Zachary Weiss  
*Annandale High School*  
Evan Hammer  
*Anoka High School*  
Jennifer Windsperger  
*Becker High School*  
Trevor Larson  
*Bemidji High School*  
Steve Andersen  
Barbara Hadrava  
*Big Lake High School*  
Olivia Zigler  
*Blaine High School*  
Anna Robertson  
*Blue Earth Area High School*

## Harlan Wittlief

*Burnsville Senior High School*  
William Key  
Wyatt Yohnk  
*Champlain Park High School*  
Michael Morrison  
Matthew Richard  
*Chaska Senior High School*  
Louis LaCroix  
*Como Park Senior High School*  
Philip Kramer  
*Concordia Academy*  
Jesse Kohn  
*Cook High School*  
Benjamin Holmes  
*Duluth Central High School*  
Timothy Clemenson  
*Edina High School*  
William Luman  
Grady Perrine  
*Elk River Area High School*  
Andrew Ebert  
Benjamin Ebert  
*Foley High School*  
David Schneider  
*Hastings Senior High School*  
Luke Sweeney  
*Hutchinson High School*  
Ethan Smith  
*John Marshall High School*  
Matthew Simon  
*LaCrescent High School*  
Jonathan McDonough  
Travis Nissen  
*Le Sueur-Henderson High School*  
Jacob Bruhler  
*Lincoln Junior-Senior High School*  
Thomas Keller  
*Luverne High School*  
Evan Meinerts  
*Mayo High School*  
Bradley Lubahn  
*Minneota High School*  
Charles Bot  
*Monticello Senior High School*  
Garrick Oschwald  
*Orono High School*  
Royle Juusola  
Andrew Robison  
*Osseo High School*  
Rachel Pekarek  
*Owatonna High School*  
Tyler Liebsch  
*Red Rock Central High School*  
Tyler Derickson  
*Robbinsdale Cooper High School*  
Kevin Mehlhaff  
*Rockford High School*  
Richard Sutton  
*Saint Michael-Albertville High School*  
Kevin Nelson  
*Schaeffer Academy*  
Jared Goedhart  
*Shakopee Senior High School*  
John Holcombe  
*Southwest High School*  
Michael Gutsche  
*Southwest Star Concept High School*  
Jeremy Crocker  
*Stillwater Area Senior High School*  
Matthew Breitzman  
*Technical High School*  
Brian Korver  
*Waconia High School*  
Kyle Pingeon  
*Wayzata Senior High School*  
Ashleigh Harless

## Montana

*Belt High School*  
Forrest Lanier  
*Billings Senior High School*  
Molly Katolas  
*Butte High School*  
Matthew McGee  
*Charles M. Russell High School*  
Benjamin Ruege  
*Culbertson High School*  
Katy Ramsbacher  
*Custer County District High School*  
Alexia Mader  
*Dawson County High School*  
Emilee Basta  
Lillian Temple

## Powder River County High School

Justin Smith  
Jennifer Stevens  
*Saint Labre Indian Catholic School*  
Victor Yarlott  
*Sentinel High School*  
Sarah Messmer  
*Sidney High School*  
Ethan Schaff  
Jeremy Warner

## Nebraska

*Alliance High School*  
Mason Cover  
Brandon Yuill  
*Battle Creek High School*  
Danielle Henery  
*Bayard High School*  
Scott Samson  
*Bellevue East High School*  
Chase Blazek  
*Bellevue West Senior High School*  
Matthew Kalahar  
*Benson High School*  
Aaron Green  
*Bishop Neumann High School*  
Mary Burke  
*Bridgeport High School*  
Wilson Chikos  
*Cedar Catholic High School*  
Aaron Brodersen  
*Chadron High School*  
Garrett Frederick  
*Chambers High School*  
Levi Dexter  
Luke Walnofer  
*Gordon-Rushville High School*  
Camber Ehrhardt  
*Gothenburg Public School*  
Trevor Franzen  
*Grand Island Senior High School*  
Sigornie Pfefferle  
*Hay Springs High School*  
Bryce Letcher  
*Homeschool*  
Jeffrey Applebee  
Caleb Miller  
*Howells High School*  
Zachary Boysen  
*Kearney Catholic High School*  
Brice Groskreutz  
*Lincoln East High School*  
John Brandt  
*Lincoln East Junior-Senior High School*  
Maxwell Sparks  
*Lincoln Southwest High School*  
Samantha Peters  
*McCook Senior High School*  
Matthew Carriker  
William Lichtenwaldt  
Stephen Smock  
Sarah Wilcox  
*Milford High School*  
Stephen Christensen  
*Millard South High School*  
Amy Craig  
*Mitchell Junior-Senior High School*  
Trevor Mahoney  
*Omaha North High Magnet School*  
Justine Kohtz  
Thomas Sass  
*Papillion-LaVista High School*  
Emily Neely  
*Papillion-LaVista South High School*  
Benjamin Hanig  
*Roncalli Catholic High School*  
Conor Barnes  
*Scottsbluff High School*  
James Roland  
*Southwest High School*  
Kaleb Nielsen-Sheffield  
*Stapleton Public School*  
Austin Kramer  
*Wallace High School*  
Jordan Doell  
*Wausa High School*  
Chris Rodenborg  
*West Holt High School*  
Aaron Fritz  
*Wisner-Pilger Junior-Senior High School*  
Joshua Ohlman

## North Carolina

*William G. Enloe High School*  
Sabin Blumenfeld

## North Dakota

*Beulah High School*  
Garrett Sayler  
*Bismarck High School*

Dennis Arnold  
Ella Eslinger  
Colt Montgomery  
**Bowman High School**  
Tegan Miller  
**Century High School**  
Allan Anderson  
Houston Bashus  
Amanda Durch  
Andrew Munson  
**Fargo South High School**  
Dustin Gustafson  
Connor McCullough  
**Grafton High School**  
Krystal Laskowski  
**Hazen High School**  
Clay Brinkman  
Cameron Dietz  
Cole Grinsteinner  
Brandon Johnson  
Dustin Rothe  
**Hebron High School**  
Robert Dolney  
**Jamestown High School**  
Tate Carlson  
**Killdeer High School**  
Carl Rohde  
Callen Schmalz  
**Mandan High School**  
Domingo Delvalle  
**Minot High School - Magic City Campus**  
Jasper Barlich  
**Saint Mary's Central High School**  
James Carroll  
Sean Lengenfelder  
**Standing Rock Community High School**  
Casey Volk  
**Strasburg High School**  
Leo Huber  
**Wahpeton Senior High School**  
Matthew Fehr  
Alaina Fike  
Kelsey Gladen

**Nevada**  
**Shadow Ridge High School**  
Joseph Medina

**New Mexico**  
**Homeschool**  
Lydia Wermer

**Ohio**  
**Antwerp Local School**  
Alexis Godeke

**Oklahoma**  
**Afnorth International School**  
Zachary Zembower  
**Edmond North High School**  
Natalie Colton

**Oregon**  
**Winston Churchill High School**  
Tyna Raye

**Pennsylvania**  
**Mount Lebanon High School**  
Sondra Twedt

**South Dakota**  
**Armour High School**  
Jerald Farke  
**Avon High School**  
Nathan Rezac  
**Belle Fourche High School**  
Jordan Miller  
Chester Schlosser  
Trevor Tingey  
**Bennett County High School**  
Nickolas Kaltenbach  
Kevin Kuxhaus  
**Beresford High School**  
Nico Edrich  
Neil Hedeem  
**Bon Homme High School**  
Brian Ruppelt  
**Brandon Valley High School**  
Mallory Ageton  
Chad Albertson  
Derek Hanson  
Joseph Redford  
Ryan Truax  
Alex Weidenbach  
**Britton-Hecla High School**  
Carmen Allcock  
**Brookings High School**  
Matthew Elsinger  
**Burke High School**  
Sarah Tipton  
**Canistota High School**  
Cody Buehner  
**Canton High School**  
Charles Fox

Matthew Huber  
**Central High School (Aberdeen)**  
Derek Bankston  
James Dumire  
David Jarman  
Jeanna Jerde  
David Peck  
**Custer High School**  
Shea Koch  
**Dell Rapids Junior-Senior High School**  
Preston Davis  
Elias Hoffmann  
Sarah Leber  
Zachary Rogen  
**Douglas High School**  
Carlos Beatty  
Adam Girtz  
Mikaela Helms  
Corey McKeown  
Bobbie Sedlmajer  
Tarron Teeslink  
Tyler Vogel  
Paul Weisbeck  
**Dupree High School**  
Russell Brehmer  
**Edgemont High School**  
Courtney Guthrie  
Janelle Hinesley  
**Emery High School**  
Cody Determan  
**Eureka High School**  
Mitchell Hoellein  
Jared Quenzer  
**Faulkton High School**  
Andrew Bowar  
**Garretson High School**  
Ian Carlson  
Ezekiel Hollaren  
**Gettysburg High School**  
Jenae Logan  
Joshua Schmidt  
Jared Schrempp  
William Wager  
**Great Plains Lutheran High School**  
Paige Rohl  
**Groton Area School District**  
Scott Vedvei  
**Harrisburg High School**  
Spencer Ferguson  
**Hill City High School**  
Gabrielle Hogancamp  
Cody Lundie  
Emily McKeen  
Travis Noah  
**Homeschool**  
Nicholas Chaney  
Ian Markon  
**Hot Springs High School**  
Victoria Cachro  
Dustin Fischer  
Daniel Friendshuh  
Wesley Johnson  
Blake McPherson  
Luke Pucket  
**Hoven High School**  
Zachery Hartung  
Kirk Rausch  
**Howard High School**  
Jacob Dawson  
**Huron High School**  
Amanda Carlson  
Kelsi Foster  
**Irene-Wakonda High School**  
Lane Stockland  
**James Valley Christian School**  
Joshua Hofer  
Ryan Peterson  
**Joe Foss School**  
Drake Jenö  
**Langford High School**  
Rachel Cameron  
**Lead-Deadwood High School**  
Anna Mollman  
Hayden Waisanen  
**Lincoln High School**  
Brett Anderson  
Kelly Dalton  
Adam Jerstad  
Thomas Kaufman  
Katlin Kjelden  
Carly Van Hove  
Kenneth Watne  
Brian Wiles  
**Lyman High School**  
Faith Begay  
**Madison High School**  
Alex Kotten  
Joseph Schrepel  
**Marion High School**  
Thad Cotton  
**McCook Central High School**

Nick Olinger  
**Menno High School**  
Tyson Hasz  
**Miller High School**  
Katie Schaefer  
**Mitchell High School**  
Steven Jackson  
Jacob Jones  
Lance Nolz  
**Mobridge High School**  
Sam Sauer  
**New Underwood High School**  
Lauren Albers  
Collin Crosbie  
Matthew Koch  
**Newell High School**  
Tyler Adams  
Amanda Durch  
Jakob Rottenbucher  
**Northwestern High School**  
Thomas Morgan  
**Parkston Junior-Senior High School**  
Travis Kroeger  
Nathan Schmidt  
Jordan Smith  
**Plankinton High School**  
Michael Mayclin  
**Platte-Geddes High School**  
Eric Willmott  
**Rapid City Central High School**  
Dustin Beaird  
Kaia Erickson  
Luke Franz  
Edward Godsell  
Kari Gould  
Dawn Henderson  
Trevor Kautzman  
Joel Kirst  
Jason Pate  
Virginia Price  
Amanda Rule  
Adam Schroeder  
**Redfield High School**  
Kasen Keller  
**Roosevelt High School**  
Kory Aschoff  
Casey Leaf  
Jessica Nowak  
Dustin Teply  
**Sanborn Central High School**  
Nathan Bowman  
**Sioux Valley High School**  
Matthew Trooiin  
**Spearfish High School**  
Adam Cahoy  
Brady Hansen  
Graham Heberlig  
Jon Ramsey  
**St. Thomas More High School**  
Daniel Bickett  
Morgan Dixon  
Betsy Farris  
Cody Kopriya  
Leonard Lone Hill  
Rebecca Rodriguez  
Everett Strong  
Justin Twohy  
**Stevens High School**  
Stephanie Athow  
Allyson Burns  
Brett Carlson  
Carson Crawford  
Timothy Heard  
Austin Hegert  
Samuel Hjelmfelt  
Kirstin Huot  
Natasha Jeske  
Kathryn Kammert  
Kari Lund  
Claudia Muci  
Marisa Mueller  
Michael Quinn  
Anne Sewell  
Emily Squillace  
Andrea Strain  
Ryan Webster  
**Sturgis Brown High School**  
Cole Bedford  
Sean Bestgen  
Zacquary Israelson  
Seth Kuenzel  
Sienna Mathiesen  
Kiefer Mundt  
Jacob Podoll  
Robert Reilly  
**Theodore F. Riggs High School**  
Rika Beck  
Seth Brotherton  
Samantha Peterson  
**Timber Lake High School**

Tully O'Leary  
**Todd County Junior-Senior High School**  
Noah Kilonzo  
Dakota Young  
**Vermillion High School**  
Wyatt Hunter-Johnson  
Justine Sorensen  
Jacey Wipf  
**Wagner Community High School**  
Kyle Jacobson  
Brandon Soulek  
**Warner High School**  
Jacob Ochsner  
Aaron Peterson  
**Washington Senior High School**  
Steve Barnett  
Justin Bentz  
Daniel Buttolph  
Travis Clark  
Kelsey Holbrook  
Adam Holtz  
Nicholas Kelly  
Eric Larsen  
**Watertown Senior High School**  
Austin Amdahl  
Drew Danforth  
Ryan Spies  
**Wessington Springs High School**  
Ashley Losing  
**Yankton Senior High School**  
Bryan Borders  
Mark Braunesreither  
Nickolas Fejfar  
Zachary King  
Michael Neilson  
Jordan Schild

**Tennessee**  
**William Blount High School**  
Sarah Ledbetter

**Texas**  
**Brazoswood High School**  
Martha Krebsbach  
**Clear Lake High School**  
Taylor Beamers  
**Friendswood High School**  
Dustin Swindler  
**Grace Preparatory Academy**  
Morgan Kenyon

**Utah**  
**Orem High School**  
Jacob Jensen

**Washington**  
**Auburn Riverside High School**  
Christopher Jacques  
**Bear Creek School**  
Elisha Sanger  
**Ellensburg High School**  
Kara Wickerath  
**Hanford High School**  
Vincent Audo  
**Homeschool**  
Jesse Baggenstos  
**Inglemoor High School**  
Benjamin McDonald  
**Joel E. Ferris High School**  
Douglas Coulson  
**Kamiak High School**  
Nicholas Powell  
**Mount Rainier High School**  
Ryan Feather

**Wisconsin**  
**Badger High School**  
Michael Johnson  
**Hudson Senior High School**  
Thomas Penman  
**Kettle Moraine High School**  
Robert Buchanan  
**Whitefish Bay High School**  
Nathaniel Shoener  
**Woneoc Center High School**  
Tamara Cook

**Wyoming**  
**Campbell County High School**  
Zachary Looney  
Chase Nice  
Travis Vliem  
**Greybull High School**  
Trevor Jensen  
**Kelly Walsh High School**  
Casey Brauchie  
David Corkill  
**Powell High School**  
Roy Oursler  
**Rawlins High School**  
Bryan Bares  
**Sheridan High School**  
Timothy Lowman

\* Denotes awards offered; acceptances pending.



# Award Creates Extended Family

The National Science Foundation (NSF) has awarded a grant of \$600,000 to the South Dakota School of Mines and Technology Tiospaye in Engineering program. The grant will support more collaboration between the School of Mines and tribal colleges and universities in order to increase the number of Native American students graduating with engineering degrees.

Principal investigator (PI) on the grant is Dr. **Carter Kerk**, professor, industrial engineering. Co-PI's include Dr. **Stuart Kellogg** (EE82), chair and Pietz Professor of Industrial Engineering; Dr. **Jennifer Karlin**, assistant professor, industrial engineering; Dr. **Jon Kellar** (MetE84), chair and Fuerstenau Professor of Materials and Metallurgical Engineering; and Dr. **Scott Kenner** (CE77), professor, civil and environmental engineering.

*Tiospaye* is a Lakota word meaning extended family. The Tiospaye program provides financial, academic, professional, and social support structures to Native American students. The extended family of engineering mindset fosters a sense of community and cooperation among scholarship recipients, other students, staff and faculty members, administrators, alumni, employers, community leaders, student family members, tribal members, and tribal college partners. This multi-faceted approach significantly increases

the students' success rate.

"This program addresses a critical challenge on our campus, and engineering as a whole, where American Indian students are severely underrepresented," Kerk said. "Providing support in these four critical areas — financial, academic, professional, and social — will help us in ensuring the success of these students."

The NSF grant began in September 2008 and will be disbursed over the next five years. The initial year has been dedicated to the start-up process of planning and recruitment of academically talented students that are members of federally recognized tribes, graduates of tribal high schools, or transfers from tribal colleges who have financial need and a commitment to an engineering career. **Charles "Tex" Claymore**, associate director/senior recruiter, admissions, has been instrumental in this effort.

The subsequent four years will be focused on implementing the program and providing scholarships. The program will offer approximately 15 scholarships — each worth up to \$8,000 per year — to help retain these students in an environment that promotes academic and professional success, while supporting the students socially and in their cultural traditions. The ultimate goal, upon successful completion of an engineering undergraduate degree, is to place these students in appropriate employment or further education through programs emphasizing career planning and professional options.

"Many of the employers looking at our graduates have a mission to hire a diverse workforce," Kerk said. "Through this program, we can help provide these employers with what they are looking for."

For more information, visit  
<<http://tiospaye.sdsmt.edu>>



*Dr. Carter Kerk*



*Dr. Stuart Kellogg  
(EE82)*



*Dr. Jennifer Karlin*



*Dr. Jon Kellar  
(MetE84)*



*Dr. Scott Kenner  
(CE77)*



# India Club Creates Community



In 1985, the India Club at the South Dakota School of Mines and Technology was established to provide a home base for Indian students and to promote cultural interaction with the community. More than 20 years later, it is still going strong.

According to **Srujan Mishra** (Ph.D. Nano, India), president of the India Club, the organization helps Indian students acclimate to campus life and the new culture.



**Srujan Mishra**  
(Ph.D. Nano,  
India)

"The club serves as a resource for new students from India when they are initially homesick, and helps them meet other students through regular meetings and events," Mishra said. "It also helps them in interacting with American students and making new friends."

**Suzi Aadland**, director of the Ivanhoe International Center, provides the club with a list of newly admitted students. The club then contacts the students before they even arrive in the country to arrange airport transportation and other necessary services, such as obtaining Social Security numbers and driver's licenses, creating bank accounts, and more.

"Clubs like this really help students in building a community and providing a safe, comfortable environment to get acclimated to the new culture," Aadland said. "It provides a positive support system."

Faculty advisor Dr. **P.V. Sundareshwar** agrees. "A club like this can be one of the biggest benefits when you come from a foreign land and feel lost," he said. "It provides the greatest social network and help that you can't buy."

According to Sundareshwar, an assistant professor in the Institute of Atmospheric Sciences,

the club is an invaluable resource to more than just students. It allows faculty members and researchers to learn about different cultural sensitivities, including navigating the more informal American classroom.

The India Club isn't open to only those with a connection to the School of Mines. Five Indian families in the Rapid City area with no university affiliation currently participate in the club. This is only one piece in the organization's community interest.

Diwali, the most well-known of the Indian festivals, is also the biggest celebration for the India Club and the most recognizable to the Rapid City community. For more than 20 years, the club has organized the "festival of lights," offering Indian food, traditional dances, and a fireworks display to the community. In 2008, more than 550 people attended.

Alumni continue to have a presence in the club through donations and assistance in shipping food for the event. Many alumni even continue to attend Diwali, traveling from Denver, Minneapolis, and even as far away as California.

The India Club also participates in the Friendship/Family program, which is an opportunity for international students to interact with and get to know American families. In addition, the club participates in community service projects, volunteering with the Black Hills Children's Home.

"The India Club adds to the culture and diversity of campus and the community," Mishra said. "It is important to us to interact with the community around us, and we look forward to continuing that in the future."



# Generous Gift Establishes Energy-Sustainability Chair

Through the years, **Larry** (ME72) and **Linda Pearson** have been longtime supporters of the School of Mines and the SDSM&T Foundation. A recent generous gift continues that support.

The Pearsons have made a major gift to establish the Pearson Chair in Mechanical Engineering, the second endowed chair to be instituted at the School of Mines.

With Larry's decades of work in the field of energy, it is no surprise that the Pearson Chair will focus on energy sustainability. "Reliable future energy initiatives need to be researched, developed, and promoted starting today," Larry said. "We cannot think of a better place for this type of research and education to take place than at the School of Mines."

"Linda and I both feel it's necessary for the School of Mines to have a significant presence in the area of sustainable energy," Larry added. "We hope that as a result of this endowed chair, the School of Mines will be able to educate and graduate more well-trained engineers who are ready to serve industry."

The Pearson Chair will begin as a Pearson Professor. The first Pearson Professor will be named in the 2009-10 academic year and will have the opportunity to focus on all areas of energy sustainability, including the availability of energy



Linda and **Larry Pearson** (ME72)

**"We cannot think of a better place for this type of research and education to take place than at the School of Mines."**

**Larry Pearson (ME72)**

resources; technologies required to extract, process, distribute, and generate power from them; alternative and sustainable energy sources; and the best technologies and management practices for dealing with utilization efficiency and conservation of energy. The individual chosen to be the Pearson Professor and eventual chair must have a national or international reputation for his or her teaching, research, and industry experience, as well as skill in developing and maintaining industrial partnerships and economic development.

"Although this endowed chair is set up for the Department of Mechanical Engineering, energy-related activities are truly multidisciplinary and cross over into numerous branches of engineering and science on the School of Mines campus," Larry said. "Linda and I expect that the Pearson Chair will be a leader of multidisciplinary teams that will address society's need for affordable, sustainable, safe, and clean energy."

"On behalf of all of our exceptional students, faculty, staff, and stakeholders, we say thank you to Larry and Linda Pearson for their extremely generous gift to the School of Mines," President **Robert A. Wharton**, Ph.D., said. "The establishment of the Pearson Chair is a transformational event that will help lift the School of Mines to international recognition as a leader in energy education and research."

With their gift, the Pearsons join a growing list of others who will be recognized at the co-chair level for the Building the Dream Campaign, an indication of a commitment of \$1 million or more toward the campaign effort.





# Mining Engineering's Footprint Endures

In the nearly 125 years since the creation of the South Dakota School of Mines and Technology, the university has grown from 20 students and four faculty members to approximately 2,100 students and 135 faculty members. Through these many years and many changes, one thing is still the same — the presence of mining engineering.

The School of Mines got its start in the gold fever of the 1870s. As the population of the Black Hills continued to grow, mining emerged as the primary, motivating industry for the region. Because of this, there were many that thought that a school supporting this industry was needed. In February 1883, a bill was introduced at the 15th Biennial Legislative Assembly of Dakota Territory in Yankton to “establish, locate, and endow a school of mines.”

However, there was some opposition, and it wasn't until March 7, 1885, that Governor Gilbert A. Pierce signed the bill to create the Dakota School of Mines in Rapid City. The cornerstone of the first building was laid on August 19, 1885, and on February 16, 1887, the first 20 students began their instruction in mineralogy, geology, chemistry, practical operation of mining, and free-hand drawing.

As the years passed, the School of Mines grew in reputation and scope, expanding to more than 2,000 students and more than 30 bachelor's, master's, and doctoral degree programs. However, by 2004, the School of Mines was dangerously close to losing a piece of its history as enrollment in mining engineering dwindled to only nine students.

In an effort to stem this tide, the department established the Mining Advisory Board. The board, comprised of professors, alumni, and business leaders, decided that the addition of management principles to the curriculum would allow the program to compete in the ever-changing industry.

In addition to the strong traditional engineering courses, the program's coursework now includes mining business principles, management, financial analysis, human resources, and mineral economics. This gives graduates a unique, strong management emphasis along with a strong mining engineering education that sets them apart from their peers. The School of Mines also offers unique opportunities not available to students at other institutions through collaborations with the Deep

Underground Science and Engineering Laboratory (DUSEL), located at the former Homestake Gold Mine in Lead, South Dakota.

“The School of Mines gives students the foundation they need to be successful in the mining industry. They get the tools they need that allow them to adapt and learn throughout their careers,” **Tony Jensen** (MinE84), president, CEO, and director of Royal Gold, said. Jensen is a member of the Mining Advisory Board. “It also provides them with a community that they can draw on for a lifetime, and I've certainly done so throughout my career. I'm very proud to have the School of Mines as my foundational education.”

The revamp of the program has been wildly successful, growing the program to nearly 90 students. Not only are these students receiving an education that will allow them to serve the needs of the mining industry well into the future, they are highly sought after as graduates. There are more jobs available than there are graduates to fill them — currently, less than 15 universities offer degrees in mining engineering. This translates to 100 percent placement for School of Mines mining engineering graduates and starting salary offers that exceed average national figures and are the highest of all majors on campus.

“Thanks to a very engaged and committed advisory board, and an equally dedicated faculty and staff, this program has made a name for itself,” **Shashi Kanth** (M.S. MinE93), director, mining engineering and management, said. “The excellent corporate and individual financial support has been exceptional and is one of the main strengths that can be attributed to the growth of the program. We are more than just an effective team, we are like family!”

In the nearly 125 years since its inception, the School of Mines has grown exponentially, but mining engineering will always be a piece of the university's history, and a key to its future.



# Hardrockers Take Homestake Trophy

This fall, the Hardrocker football team accomplished something that the School of Mines hasn't seen in five years — they captured the Homestake Trophy. Their 24-23 win over Black Hills State University (BHSU) was a welcome addition to an already competitive season.

The win brought the School of Mines to a .500 record at 5-5 and improved the team's Dakota Athletic Conference record to 3-4. The last time the Hardrockers had a .500 season was in 1995.

"This trophy and tradition goes back so far — in fact, this is one of the longest rivalries in college football history," Coach **Daniel Kratzer**

said. "Consequently, the alumni that have participated have really put a lot of credence in the fact that this is one of the most important ball games of the year. The traditions of this rivalry have been some that exceeds all others in the conference."

The team received a boost due to an outstanding performance from freshman running back **Jamie Dale** (MetE, Alpine, Calif.). Despite a recent knee injury, he accrued 148 rushing yards on 29 carries, while scoring twice to aid his team. Dale also caught five passes for 38 yards, including a long of 17 which set up the game-winning score late in the fourth quarter. He broke the school's season scoring record with his two touchdowns, tallying 90 points for the year (13 touchdowns).

Quarterback **Nick Russell** (IS, San Diego, Calif.), who went 22-of-33 for 183 yards, scored the other touchdown for the Hardrockers — a rush from one yard out with 1:20 remaining to tie the game at 23. Place kicker **Andy Smith** (EE, Pierre), who had connected on a 46-yard field goal in the second quarter, kicked the point after touchdown (PAT) to put the Hardrockers ahead for good.

The Hardrocker defense was solid when it needed to be, keeping the Yellow Jackets out of the end zone on their final drive. A 30-yard field goal attempt with less than 10 seconds on the clock was negated by a participation foul on BHSU and the scoreboard ticked down to zero.

"We feel like we've upgraded the performance level of this team through recruiting over the past few years, and the players that we have on the team are starting to feel the passion that exists with the alumni and this rivalry," Kratzer said. "When you put talent and chemistry together, it blends and creates success, and that's what happened this year."

The Homestake trophy has been in existence since 1946. The rivalry resumes on October 31, 2009, in Spearfish. If Coach Kratzer and his team have anything to say about it, the Homestake Trophy will stay on School of Mines turf for another year.



# A Summer Filled with Camps

Summer often finds many college campuses quiet and deserted by students. That is not the case at the South Dakota School of Mines and Technology. Summer sees the influx of hundreds of elementary, middle, and high school students who come to campus to learn more about science and engineering.

These students take classes offered by the Office of Educational Programs and Professional Conferences (EPPC), launched to create educational opportunities for youth and professionals in the science, technology, engineering, and mathematics (STEM) fields. Since its inception, EPPC has served more than 9,500 participants through more than 325 classes, camps, and conferences.

"Research says that kids become interested in their career choices in the upper elementary and middle school years," **Nancy Anderson-Smith**, EPPC director, said. "We feel that offering kids positive STEM experiences in this age helps to reinforce that interest and will put them on the path to a career in engineering or science."

According to Anderson-Smith, children need positive experiences in STEM areas to stay on the rigorous math and science tracks in school.

"Kids often do not understand what engineers do and struggle with math and science in both middle school and high school," she said. "Our

programs are designed to give them fun, practical applications that will help them better understand the work they do in their classrooms."

A new addition to the roster for Summer 2009 is the Distance Running Camp, led by Jack Daniels, Ph.D., head distance coach at the Center for High Altitude Training. Daniels will coach cross-country, road, and track distance runners through sessions for youth, college, adult, and coaches. Sessions will include sport science lectures, track and interval workouts, Continuing Education Credits (CEC) for coaches, strength training for runners, yoga and stretching classes, sport nutrition, running at altitude (Harney Peak), and more.

Daniels is a renowned exercise physiologist, Olympic coach, and Olympic silver medalist. He has coached 31 individual NCAA champions, eight national NCAA team champions, and 131 All Americans. Daniels was named "World's Best Coach" by *Runner's World Magazine*. He is also the author of *Daniels' Running Formula*, the ultimate training guide for the distance runner.

For more information about summer classes and camps, visit [www.sdsmt.edu/learn](http://www.sdsmt.edu/learn).



## Elementary Classes

Natural Resource Engineering (June 22-26)  
Science Smorgasbord (July 6-10)  
Computer Whiz! (July 13 & 14)  
Watershed Science & Engineering (July 15 & 16)  
Tapestry: Weaving Art & Science (July 20-24)  
A Walk Through Space (Aug. 3)  
Cookie Mining (Aug. 4)  
Camp Invention® (Aug. 10-14)  
Wild Weather (Aug. 19)

## High School Classes

Socket to Me! Computer Camp for Girls (June 7-12)  
Distance Running Camp (June 9-12)  
Socket to Me! Computer Camp for Boys (June 14-19)  
Youth Geology Field Camp (June 14-19)  
STEPS Engineering Camp for Boys (June 21-26)  
Youth Engineering Adventure (YEA) (June 21-26)  
STEPS Engineering Camp for Girls (July 12-17)  
Computer Games & Movies Day Camp (July 13-15)  
STEPS Engineering Camp for Girls (July 19-24)  
Space Adventures! Camp (July 26-31)  
STEPS Engineering Camp for Boys (July 26-31)

## Middle School Classes

Youth Geology Field Camp (June 7-10)  
Socket to Me! Computer Camp for Girls (June 7-12)  
STEPS Engineering Camp for Boys (June 7-12)  
Distance Running Camp (June 9-12)  
Socket to Me! Computer Camp for Boys (June 14-19)  
STEPS Engineering Camp for Girls (June 14-19)  
Computer Games & Movies Day Camp (June 22-24)  
STEPS Engineering Camp for Boys (July 5-10)  
STEPS Engineering Camp for Girls (July 5-10)  
STEPS Engineering Camp for Girls (July 12-17)  
Super Science Camp (July 12-17)  
STEPS Engineering Camp for Boys (July 19-24)  
Space Adventures! Camp (July 19-24)  
Meteorology Day Camp (Aug. 4-6)  
Chemistry Magic Day Camp (Aug. 7)  
A Walk Through Space (Aug. 10)  
Build an Edible Rover (Aug. 12)

## Student receives Pella Corp. award

School of Mines student **Charles Maupin**



**Charles Maupin** (ME, Hulett, Wyo.)

(ME, Hulett, Wyo.) has been selected by Pella Corporation to receive a \$5,000 scholarship. Maupin was one of three students in Pella's Intern/Co-op Program that was selected to receive a scholarship award.

## Homecoming king and queen crowned

**Sara Hagie** (ME08) and **Travis Schmidt** (MetE, Sioux Falls) were elected Homecoming King and Queen during the M-Week ceremony held on October 2. Schmidt has been involved with Delta Sigma Phi, intramurals, Orientation Leaders, M-Week and Peer Advisors. Hagie was involved with Alpha Omega Epsilon, Student Ambassadors, Peer Advisors, Tech Activities and Programs, Phi Eta Sigma, Tau Beta Pi, and the Aero Design Team.



**Homecoming Queen Sara Hagie** (ME08) and **King Travis Schmidt** (MetE, Sioux Falls).

## Student named Millennium Scholar

**Sasha White** (CSc, Kyle) has been named to the Gates Millennium Scholar Program. The Gates

Millennium Scholars Program was created by the Bill and Melinda Gates Foundation in recognition of the increasing diversity in American society and the compelling need to increase access to higher education to reflect the diverse society in which we live. The program provides academically talented African American, American Indian/Alaska Native, Asian Pacific Islander American, and Hispanic American students with an opportunity to complete a college education.

## Student receives Brass Scholarship

**Christopher Dollarhide** (ChE, Pipestone, Minn.) has been named the 2009 recipient of the prestigious Lorin and Mary Brass Leadership Involvement Foreign Experience (LIFE) Award from the School of Mines. Dollarhide will receive a \$15,000 scholarship to study abroad for at least one semester. **Lorin** (MetE75) and **Mary** (CE77) Brass established the scholarship to emphasize the importance of campus leadership and international education experience for students. Dollarhide will study in Kiel, Germany, in Spring 2010 under the European Project Semester program.

## Students attend prestigious conference

Three School of Mines students recently attended the prestigious Gordon Research Conference (GRC) Macromolecular Materials Graduate Research Seminar as part of a select group of international graduate student participants. The students: **Mohammad Al-Omar** (Ph.D. Nano, Jordan), **Shady Awaad** (Ph.D. Nano, Jordan), and **Josiah Reams** (Ph.D. Nano, Rapid City).

## Student displays research at state capitol

**Terence Satchell** (CE, Milford, Neb.) was one of 10 students from colleges and universities across South Dakota invited to display his research during the Pierre Poster Session. Satchell's project, "Dewatering the Deep Underground Science and Engineering Laboratory," examined the removal of ground water in the mine shafts. The poster session was an opportunity for state policy-makers to witness the outcomes of an enhanced research culture on our educational system, as well as for students to learn how decisions related to higher education, including support for research, are made.

## Student wins national contest

**Deanna Shoup** (IS, Rapid City) has been named one of 10 winners of the Association of American Medical Colleges (AAMC) first AspiringDocs.org Video Contest. Participants in the contest were asked to submit a two-minute video explaining why they wanted to become a doctor. Shoup will receive a \$1,000 credit redeemable for AAMC products and services that may be applied toward fees associated with applying to medical school. The goal of the AAMC's AspiringDocs.org campaign is to increase

*Continued on page 77*

# Campus Briefings

## School of Mines hosts largest Career Fair in campus history

Companies from around the country were on the School of Mines campus for the Fall 2008 Career Fair to recruit students for full-time employment and internship and co-op positions.



President **Robert A. Wharton**, Ph.D., **Shashi Kanth** (M.S. MinE 93), director, mining engineering and management, visit the Kiewit booth during the Fall 2008 Career Fair

One hundred and forty-nine employers were registered, making this the largest career fair in campus history. The fair was expanded to two locations in order to accommodate all of the employers wishing to participate. The employers represented 28 states and Canada and included 27 South Dakota employers as well as several others headquartered out-of-state that have operations in South Dakota.

## Professor wins national paper competition

**Dr. Lance Roberts** (CE98), assistant professor, civil and environmental engineering, was selected as the winner of the Deep Foundations Institute (DFI) Educational Trust Young Professor Paper Competition Award for 2008. Roberts received an expenses-paid trip to the 33rd Annual DRI Conference, held in New York City, and an invitation to present his paper, "LRFD for Deep Foundations: Replacing the Traditional Factor of Safety in Design."



## Professor featured in *Nature* article

**Dr. Gerald Grellet-Tinner**, assistant professor, geology and geological engineering and assistant curator, vertebrate paleontology, has been featured in a recent article by the prestigious journal *Nature*. The article focuses on the nation's presumed first paleontological field school



conducted by a tribe. The dig, held on the Standing Rock Sioux Reservation and led by Grellet-Tinner, is credited as a step toward tribes and paleontologists collaborating on dig research and working to decrease ownership disputes.

## School of Mines announces first Gaines Professor

**Dr. David A. Boyles** (Chem78), professor, chemistry, was recently named the first Gaines Professor in the Department of Chemistry at the South Dakota School of Mines and Technology. The Gaines Professorship was established in memory of Dr. Jack Gaines by his children, Holly Yonamine and Brett Gaines, who decided to continue their father's legacy of giving back to the School of Mines.

"I am grateful to Holly and Brett for having established this memorial to their father," Boyles said. "On behalf of the legacy of Jack R. Gaines, I am honored to be selected as the inaugural recipient of the Dr. Jack R. Gaines Professorship by the selection committee, and am likewise honored to transmit the tradition of organic chemistry to my students in both classroom and laboratory."

## Professor awarded third patent

**Dr. Vojislav Kalanovic**, professor, mechanical engineering, has been officially awarded Patent No. 7,431,632 by the U.S. Patent and Trademark Office. The issued patent relates to the Flexible Robot Environment (FRE®), a robotic solution that combines linear mechanical and motor and drive components with proprietary hardware, software, and controls from Control Systems Technologies, LLC, a company owned and operated by Kalanovic. This recognition is the third straight U.S. patent in the area of robotics and automated manufacturing, all three of which have been awarded to Kalanovic.



## Professor named to board of directors

**Dr. Stan Howard**, professor, materials and metallurgical engineering, has been named to the board of directors for the Minerals, Metals & Materials Society (TMS). Howard will serve as the financial planning officer, and has been appointed for three years. He will guide the professional activities of TMS concerning finances, audits, and investments.



# Campus Briefings

## Professor named associate editor of professional journal



Dr. **Andrea Surovek**, associate professor, civil and environmental engineering, has been named to the editorial board of the American Society of Civil Engineers *Journal of Structural Engineering*. The journal is a peer-reviewed academic journal and one of the top journals in the field of structural engineering. As an associate editor, Surovek is responsible for the integrity of the peer review process for articles submitted in the area of metal structures. This includes both recruiting and coordinating peer reviewers as well as maintaining the overall standards of the metals structures content.

## School of Mines joins College Portrait

The School of Mines has joined the South Dakota regental institutions in a national effort to deliver useful, comparable information to prospective students and their families. College Portrait, a new web-based information tool, has been introduced across the nation, and is a visible and important part of the School of Mines website.

College Portrait presents a standardized set of data and information about an institution that prospective students, parents, legislators, and other members of the public can use to understand the essential characteristics of a school. College Portrait is part of the Voluntary System of Accountability (VSA), an initiative undertaken by four-year public colleges and universities nationwide. To view the College Portrait report from the School of Mines, or for more information on the VSA, visit <http://accountability.sdsmt.edu/>.



**Sign up now for School of Mines news updates!**

If you can't wait for the next issue of the *Hardrock* to get your School of Mines news, sign up to receive news and other updates through RSS feeds or by e-mail.

More information is available at <http://news.sdsmt.edu/rss/>

# Publications



Dr. **Donna Kliche** (M.S. Mtro90), research scientist III, Institute of Atmospheric Sciences; Dr. **Paul Smith**, professor emeritus, Institute of Atmospheric Sciences; and Dr. **Roger Johnson**, professor, mathematics and computer science, co-authored the paper "L-Moment Estimators as Applied to Gamma Drop Size Distributions" for the *Journal of Applied Meteorology and Climatology*.

Dr. **Randall Benson** (Ph.D. AEWR06), State Fire Meteorologist and instructor, atmospheric sciences, coauthored the chapter "Climatic and Weather Factors Affecting Fire Occurrence and Behavior" in the book *Wildland Fires and Air Pollution*.



Dr. **P.V. Sundareshwar**, professor, atmospheric sciences, and **Shawn Honomichl** (interdisciplinary sciences, Rapid City) co authored the paper "Nature Versus Nurture: Functional Assessment of Restoration Effects on Wetland Services using Nuclear Magnetic Resonance Spectroscopy" for *Geophysical Research Letters*.



Dr. **Rajesh Sani**, assistant professor; Dr. **Gurdeep Rastogi**, research scientist; Dr. **Sookie Bang**, professor; and Dr. **David Dixon**, chair and professor, all members of the Department of Chemical and Biological Engineering, coauthored the paper "Isolation and Characterization of Cellulose-Degrading Bacteria from the Deep Subsurface of the Homestake Gold Mine" for the *Journal of Industrial Microbiology and Biotechnology*.



The School of Mines is committed to an active research program that expands knowledge, pushes technological and scientific advancement, and contributes to economic development in the state and region.

School of Mines faculty members and researchers received 90 awards totaling more than \$10.1 million during the 2008 fiscal year. The funding came from many different agencies, including the National Science Foundation, the State of South Dakota, NASA, the Department of Transportation, Army Research Laboratory, Air Force Research Laboratory, and many more.

The School of Mines is home to several research institutions and centers. Plans are currently underway to expand the number of graduate degrees and to enhance the technology-transfer process.

Dr. **Scott Ahrenkiel**, assistant professor, nanotechnology, received \$420,000 from the United States Department of Energy EPSCoR for the project, "Lattice-Mismatched III-V Epilayers for High-Efficiency Photovoltaics."



**William Arbegast**, director, Advanced Materials Processing and Joining Laboratory (AMP), and instructor, materials and metallurgical engineering; Dr. **Antonette Logar**, (CSc85) professor, mathematics and computer science; and Dr. **Michael West**, assistant professor, materials and metallurgical engineering, received



\$177,590 in additional funding from the National Science Foundation for the project, "Friction Stir Processing Industry/University Cooperative Research Center."

**Arbegast** also received \$70,000 in additional funding from the Friction Stir Processing Industry/University Cooperative Research Center Memberships for the project, "Design, Analysis, and Performance of 'Built-Up' Aluminum Friction Stir Welded (FSW) and Friction Stir Spot Welded (FSSW) Structures."

Dr. **Sookie Bang**, professor, chemical and biological engineering, and Dr.



**Sangchul Bang**, professor, civil and environmental engineering, received \$200,000 from Samsung Construction and Trade for the



project, "Development of Geo-Biological Dust Control Technique for Construction Sites."

Dr. **David Boyles** (Chem78), Gaines Professor, chemistry, received \$120,000 from the United States Department of Defense — Office of Naval Research for the project, "Novel High-Temperature Polycarbonates for Pulse Power Capacitor Applications."



Dr. **William Capehart**, associate professor, atmospheric sciences and



Dr. **Mark Hjelmfelt** (M.S. Mtro75), chair and professor, atmospheric sciences, received \$112,649 in additional funding from the United States Department of Defense — Armament Research, Development, and Engineering Center (ARDEC) for the project, "Advanced Atmospheric Sciences Technology and Applications to Support NAMK and NAGIK Projects."



Dr. **Lew Christopher**, director, Center for Bioprocessing Research and Development, received \$500,000 in additional funding from the South Dakota Board of Regents for the project, "Center for Bioprocessing Research and Development."



Dr. **William Cross** (MetE84), associate professor, materials and metallurgical engineering; Dr. **Dan**

**Heglund**, chair and associate professor, chemistry; and Dr. **Jon Kellar** (MetE84), chair and Fuerstenau

Professor, materials and metallurgical engineering, received \$89,944 from the South Dakota Department of



Transportation for the project, "Select Testing to Screen Materials for Specification Compliance."



Dr. **Shawn Decker**, director, Center for



Accelerated Applications at the Nanoscale, and Dr. **Jon Kellar**, chair and Fuerstenau Professor, materials and metallurgical engineering, received \$282,000 from the United States Small Business Administration for the project, "Black Hills Nanoscale Materials Institute."

Dr. **David Dixon** (ChemE78), chair and professor, chemical and biological engineering, and Dr. **Duane Abata**, executive director, Center for

## Research Notes *continued*



Bioenergy Research and Development (CBERD), and professor, mechanical engineering, received \$109,000 from the National Science Foundation for the project, "I/UCRC Center for Bioenergy Research and Development."

Dr. **Edward Duke**, manager of analytical services, Engineering and Mining Experiment Station, and professor, geology and geological engineering, received \$235,000 in additional funding from the National Aeronautics and Space Administration for the project, "South Dakota Space Grant Consortium." Dr. **Duke** also received \$18,000 in additional funding from the National Aeronautics and Space Administration for the project, "South Dakota Space Grant Consortium — Exploration Systems Mission Directorate Higher Education 2007."

Dr. **Joseph Fazio**, associate professor, civil and environmental engineering, received \$39,287 from the U.S. Department of Transportation — Federal Highway Administration for the project, "South Dakota Local Transportation Assistance Program."

Dr. **Sidney Goss**, professor, social sciences; Dr. **Andrea Surovek**, associate professor, civil and environmental engineering; and Dr. **Jennifer Karlin**, assistant professor, industrial engineering and engineering management, received \$194,407 from the National Science



Foundation for the project, "ADVANCE IT Start Award: South Dakota WISE Faculty: A Future of Excellence."

Dr. **Linxia Gu**, assistant professor, mechanical engineering, received \$58,536 from the South Dakota Board of Regents for the project, "Stent-Induced Arterial Strain and Stress as a Determinant of Coronary Restenosis."

Dr. **Brian Hemmelman** (EE92), chair and professor, electrical and computer engineering, received \$30,000 from Bamboo, LLC for the project, "A Real-Time, Portable Non-Invasive Monitoring System of Muscle Oxygen and pH in Trauma Patients." Dr. **Hemmelman** also received \$32,504 from the United States Department of Energy for the project, "System Identification (SysID) Research."

Dr. **Jon Kellar**, chair and Fuerstenau Professor, materials and metallurgical engineering, and Dr.



**Keith Whites** (EE86), professor and Steven P. Miller Chair, electrical and computer engineering, received \$274,200 from the National Science Foundation for the project, "The 2010 Initiative: Science-Based Leadership for South Dakota."

Dr. **Scott Kenner** (CE77), professor, civil and environmental engineering, received \$100,000 from the United States Geological Survey for the project, "USGS National Water Quality Assessment Project in South Dakota."

Dr. **Carter Kerk**, professor, industrial engineering and engineering management; Dr. **Jennifer Karlin**, assistant professor, industrial engineering and engineering management; Dr. **Jon Kellar**, chair and Fuerstenau Professor, materials and metallurgical engineering; Dr. **Scott Kenner**, professor, civil and environmental engineering; and Dr. **Stuart Kellogg** (EE82), chair and professor, industrial engineering and engineering management, received \$600,000 from the National Science Foundation for the project, "Tiospaye in Engineering."

Dr. **Alvis Lisenbee**, professor, geology and geological engineering; and Dr. **Arden Davis** (GeolE79), Mickelson Professor, geology and geological engineering, received \$18,380 from the West Dakota Water Development District for the project, "Mt. Rushmore Quadrangle, South Dakota: Aquifer Mapping (1:24,000)."

Drs. **Lisenbee** and **Davis** also received \$13,573 from the West Dakota Water Development District for the project, "Silver City Quadrangle, South Dakota: Aquifer Mapping (1:24,000)."

Dr. **Patricia Mahon**, vice president for student affairs and dean of students, received \$49,805 from the National Highway Safety Administration — South Dakota Department of Public Safety for the project "Driving Safety Prevention Grant." Dr. **Mahon** also received \$10,000 from Black Hills Special Services Cooperative for the project, "Post Secondary Education



Tobacco Prevention Grant.”

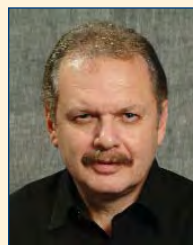
Dr. **Perry Marteny**, former director, Composite and Polymer Engineering Laboratory; Dr. **Gregory Buck**, associate professor, mechanical engineering; Dr. **Hao Fong**, associate professor, chemistry; Dr. **Karim Muci**, associate professor, mechanical engineering; Dr. **Michael Langerman** (ME72), chair and professor, mechanical engineering; Dr. **Daniel Dolan**, professor, mechanical engineering; Dr. **David Boyles** (Chem78), Gaines Professor, chemistry; Dr. **Umesh Korde**, associate professor, mechanical engineering; Dr. **Michael Batchelder**, professor, electrical and computer engineering; Dr. **Brian Hemmelman**, chair and professor, electrical and computer engineering; **Elaine Linde** (ME89), instructor, electrical and computer engineering; Dr. **Vojislav Kalanovic**, professor, mechanical engineering; Dr. **John Weiss**, professor, mathematics and computer science; Dr. **Lidvin Kjerengtroen**, professor, mechanical engineering; Dr. **William Cross**, associate professor, materials and metallurgical engineering; and Dr. **Jon Kellar**, chair and Fuerstenau Professor, materials and metallurgical engineering, received \$3,392,600 from the United States Department of Defense — United States Army Research Laboratory for the project, “Advanced Materials and Processes for Future Combat Systems.”

Dr. **James Martin** (Geol71), professor, geology and geological engineering, received \$7,000 from the United States Department of Army — United States Army Corps of Engineers for the project, “Collection and Field Documentation of Plesiosaur Exposed.”

Dr. **Dana Medlin**, Nucor Professor, materials and metallurgical engineering; and Dr. **Jon Kellar**, chair and Fuerstenau Professor, materials and metallurgical engineering, received \$89,141 in additional funding from Radiance Technologies, Inc. for the project, “Advanced Electronic Rosebud Integration (AERI) Research and Development Program.”

Dr. **Todd Menkhaus**, assistant professor, chemical and biological engineering, and Dr. **Hao Fong**, associate professor, chemistry, received \$315,269 from the National Science Foundation for the project, “Fabrication and Bioseparation Studies of Adsorptive Nanofelts Made from Electrospun Cellulose and/or Carbon Nanofibers.”

Dr. **Andre Petukhov**, professor and chair, physics, received \$30,000 from the National Aeronautics and Space Administration (NASA) for the project, “Studies of Spin-Spin Interaction in SI: LI Quantum Computing System.”



Dr. **Jan Puszynski**, professor, chemical and biological engineering;



Dr. **Hao Fong**, associate professor, chemistry; and Dr. **Phil Ahrenkiel**, assistant professor, nanoscience and nanoengineering, received \$269,709 from the University of South Dakota for the project, “Establishment of the S.D. Catalysis Group at USD and SDSM&T — Addressing Basic Research Needs for Solar Energy Utilization.”

Dr. **Lance Roberts** (CE98), assistant professor, civil and environmental engineering, and Dr. **Andrea Surovek**, associate professor, civil and environmental engineering, received \$84,792 from the South Dakota Board of Regents for the project, “Recycled Plastic Deep Foundation System for Lightly Loaded Structures in Expansive Shale.”



Dr. **Roberts** also received \$53,251 from the United States Department of Transportation for the project “LRFD Deep Foundation Design Method” and \$30,000 from the Federal Highway Administration — South Dakota Department of Transportation for the project, “Evaluation of Warm Mix Asphalt Concrete Pavement in South Dakota Conditions.”

Dr. **William Roggenthen** (GeolE69), professor, geology and geological engineering, received \$1,193,910 from the University of California — Berkeley for the project, “Deep Underground Science and Engineering Laboratory (DUSEL) Site Selection and Technical Design Development.”



Dr. **Rajesh Sani**, assistant professor, chemical and biological engineering; Dr. **James Stone**, associate professor, civil and environmental



engineering; and Dr. **Larry Stetler** (GeolE79), associate professor, geology and geological engineering, received \$48,750 from the



## Research Notes *continued*

National Science Foundation for the project, "Acquisition of a Kinetic Phosphorescence Analyzer for Uranium-focused Research and Education."

Dr. **Sani** also received \$87,000 in additional funding from the U.S. Department of Energy for the project, "Biogeochemical Mechanisms of Nanocrystalline Uraninite Oxidation by Fe(III)-(hydr)oxides."

Dr. **James Sears**, director, Additive Manufacturing Laboratory, received \$50,000 from Lockheed Martin Aeronautics for the project, "Deposition Technique Development."



**Dale Skillman** (ME73), interim vice president for research; Dr. **Gregory Buck**, associate

professor, mechanical engineering; Dr. **Michael Langerman**, chair and professor, mechanical engineering; Dr. **Daniel Dolan**, professor, mechanical engineering;

Dr. **Umesh Korde**, associate professor, mechanical engineering; Dr. **Lidvin Kjerengtroen**, professor, mechanical engineering; Dr. **William Cross**, associate professor, materials and metallurgical engineering; **William Arbegast**, director, Advanced Materials Processing and Joining Laboratory (AMP), and instructor, materials and metallurgical engineering; Dr. **Haiping Hong**,



research scientist III, materials and metallurgical engineering; and Dr. **Robb Winter**, professor, chemical and biological engineering, received \$2,823,833 in additional funding from the United States Department of



Defense — U.S. Army Research Laboratory for the project, "Advanced Materials and Processes for Future Combat Systems."

Dr. **Steve Smith**, associate professor, nanoscience and nanoengineering, received \$200,000 in additional funding from the United States Department of Energy — National Renewable Energy Laboratory for the project, "Development of Super-Resolution Optical Microscopy Techniques for Visualization of Plant Cellular and Cellulose Enzyme Activity."

Dr. **James Stone**, associate professor, civil and environmental engineering, and Dr. **Larry Stetler**, associate professor, geology and geological engineering, received \$83,000 in additional funding from the United States Environmental Protection Agency — United States Department of Agriculture — Forest Service for the project, "South Dakota

Uranium Mining Impacts Evaluation."

Dr. **Stone** also received \$36,930 from the United States Department of Interior — National Park Service for the project, "Assessment of Atmospheric Mercury Deposition at Select Northern Great Plains National Parks."

Dr. **P.V. Sundareshwar**, assistant professor, atmospheric sciences, received \$94,916 from the National Science Foundation for the project, "Collaborative Research: Exploration of the Mechanistic Basis and Biogeochemical Implications of Differential Nutrient Limitation Among Trophic Levels." Dr.



**Sundareshwar** also received \$40,000 from the United States Geological Survey for the project, "Collection and Analyses of Soil Samples From Prairie Pothole Wetlands in the Prairie Pothole Region."

Dr. **Andrea Surovek**, associate professor, civil and environmental engineering, received \$12,000 in additional funding from the National Science Foundation for the project, "Collaborative Research: Structural Mechanics of Steel Columns and Beam-Columns Under Fire Loading."



Dr. **Michael Terry**, assistant professor, geology and geological engineering, received \$75,000 from the United States Department of State for the project, "Educational and Research Exchanges in Science with Mongolia."

Dr. **Karen Whitehead**, provost and vice president for academic affairs, received \$32,000 from the University of Alaska — Anchorage for the project, "Partnerships for Innovation (PFI)."



Dr. **Keith Whites**, professor and Steven P. Miller Chair, electrical and computer engineering; **Anthony Amert** (EE04), research engineer II, electrical and computer engineering; and Dr. **Dimitrios Anagnostou**, assistant professor, electrical and computer engineering, received \$360,000 from the National Science Foundation for the project, "Multi-Scale Artificial Dielectric Materials and Their Applications."



## Rapid City, South Dakota — Spirit & Pride Adventure Weekend

The fall semester welcomed a group of rockin' freshmen at the September 1, 2008, Labor Day BBQ at the home of Tami and **Tim Vottero** (Chem84) with the Spirit & Pride group along with a few alumni. As part of Adventure Weekend, these freshmen spent the afternoon jammin' with "Rock Band" in the Vottero's basement and filling up on a home cooked meal before settling into the dorms for the semester.

Adventure Weekend includes a weekend of activities focused around a group theme and in support of all students enrolling and returning to campus after the summer break. Special thanks go to vice



*Basement Spirit & Pride Hard Rockers*



*BBQ Rockers backed up by alumni **Dusty Gilyard** (CE81), **Jon Kellar** (MetE84), and **Tim Vottero** (Chem84) with Dr. **Pat Mahon** vice president for student affairs and dean of students, front stage*

president for student affairs and dean of students, Dr. **Pat Mahon**, for her keeping the *Spirit & Pride* group going for several years running. Rock on, Hardrockers!

## Rapid City, South Dakota — School of Mines President's Picnic

**Robert A. Wharton**, Ph.D., the university's 18th president, and first lady Dr. Carolyn Fassi Wharton launched the fall semester with the traditional President's Picnic on September 3, 2008, in the campus quad. Officially assuming leadership of the School of Mines on July 1, the Whartons have embraced the traditions at the School of Mines, including the time-honored Green Beanies to commemorate their "frosh" year.

The picnic was attended by hundreds of hungry students — freshmen and upper classmen alike — along with many faculty, staff, and alumni. The post-picnic activities included the senior-led teaching of the school song to a sea of green-beanieed freshmen. Special thanks go to the efforts



*Frosh Bob and Carolyn sport their beanies with pride*



*Seniors lead a sea of green in song*

# area MEETINGS

of the local P.E.O. (Philanthropic Educational Organization) chapter for their many hours making the beanies and hats that help keep our traditions alive each fall. Also, a special welcome goes to the Whartons as new additions to the School of Mines family.

## Evansville, Indiana

**Larry Simonson's** (EE69) ABET visit to the University of Evansville provided an opportunity for a local gathering of Mines alumni living in Evansville, Indiana on September 16, 2008.



*Ken Luckhurst (ME74), Mike Heil (MetE77), and Kim and Rob Stevens (MetE74).*

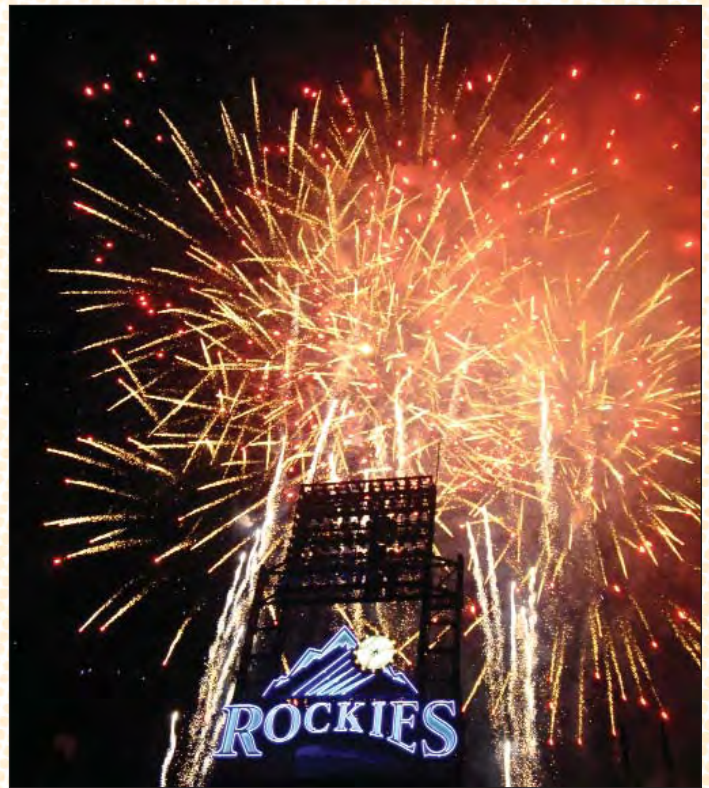
## Denver, Colorado — Mines Night at the Rockies

The Colorado Rockies and Front Range alumni welcomed new School of Mines President **Robert A. Wharton**, Ph.D., and First Lady Dr. Carolyn Fassi Wharton to Hardrocker Night at Coors Field on September 19, 2008, during the Rockies vs. Arizona Diamondbacks game. Alumni were treated to a great game with the Rockies victory adding to an



*Hardrockers cheer on the Rockies at Coors Field*

already enjoyable evening of mixing with fellow Hardrockers. The evening finished with a bang during a spectacular fireworks display above the centerfield scoreboard and Mile High skyline. Thanks go to **Jill Nelson** (MinE82) for organizing this second annual event. The third annual Hardrocker Night at Coors Field is scheduled for Friday, September 25, 2009, during the Rockies vs. St. Louis Cardinals game and will include a pre-game BBQ and fireworks after the game. See you there!



*Mile High Fireworks at Coors Field*

## Las Vegas, Nevada — MINExpo INTERNATIONAL®

Every four years, tens of thousands of mineral industry representatives gather for MINExpo INTERNATIONAL® in Las Vegas, Nevada. The 2008 convention included a special Alumni & Friends Hospitality event sponsored by Kiewit Mining Group, along with support from the School of Mines Departments of Mining Engineering and Management and Metallurgical Engineering, Foundation, and Alumni Association. Convention attendants gathered at the Las Vegas Hilton on September 22, 2008, to mix and mingle with School

of Mines faculty, staff, alumni, and students, including School of Mines President **Robert A. Wharton**, Ph.D. and Alumni President Dr. **Ralph Wagner** (CE75). The mining students, faculty, and staff also staffed a booth for several days in the lobby of the Las Vegas Convention Center, promoting the School of Mines. Special thanks go to Kiewit Mining for their generous contribution to this event.



Alumni President **Ralph Wagner** (CE75) (left) and School of Mines President **Robert A. Wharton**, Ph.D. (right) pose with Past Alumni President **Tom Zeller** (ME70)



Alumni **Lee Rice** (M.S. Geol70), **Dennis Bryan** (GeolE70), and **Dave Shaddrick** (M.S. Geol71) taking in the Kiewit hospitality



**Conlan Nelson** (MinE, Thornton, Colo.) with mom **Jill Nelson** (MinE82)

## Rapid City, SD — Fall Career Fair

For the first time in campus history, the School of Mines Fall Career Fair was held in two locations — the King Center Goodell Gymnasium and the Surbeck Center Ballroom — in order to accommodate more than 145 employers in attendance. The Fall Career Fair, held September 30, 2008 (during M-Week), also attracted more than 100 alumni representing their companies and organizations. The Career Center coordinates semi-annual career fairs — fall and spring — and provides comprehensive services for students, employers, and alumni. If you would like more information on the center's services and events, please call the Career Center staff at (605) 394-2667 or visit the Career Center website at <http://sdmines.sdsmt.edu/career>.



King Center's Goodell Gym filled for Fall Career Fair



South Dakota Department of Transportation rep and alumnus **Steve Johnson** (CE83) takes a break at the Alumni Association booth

# area MEETINGS

## Rapid City, South Dakota — M-Week 2008

Seventy-four years ago last fall, a group of alumni gathered on "M-Day" — October 5, 1934 — to establish our Alumni Association and hold the first "Alumni Homecoming Banquet" at the Alex Johnson Hotel. This event was later chronicled in the first *Hardrock*, published by the Alumni Association on October 29, 1934, and authored by **Guy March** (EE22). On "M-Day" — October 4, 2008 — the Alumni Association and Alumni President Dr. **Ralph Wagner** (CE75) promoted the first annual "M-Day Muster" to kick-off our 75th year as an organization. Our vast group of Miners was encouraged to "muster" or gather in small groups



President **Robert A. Wharton, Ph.D.** signs senior hats at the Black List breakfast



Seniors (l-r): **Cody Horner** (ME, Wagner), **Collin Rogers** (MEM08), **Caleb Bestgen** (MEM08), **Sara Hagie** (ME08), **Jade Herman** (IS08), **Ashley Johnson** (IE, Miller), **Mike Volosin** (MEM, Alta Loma, Calif.), **Jess Griffith** (ChE, Sioux Falls), **Chance Gambrel** (ME08), **Cass Groen** (CE, Edgemont), **Mike Grave** (ME, Hartford), and **Nicolle Paulson** (CE, Buffalo, Minn.)

for food, drink, and remembrance of their years at the School of Mines.

Although no photos were submitted from outside Rapid City, there was plenty of "mustering" during M-Week 2008 as students and alumni went for the gold with an Olympic theme. "You Can't Put Out Our Flame" was promoted among the students in honor of the 2008 Summer Olympic Games. Frosh and senior crews did a clean and sweep of M-Hill, along with the time-honored setting of the senior plaque. The M-Week Picnic and Hill Climb drew a gold-medal crowd, and the M-Day Parade finished at O'Hara Stadium in time to witness an impressive Hardrock M-Day win over Mayville State, 46-7.

Hardrock Hall of Fame inductees were introduced at halftime. Inductees **Joe Corbett** (GeolE82) for



Alumni presidents - present, past, and future: **Ralph Wagner** (CE75), **Marlene Nelson** (ME74), **Paul Gnirk** (MinE59), and **Mike Langerman** (ME72)



Alumni Parade Cadillac piloted by Past President **Tom Zeller** (ME70), co-piloted by Michael Wagner with passengers **Debbie** and **Ralph Wagner** (CE75), 2009 Alumni President

# area MEETINGS



Front row (l-r): 2008 Homecoming King **Travis Schmidt** (MetE, Sioux Falls), Homecoming Queen **Sara Hagie** (ME08); **Mike Grave** (ME, Hartford); Grubby; Debbie, Michael, and **Ralph Wagner** (CE75) backed up by the "Hardrockers"



Soon to be freshmen form an "M" on Dunham Field



Hall of Fame Inductees (l-r): **Joe Corbett** (GeolE82) for football; **Duff Erickson** (MinE55) representing the undefeated 1951 Hardrocker football team; **Jack Hunter II** (former staff) for coach; **Lisa Zacher** (Chem85) for all-around; **Derek Knapp** (CE94) for men's basketball; and **Mark Huber** (CE81) for track and cross country

football; **Derek Knapp** (CE94) for men's basketball; **Lisa Zacher** (Chem85) for all-around; **Mark Huber** (CE81) for track and cross country; **Jack Hunter II** (former staff) for coach; and the undefeated 1951 Hardrocker football team were honored later that evening at the Hardrock Club Hall of Fame Banquet in the Christensen Hall of Fame. The annual Student Alumni Connection golf outing wrapped up the weekend on a sunny Sunday following M-Day. Thanks go to all who help keep our Hardrocker tradition and spirit alive!



SAC Golf Tournament Gold Medal Team (l-r): **Derek Suhr** (IE07), **Brian Davis** (IE, Lead), **Matt Griffith** (CSc99), and **Colter Burleson** (ME, Newcastle, Wyo.)

## Salt Lake City, Utah

On October 10, 2008, President **Robert A. Wharton**, Ph.D., Dr. Carolyn Fassi Wharton, and **Larry Simonson** (EE69) met with School of Mines alumni and toured L-3 Communications in Salt Lake City, Utah.



President **Robert A. Wharton**, **Susan Opp** (EE85), and Dr. Carolyn Fassi Wharton

# area MEETINGS



Front row (l-r): **Nancy Kulpaca-Finley** (EE83), **Margo Helms** (ME87), **Susan Opp** (EE85), **June Alexander Knight** (CSc96), **Judy Patterson** (EE75). Back row (l-r): **Warren Rose** (CSc03), **Joe Midzak** (CSc08), **Matt Roher** (CSc05), **Bill McIntyre** (EE78), **Larry Simonson** (EE69), **Greg Thompson** (EE78), **Dr. Carolyn Fassi Wharton**, **Jim Boesch** (EE83), **President Robert A. Wharton, Ph.D.**, **Bob Olson** (CE74), **Anthony Smith** (IE06).

## Bellevue, Washington

Immediate past Alumni President **Marlene Nelson** (ME74) organized a tasty event on October 17, 2008, at Salud! in the local Whole Foods. Several alumni expressed appreciation for this atypical venue and special menu. Chef Joy shared her culinary tips with multiple tapas dishes. Thanks go to Marlene and all of the alumni for spicing up a rainy evening in the Pacific Northwest.



Front row (l-r) : **Larry Simonson** (EE69), **Michelle Winker**, **Greg Winker** (GeolE80), **Chef Joy**, **Susan Larkin** (EE08), **Marlene Nelson** (ME74), **Kara Kyro** (Steve Elrod's guest); Back row: **Tom Corcoran** (CE83), **Pat Schaefer** (CSc06), **Dave Bowen** (Chem71), **Charley Chambers** (ME69), **Steve Elrod** (EE81), **Vernon Abild** (EE50), **Pat Abild**, **Leslie Chambers**, **Tim Vottero** (Chem84)



*Chef Joy serves up one of the many tapas courses to alumni*

## Edmonds, Washington

A beautiful day, good food, and good company was served up at Arnie's Fall Festival of Prawns on October 18, 2008, in Edmonds, Washington. A great cross-section of alumni and friends from the Puget Sound area spent a relaxing and warm-hearted fall day together, including news from campus via **Dr. Larry Simonson** (EE69) and **Tim Vottero** (Chem84). **Marlene Nelson** (ME74) encouraged all to keep networking and gathering with alumni in the area. Thanks to all who ventured out on this Saturday afternoon.



Seated (l-r): **Dave Robertson** (EE46), **Caroline Zebrowski** (ME85), **Asleigh Roth** (future Hardrock), and **Marlene Nelson** (ME74); Standing (l-r): **Susan Williams** (ME85), **Jack Meeker** (EE47/ME48), **Vernon Abild** (EE50) and **Pat, John Meeker**, **Geir Vik** (EE86), **Roger Ollenburt** (ME58), **Skip Bush** (CE59), **Robert Bangs** (CE53) and **Mary Lou**, **Tim Vottero** (Chem84), **Dale Novstrup** (CE73), and **Tara Roth** (IE92).



*John Meeker, **Marlene Nelson** (ME74), and **Jack Meeker** (EE47/ME48) share a hug*



***Steve Morgenstern** (ME83) with dad **Mike Morgenstern** (MinE76)*

## Silverdale, Washington

The Yacht Club Broiler in Silverdale, Washington, was the perfect fall setting for an evening of fine dining and friendly conversation. Area vice president and good friend **Steve Morgenstern** (ME83) greeted guests from across the waters and across the country on this October 18, 2008, event. After dinner, Dr. **Larry Simonson** (EE69), **Tim Vottero** (Chem84), and **Marlene Nelson** (ME74) gave everyone an update of Hardrocker happenings in South Dakota. The Bremerton/Silverdale area is always a welcome trip while in the Pacific Northwest, especially on a beautiful fall evening.



*Front row (l-r): **Vernon Abild** (EE50), **Curt Chenoweth**, **Dr. Larry Simonson** (EE69), and **Mike Morgenstern** (MinE76); second row: **Pat Abild**, **Marlene Nelson** (ME74), and **Steve Morgenstern** (ME83); third row (l-r): **Steve Elrod** (EE81), **Kim and Brian Scholl** (EE02); fourth row (l-r): **Chris Blankenbaker** (CE01), **Christy** (ME02) and **Shawn Wibe** (ME02); fifth row: **Jake Donnelly** (EE08), **Linda Barnes** (Math74), and **Troy Wormsbecker** (ChE07); back row (l-r): **Mathew Sullivan** and **Tim Vottero** (Chem84)*

## Portland, Oregon

Sunday morning, October 19, 2008, found Dr. **Larry Simonson** (EE69) bidding farewell to the Puget Sound and on the road again headed south. Joined by **Marlene Nelson** (ME74), they headed for Portland Bridgeport Brewpub to join area alumni, including event organizer **Michelle Vondenkamp** (CSc89). Sunday brunch and a couple of hours together sharing the news, renewing old and making new alumni acquaintances, and sharing Mines memories was a great way to spend the afternoon. The group has an interest in keeping the area events going, and is planning another one in early summer.



*Seated (l-r): **Roy Fox** (CE43), **Christine and Julia Watson** (future Hardrocker); standing: **Marlene Nelson** (ME74), **Jim and Michelle Vondenkamp** (CSc89), **Jim Watson** (M.S. TM94), **Troy Porter** (EE05), and **Lorene and Doug Stalheim** (MetE80)*



© Crazy Horse Memorial Foundation  
Photo by Johnny Sundby



During the summer months, Crazy Horse Memorial is illuminated during the nightly “Legends in Light” laser show. Nearly one million people visit the in-progress mountain carving each year, which will measure an awe-inspiring 641 feet long by 563 feet high upon completion.

For more information about Crazy Horse Memorial, visit [www.crazyhorsememorial.org](http://www.crazyhorsememorial.org). For more information about Johnny Sundby Photography, visit [www.johnnysundby.com](http://www.johnnysundby.com).

# area MEETINGS

## Minneapolis/St. Paul, Minnesota

The Twin Cities area alumni had the opportunity to meet and visit with President **Robert A. Wharton**, Ph.D., at three events on November 21 and 22. A Friday luncheon took place near the 3M campus, which the following people attended: **Jim Curnow** (ChE64), **Keith Miller** (CE88), **Bob Ringgenberg** (MetE74), **Jim Hildebrand** (ChE81), **Bob Deis** (EE72), **Glen Giacoletto** (MS Chem78), **Damon Powers** (GeolE86), **Ray Chaussee** (ChE63) and Jeane, **Marv Hoshaw** (CE66) and Ruth, **Brad Johnson** (EE92) and President Robert A. Wharton, Ph.D.

Friday evening, a formal dinner affair at the Town and Country Club was arranged with the help of **Lowery Smith** (GeolE51). Thank you, Lowery, for doing this. Those in attendance were: **Tony Rea** (ME93), Barbara Zell, Lowery Smith and Mary Ann, **Chris Woods** (CE48) and Alice, **Eric** (EE70) and **Kathy Stechmann** (Math69), **Jim Neuharth** (ChE68) and Bev, **Bill Betten** (Phys77/EE77) and Susan, **Keith Graham** (Phys51) and Helen, **Robert Kooiman** (ME52) and Clare, **Mark** (ChE79) and **Melanie Fiegen** (CE79), **Brad Johnson** (EE92), and President Robert A. Wharton, Ph.D.

On Saturday morning President Robert A. Wharton and 22 alumni and spouses enjoyed the hospitality

of **Doug** (ChemE82) and Susan **Fluke** at their home on the bank of Lake Calhoun in Minneapolis. Their son Zach provided background music on their grand piano while the chef made omelets and pancakes to order. Those that enjoyed the morning together are pictured here.

## Lead, South Dakota

The Lead Roundhouse, which served the Black Hills and Fort Pierre Railroad as a repair and maintenance shop for railroad engines in the early 1900's, has been preserved as a historical landmark. **Duane Sander** (EE60) and Phyllis are the owners of the Lead Roundhouse and held an open house for guests in December 2008. Phyllis was raised in Lead and oftentimes visited the Lead Roundhouse as a child. Located next door to the Golden Hills Inn and Convention Center, the Lead Roundhouse features a Living Map Theater, a multimedia presentation covering the Black Hills Gold Rush with a 24 x 28 foot 3D map. The 35-minute movie, with historical photos, actual film, and reenactments, tells the gold rush story while lights on the map show where the events occurred. Other attractions at the Lead Roundhouse include the Roundhouse Restaurant, where guests dine in an authentic early 1900's dining car; a Vintage Caboose Gift Shop; and a Good as Gold Gift and Antique Shop.



Front row (l-r): Kat Drefs, Arlene and **Larry Dugdale** (GenE47), Zach, Susan, and **Doug Fluke** (ChE82), **Brad Johnson** (EE92); standing: **Rose** (CSc86) and **Scott Pekarek** (EE86), **Steve Jeschke** (ChE73), **Jim Bump** (CE57) and **Connie**, **Marty Drefs** (ME92), **Steve Vanderboom** (CE74), **Fred Beauvais** (CE66), **Louie Naber** (ME84) and **Kristi**, **Doug** (ChE83) and **Manalee Johnson** (Chem82), President **Robert A. Wharton**, Ph.D., **Loralie** and **Laurie** (ChE75) **Chamberlin**, **Vickie** and **Mike Selzer** (EE74), **Terry** and **Steve Newlin** (CE75).



**Duane Sander** (EE60) and **Phyllis**

## Rapid City, South Dakota — Fall Graduation

Despite a December cold snap, the Rushmore Plaza Civic Center Theater was a warm respite for the

158th commencement ceremony on December 20, 2008. More than 100 graduates received associate's, bachelor's, master's, and doctoral degrees. Alumnus **William F. Pearson** (CE64) delivered a meaningful and appropriate message to the graduates that he called "The Leaders of the World." His message revolved around living "The Golden Rule" and how these young leaders need to continue to learn and help those less fortunate. Prior to his retirement in 1994, Admiral Pearson served as assistant surgeon general and chief engineer of the U.S. Public Health Service.

**Jason Fields** (ME08) represented the student body with poise and intent. Jason, originally from Milbank, South Dakota, has been involved as a member of Baja SAE since his freshman year, and served as its team captain for two years. He served as student chairman for the Center of Excellence for Advanced Manufacturing and Production (CAMP) for two years. Fields was also active on the Leadership Development Team (LDT) as a member and co-chair, the Society of Automotive Engineers (SAE) as a member and vice-president, Intervarsity Christian Fellowship (IVCF), Mechanical Engineering Student Advisory Board, and as a School of Mines Resident Assistant. Jason is pursuing his career in mechanical engineering at Polaris Industries, Inc. in Wyoming, Minnesota.

Commencement authority and inspirational comments encouraging graduates to remain supportive of education were delivered by Regent **Kathryn Johnson** (Ph.D. Geol86). Dr. Johnson emphasized the decline in U.S.-born college graduates during the past three decades, the decline in the percent of state funding as a portion of university budgets, and the need for these new alumni to stay involved in education.

The ceremony concluded with the 2008 Distinguished Alumni Awards presented to five alumni for outstanding contributions in their professions and communities. Alumni Executive Vice President and Past President Dr. **Paul Gnirk** (MinE59) introduced the recipients, three of which were in attendance, and shared personal comments about each alumnus. The 2008 recipients are **James Abourezk** (CE61), **Randall Baker** (MinE86), Dr. **John Collier** (ChE61), Dr. **Monte Dirks** (MetE74), and **Ronald Kiehn** (EE50). Each recipient echoed the tremendous advice and encouragement of the previous speakers in their comments to the new

alumni in the audience. Since its inception in 1998, 52 graduates have been honored with this award. Complete citations for the 2008 recipients are posted under the Distinguished Alumni Award links on the Alumni Association webpage <[www.sdsmt.edu/alumni](http://www.sdsmt.edu/alumni)>, along with a list of previous recipients.

The day before graduation, Distinguished Alumnus and Florida State University (FSU) Professor Dr. **John Collier** (ChemE61) and FSU Dean of Human Sciences Dr. Billie Collier presented to a group of students, faculty, staff, and alumni on the topic "Hands-on Whisky Making in Scotland" during their visit to campus. The presentation covered the science and engineering of this fascinating process, along with the local color of Scotland. While at the University of Tennessee-Knoxville, John, then chemical engineering department head, and Billie, then associate vice chancellor, cooperated with the Bruichladdich Distillery on Islay in Scotland in developing a hands-on whisky making class in June 2003, which has been repeated in May 2004, May 2005, June 2006, and June 2007. Special thanks go to the Colliers and congratulations go to all of our graduates and distinguished alumni.



*Drs. Billie and **John Collier** (ChE61) share the science of Scotch whisky*

## Pasadena, California

Joanne and **Fred Fletcher** (EE74) hosted a New Year's Eve party for fellow Miners at their home in Pasadena, California, near the Rose Bowl Parade route.

# area MEETINGS



Joanne and **Fred Fletcher** (EE74), **Steve Wider** (GeolE71) and Katie, **Bob O'Brien** (ME72), Linda Rose, and **Mark Fischbach** (ME73)

## Pierre, South Dakota

The Pierre Alumni Planning Committee keeps making the Annual SDSM&T Alumni Tailgate Party in Pierre bigger and better. This year's 14th Annual event brought 92 alumni, friends, spouses, and kids to the American Legion Cabin in Pierre for a fun-filled afternoon. New attractions for the tailgate party this year included watching the football games on both a huge screen set up by "electrical wizard" **Dale Healey** (IE06) and a new 42-inch flat panel television that "bookie" **Dan Painter** (CE90) arranged to be the grand prize for the winner of the football game boards.

After welcomes from Alumni Association Director **Tim Vottero** (Chem84), President **Robert A Wharton**, Ph.D., and Alumni President Dr. **Ralph Wagner** (CE75), the crowd was ready to serve as judge and jury for the new cooking contests that were redesigned last year. After the recount by the auditing committee of **Nayyer Syed** (Geol94) and **Mike Cepak** (MinE76), the lucky winners were:

**Crock Pot Classics**: first place — **Marc Macy** (GeolE04) for "Grubby's Golden Beer Cheese



President **Robert A. Wharton**, Ph.D., addresses the troops

**Chowder**"; second place — **Darold Krein** (GeolE82) for "Grubby's Cajun Chili"; and third place — **Al Berreth** (CE76) for "Faux Pirner."

**Miner's Miscellaneous Masterpieces**: first place — **John Childs** (CE92) for "Grubby's Famous BBQ Beef"; second place — **Mike Perkovich** (MinE83) for "T. Rex Ribs"; and third place — **Dale Healey** (IE06) for "Miner's Mussolini Meatballs."

**Gold Diggers Delights**: first place — **John Childs** (CE92) for "Miner's Pecan Cheesecake"; second place — **Dale Healey** (IE06) for "Grubby's Oatmeal Delights"; and **Tracy Painter** (CE91) for "24 Carat Cake."

Alumni Executive Vice President Dr. **Paul Gnirk** (MinE59) and **Steve Pirner** (CE72) made sure the crowd remained entertained during half-time and between games with their famous "Everyone Wins a



Newbie **Joe Healy** (EE07) pals with veteran **Wally Larson** (MinE53)



Brothers squared — **David Gnirk** (ME74) and **Paul Gnirk** (MinE59) with **Duane Quiett** (ME74) and **Doug Quiett** (ME73)

# area MEETINGS

Door Prize" routine. There was even a special door prize drawing for all the kids. With School of Mines



Crock Pot Classics winners: **Marc Macy** (GeolE04), **Darold Krein** (GeolE82), and **Al Berreth** (CE76)



Miner's Miscellaneous Masterpieces winners: **John Childs** (CE92), **Mike Perkovich** (MinE83), and **Dale Healey** (IE06)



Gold Diggers Delights winners: **John Childs** (CE92), **Dale Healey** (IE06), and **Tracy Painter** (CE91)

shirts, shot glasses, and other hard-to-find treasures being given away like candy in a drug store, the smiles in the crowd grew larger yet. However, **John Weeldreyer** (GeolE00) had the biggest smile of all, as he won not only the grand door prize of a Jon Crane print of the "Old Standby Mill" near Rochford, but he also won the 42-inch television. We hope he bought a lottery ticket on the way home too.

If you are anywhere near Pierre on January 9, 2010, please join the fun for the 15th Annual Tailgate



**John Weeldreyer** (GeolE00) with the game winning (TV) smile



The 14th Annual Pierre Tailgate group



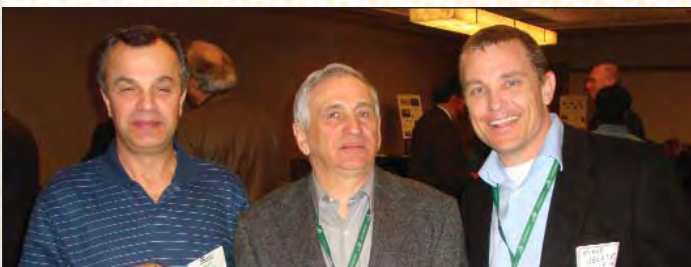
After Hours Club: **Zane and Steve Pirner** (CE72), **Paul Gnirk** (MinE59), **Ralph Wagner** (CE75), and **Vern Bump** (GeolE61)

# area MEETINGS

Alumni Party and try your luck. You may be a big winner too!

## Denver, Colorado — SME Annual Meeting and Exhibit

Denver, Colorado, hosted the 2009 SME Annual Meeting and Exhibit and the 111th National Western Mining Conference, including the annual SDSM&T Alumni SME Social on Tuesday, February 24, 2009, at the Hyatt Regency Denver. A robust crowd of



*Dr. Nuri Uzunlar (Ph.D. Geol93) director, Black Hills Natural Sciences Field Station and associate professor, geology and geological engineering; Dr. Zbigniew Hladysz, professor, mining engineering and management; and Steve Uecker (MinE97)*



*Padeep Chintalapati (GeolE08) and Dr. Arden Davis (GeolE79), Mickelson Professor, geology and geological engineering*



*Maurie Fuerstenau (MetE55) and Dr. Jon Kellar (MetE84), chair and Fuerstenau Professor, materials and metallurgical engineering*

alumni and friends munched, mixed and mingled for hours, thanks to our generous sponsors — Peabody Energy, Komatsu America Mining Division, and Barrick Gold of North America. Our very own traveling minstrel, Foundation Vice President **Brad**



*Shashi Kanth (M.S. MinE93), director, mining engineering and management and Karen Jass (MinE81)*



*Earl Hoskins (MinE56) with Sharon and Tom Zeller (ME70)*

**Johnson** (EE92), strummed a few clever sing-along tunes for everyone that helped keep the party going. We look forward to next year's annual event in the warmer climate of Phoenix, Arizona, in February 2010.

## Rapid City, South Dakota — 52nd Annual Alumni President's Dinner

It was a sweetheart evening at this year's 52nd Annual SDSM&T Alumni President Dinner on February 14, 2008. The 2009 international alumni president, Dr. **Ralph Wagner** (CE75), is our 61st Alumni President since the Alumni Association began in 1934, and one of three Clark, South Dakota, natives to be alumni president in recent years.

Conveying profound humility in his message to

## area MEETINGS

guests at the dinner, Wagner commented that “the event is really a celebration of our association.” Given some of the worst economic times in the nearly 75-year history of our Alumni Association and in our country, Wagner also encouraged attendees that we have a “silver and gold lining” among our alumni — their generosity in supporting our alma mater and their skill in solving problems in a troubled world.

He continued to share that a recent benchmarking survey placed our association at or above several peer group organizations in many ways, except for external support. In many cases it is the intangibles that makes our association strong, Wagner added, invoking Einstein’s sign that hung in his office at Princeton that stated “Not everything that counts can be counted, and not everything that can be counted counts.” Then he paraphrased Max Ehrmann’s prose poem “Desiderata” (Latin: “things desired;” circa 1927) with the notion that School of



*The men of RESPEC (l-r): Tom Zeller (ME70), Kirby Mellegard (EE72), Leo Van Sambeek (MinE72), Paul Gnirk (MinE59), Gary Callahan (ME70), and Ralph Wagner (CE75)*



*Michael, Debbie, and Ralph Wagner (CE75)*



*Ralph Wagner (CE75) and Steve Weiland (CE76)*

Mines alumni are drivers by nature, in some sense “rambling wrecks” in fact, that have humble beginnings and go on to become quite successful.

He closed with a sentiment straight from the tables of his current hometown of Las Vegas, Nevada. He is betting on a bright future — on our students, faculty, staff, and alumni — to advance the interests, influence, and reputation of the South Dakota School of Mines and Technology. Then guests were treated to the lovely sounds of the School of Mines Master Chorale directed by Dr. **James D. Feiszli**. It was indeed a night of sweet notes and sentiments. Congratulations to Ralph and special thanks to his wife, Debbie, and son, Michael, for making time to join this Valentine’s Day celebration.



*Ralph receives a Valentine from Alumni Director Tim Vottero (Chem84)*



# class NOTES

## 1930s

Lucille Beach, widow of **Marvin D. Beach** (Ex38), stopped by the Alumni Office with her daughter recently. Marvin attended the School of Mines, studying to be a civil engineer. However, he was unable to graduate as he was called upon by the U.S. Air Force to become a B-17 pilot, and was stationed at Ellsworth Air Force Base. He was then sent to England in 1945. While he was at the School of Mines, he was a cheerleader for the football and basketball teams. He cherished his time at the School of Mines and talked fondly of his memories. He passed away in 2006. Lucille brought in his cheerleading sweater for the athletic department to have as a keepsake.

A note received from **Emiel "Bud" Belzer** (CE34) shared, "My wife (of 71 years) and I are living at Westhills Village Retirement Community in Rapid City, South Dakota. We are in excellent health, so says our doctor, and enjoying a nice life. Our three young established children and their children live in Rapid also. This makes it more pleasurable — living near to them. There are four married couples, plus some singles from the School of Mines living at this complex too. We also have a past president of the School of Mines, Dr. **Richard Schleusener**, and his wife, Elaine, living at this complex! At various times, it seems that we are having a minor reunion right here at our Village. Our continuous best wishes and blessings are sent to all of you who are with and from the School of Mines.

A note from Clara Mastrovich, widow of **Anthony Mastrovich** (MinE32), expressed, "As the years

have rolled on, there is very little if any news items from my husband's class of '32. During this time of disastrous economy, it is wise to conserve paper and postage wherever possible. Our life with the mining industry was rich in experiences and Tony always valued his education and background very highly. It is my wish and hope that 'Mines' will continue to flourish and give coming generations the same encouragement and foundation that has built the school's reputation."

**Garfield Muchow** (CE34) wrote, "Contribution made in loving memory and tribute to my wife's uncle, George Thomson." Thank you for the gift, Garfield, and for remembering George Thomson and his many years of service to the School of Mines.

A note from **Maynard Raasch** (ChE37) stated, "I recently donated \$711,000 to the SDSM&T Foundation." Our sincere thanks go to Dr. Raasch for this tremendous gift to the School of Mines.

An update from **Ernest Thurlow** (Geol39): "Son Howard passed away January 22 at the age of 62 after a four year bout with cancer. Our children are taking good care of me. To get me out of the blistering heat of Arizona, I spend the month of June in Montana, which is cold and wet with some snow! July is spent in Spokane and August in Wilmington, Delaware. I also had a mini-alumni meeting in Wilmington with **Maynard Raasch** (ChE37) during a holiday visit with our son, Rich, and family. When we first met, Maynard was an assistant in chem lab and I was a sophomore majoring in geology. Although we did not know each other

personally, we both remembered the lab association. We also had taken classes with some of the same profs and had much 'old school' to talk about. He had gone on to receive his Ph.D. at Ohio State in the same year I got my M.S. in mining geology at Montana School of Mines in Butte. He was a research chemist for DuPont for his entire career amassing many patents and publications — very impressive! All in all a couple of hours well spent — I hope to see him again on my next visit to Wilmington."



*Maynard Raasch (ChE37) and Ernest Thurlow (Geol39)*

## 1940s

**Clair Brich** (EE49) wrote, "I am continually amazed at how many School of Mines students place high in national competition of so many varied types. One example is concrete canoes. We had two grandsons that went through the school and participated in that activity." **Sol Brich** (CE95) and **Jed Brich** (CE00) were each captains of the Concrete Canoe team.

**Lloyd Darnall** (CE44) shared that he "visited Rapid City and the campus this past September. I had a nice visit with Valerie at the Foundation office. That afternoon we had a car accident on Jackson Blvd., just west of the

## class NOTES

Meadowbrook Club House. Totaled both cars; we were fortunate after examination at the hospital to walk away without serious injury. I'm a believer in seat belts and air bags. The other driver had a good insurer."

**Donald Dittman** (ChE42) visited the Alumni Office last year. He shared that he "will be 89 years old January 5, 2009." (Happy belated birthday!). He added, "Have a walk-in basement apartment at my daughter's house in Wooster, New York. Every summer I get out to the Black Hills and do some fishing in the Hills and on the river at Fort Pierre. I am in good health except for a hearing problem."



**Don Dittman** (ChE42) in Surbeck

**James Ennenga** (CE47) writes, "85 years old and still kicking. We get to the Black Hills almost every summer, and we hope to get to the reunion in 2010."

Dr. **Doug Fuerstenau** (MetE49) sent this nice update, "This past September, Doug and his wife were invited to China, where he participated in two different technical meetings. He was appointed as an honorary professor at Central South University in Changsha. He first lectured there in 1979 and again in 1981. At the International Mineral Processing Congress in Beijing, he presented a plenary

lecture and was awarded the IMPC Council Award 'for outstanding and noteworthy contributions to minerals processing over a sustained period.' Upon returning from China, he attended the Annual Meeting of the National Academy of Engineering, which was followed by a meeting of the Editorial Board for the Americas of the Japanese journal, *KONA Particle, and Powder Science Journal*. In December, his former students organized and held a symposium/fellowship celebration of his 80th birthday. Even though it was the middle of December, a fairly large number of his former graduate students, colleagues, and friends attended this celebration," including Dr. **Jon Kellar** (MetE84) from the School of Mines.

Lolita M. Henton, age 78, beloved wife of **Laurin "Slim" Henton** (MinE47) passed away September 17, 2008, in Spokane, Washington. She was born Lolita Toy in Butte, Montana. She graduated from Butte High School in 1949 and was in charge of the cosmetic section in Payless Drugs. She enjoyed a 58-year marriage to Laurin. She is also survived by their sons, Leo and Lee; their spouses; and grandson, Jeffery. She loved animals and that was evident through her caring service at the Spokane Humane Society and her numerous adopted pets. Sincere condolences go to our friend and dedicated alumnus in Spokane, Slim Henton.

An update from **V. Mitchell Liss** (ChE47): "Janice and I are living comfortably at this retirement community with good food and good programs for body and brain, thanks to a good career — building chemical plants in India, Saudi Arabia, Canada, and state-

side sites. The School of Mines also has a huge advantage of a good education for a worthwhile career at half the cost of all other places."

**Elinor and Jack Meeker** (EE47/ME48) are nearing the completion of their new home. Their previous home was totally destroyed in a December 2007 fire that nearly took Jack's life. Throughout another year of tragedies, including the death of their son, Paul, in a June 2008 motorcycle accident, their other son, John, has worked tirelessly to realize the completion of his parents' new home. Special thanks go to John for his periodic updates and photos on the house progress and for his selfless efforts caring for his parents — dear friends of the School of Mines.



**A new home for Elinor and Jack Meeker** (EE47/ME48)

**Armand Sedgely** (CE49) is proud that his son, **Bill Sedgely** (ME69), is also a graduate from the School of Mines.

Dr. **C. Dean Starr** (MetE43) shared the cheerful and welcome news, "We are still vertical. That's pretty good for my age of 87. My wife is something else. We still spend the winter in Myrtle Beach, South Carolina. Golf is just about gone. I have a cancerous growth on my upper neck (on vertebrae) so my spinal cord gets pinched.

# class NOTES

**Elmer Tomsha** (EE42) sent this note: "After three colon operations for cancer, I moved to South Dakota. I live in a farm house next to the family farm. Still enjoy life. Had 65 enjoyable years in New York State."

**James W. Ward** (EE49) sent the sad news that his "spouse Margaret Ward passed away on March 14, 2008." Our sincere condolences go out to Jim and family.

A note from **Christ Woods** (CE48): "Although retired for several years, it doesn't seem very difficult to stay busy. Since we sold our place in Arizona in 2007, we rented last winter and are undecided about 2009. Alice and I drove to Natchitoches, Louisiana, the second week of October to attend the 18th annual 'Al Johnson Old Timers Reunion' (the company I retired from after 40 years). We had a great time visiting with old friends. Best wishes to all at the school. Enjoy hearing news by e-mail and through the Hardrock!"

## 1950s

**George Baumann** (CE53) shared that he has "retired again but looks like I'll go back to work in the spring for the State of Montana."

**Eugene Bradshaw** (ChE59) wrote, "I retired from my small-town law practice on December 31, 2007. I spend winters in Florida on the east coast and summers on beautiful Cayuga Lake in upstate New York. My wife died in April 2007 so I spend my time playing tennis and golf while being a father and grandfather. Sure beats working. I expect to be in Rapid in May '09 for the 50-year

reunion. All the best."

**Dale Bridenbaugh** (ME53) added, "No new news — still pounding nails for Habitat for Humanity for the homeless center."

**Wilfred Brown** (GenE51) sent his schedule: "California in the summer, Arizona in the winter."

**Louis Buchholz** (EE50) shared that "Pueblo has the second warmest temperature (year round) in Colorado. We have enjoyed it for almost 56 years — at the same address!"

**Kenneth Burnham** (GenE53) sent this note: "After 40 years in North Dakota with the gas company and Connie teaching school, we moved to Saline, Kansas, to be between our kids. At the time, we had two in Denver and two in St. Louis. We joined the Elks here and play golf almost every day. We are handy to anywhere from here."

**Carl Buttemeier** (EE59) updated us with this note: "I have two consulting jobs going right now — one with B/E Aerospace and the other with Innovative Technical Solutions. It's nice to live 20 minutes away from the grandchildren, the 15-year-old Alexandra who won third place in the LA City Tennis Finals. The 13-year-old Analyssa is a straight-A student and has been playing the piano for five years."

**Sonny Caputo** (CE55) expressed that "It would be nice to have the new president visit the Washington, D.C. area in the future so the alumni from the area can get an update on the school's growth and objectives!" (Just e-mail him at <Robert.Wharton@sdsmt.edu> and he will reply.)

**Roger Dean** (CE57) writes, "Still working in my post-retirement job with ADNET Systems in support of Federal Highway Administration from national training program."

**Frank Dvoracek** (EE54) wrote, "I am a docent volunteer at Gold Bug Park. Park has a couple of small mines and a stamp mill. I teach many fourth graders taking California History about the days after the start of the Gold Rush in 1848."

**Dr. Wayne Echelberger** (CE56), Ph.D., P.E., professor emeritus of civil and environmental engineering (department chairman, 1989-96) at the University of South Florida, was honored as Engineer of the Year by the Tampa Chapter of the Florida Engineering Society at the 2009 Tampa Bay Engineers Week Banquet. Dr. Echelberger received his B.S. in civil engineering from the South Dakota School of Mines and Technology and Ph. D. (civil/environmental engineering) from the University of Michigan. He was professor and chairman



*Wayne Echelberger (CE56)*

## class NOTES

of civil engineering at the University of Texas at El Paso (1983-89), and has taught at Indiana University, the University of Notre Dame, and the University of Michigan. Numerous honors and awards have been bestowed on Dr. Echelberger. Congratulations go to this truly distinguished alumnus!

**Leon Estes** (GeolE53) shared, "I enjoy having lunch with **Farlow Davis** (MetE52) from time to time."

**Jack Excell** (CE50) joked, "Still doing vertically except when it's good weather when I get on my Honda Trike and go riding."

Thanks go to Maxine and **Harold Fritzsche** (ME51) for sharing this blast-from-the-past picturing the 1951 School of Mines Orchestra. The photo below is a rare and classic glimpse into the Big Band fun had by Miners in days-gone-by.



1951 School of Mines Orchestra - Front row (l-r): **Owen Tripp** (ME50), **Bob Roseburg**, **Wayne Dalke** (MetE51), **Furman Burge** (GeolE50), **Jack Wyant** (EE51), and **John Sievert** (Chem51) playing piano; back row (l-r): **Russell Hendricks**, **Rodney Price** (EE52), **Bob Paullin** (ME50), **Kenny Hammerquist** (EE49), and **Roger Kehm** (EE50).

**Joe Hansen** (ME54), "Enjoyed meeting other alumni in the Knoxville area when Dr. **Larry**

**Simonson** (EE69) organized a meeting here in December 2008. My children are all living in the southeast and are respectfully employed. I am single since 2004 and would like to change this status."

**Harold Hanson** (EE53) has "been retired for 23 years now, and just celebrated becoming an octogenarian (80 years). Julane and I are doing well. I am now a cancer survivor; two colon surgeries in 2007. Julane has had one eye done and is scheduled for cataract removal for the other. We continue with our RV travels and summer campouts."

**Kenneth Iverson** (CE53) told us recently that his wife "Josephine passed away on August 15, 2006, after 20 years with Parkinson's." Best wishes to Ken in his memories of Josephine. He continued, "The latest drops in the stock market have cleaned out the retirement funds unless they come back up. I still have Social Security and a small pension which covers the monthly bills but nothing extra at this time. Health is still good so no worries."

An inspiring note from **Bruce Johnson** (CE59): "All is well in the meeting facilitation, mediation, and executive coaching world. I have been making more time for backpacking, skiing, tennis, and travel. I am grateful for good health and an interesting life. The Alumni Association has meant a lot to me for nearly 50 years. We elders need to support it financially and develop ways to engage the new grads."

**Lars Jorgensen** (EE51) sent this update: "We've moved to a retirement home, The Lakeshore, overlooking Lake Washington and

the Wiley Post International Seaplane Base."

A note from **James Joyce** (EE58) read, "Our 50th wedding anniversary [was] in June '08. We are continuing to enjoy life in the Black Hills and enjoying many winter seasons in Arizona."

**Myron Kidner** (ChE50) had a rough summer: "I broke my hip on July 31, 2008. Following surgery, my heart quit. They got me going again but it took two months of rehab to get me back where I could function." We hope you are doing better in 2009!

**Earl King** (CE50) shared sad news that his "wife of 57 years died March 5, 2008, in Spokane. We married in Crooks, South Dakota, the year I graduated." Our thoughts and prayers are with Earl and his family."

**Alan Liffengren** (ME57) noted, "Nothing unique at this time. Wishing you all a Merry Christmas and a Happy New Year."

**Lyle Mudge** (ChE59) writes, "We are spending the winter in Panama City, Florida. We are enjoying being near our son and family."

**Dave Papcke** (Geol58) wrote, "Thank you so much for the 1958 Engineer and other info. Sorry I couldn't be there, maybe the next 50-year reunion, ha!" See you then if not before!

Sad news from **Duane Paulson** (CE51): "Duane has Parkinson's. He has lost the volume in his voice. He is unable to write. He has lost control of the computer mouse." Hopefully, someone can still share these notes from his classmates with him.

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**William Richardson** (ME59) is now "On my third retirement. Still working at engineering. Still trying to get a handle on it. Shirley and I now have a great-granddaughter."

A note from **Robert Sheakley** (EE52) included, "We're still dividing our time between Syracuse (Liverpool) and Florida but may not be able to after this year. Age has a way of creeping up. Our daughter and grandson are in Liverpool and our son is located at Garden City, Kansas. Probably aren't too many left from the class of '52."

A kind note from **Frank Smit** (MetE54) shared, "Please keep up the good work. I always enjoy reading the *Hardrock* when it comes, and I hope that you will be able to keep it going. My wife also used to enjoy seeing it but her health has not been very good the past few years, so it has been a while since we participated in any of the Association activities."

**Bob Smith** (EE54) e-mailed, "Too much snow for an old Gopher. December 26 brought a caved-in carport and a broken gas line. Grateful for NO EXPLOSION! I left Phoenix for this?!!?"

A very kind note from **Esther and Ernie Sundstrom** (ME58): "We want to sincerely thank you for your terrific efforts in making this 50th college reunion one that will remain in our hearts. You covered everything to make this event complete, from the social hours to the delicious meals served on elegant tables, let alone the interesting and enjoyable tour of the campus. The speeches were most informative and well delivered. The 'Graduation Day' was a highlight for Ernie, walking

across that stage and getting that meaningful diploma after 50 years. At the end of September, we will be attending my 45th college reunion from Tri State University in Angola, Indiana, in civil engineering. With no disrespect to Tri-State, it won't come close to your reunion as we attended my 40th. Thanks to an alumni director who walks that extra mile."

**Edward Tegland** (GeolE59) pondered, "I don't know if I reported the fourth great-grandchild, John R. Tegland III, a.k.a. 'Jack', who is now two years old and going strong. He has three older sisters. I am still going strong in the seismic data processing business thanks to a renewed interest in Pennsylvania."

**Donald Thatcher** (Chem50) wrote, "We are moving to a retirement facility to ease our children's minds."

A note from **Bert Thomsen** (GeolE59) conveyed, "In July 2008, I took my wife's ashes to South Dakota for interment at the Black Hills National Cemetery. Our son, Mark, who lives in Wisconsin, met me in Rapid City for the burial. I spent a few days in Rapid City, toured the campus, and visited **Tim Vottero** (Chem84) in the Alumni Office, then met **Darral Brooks** (CE58) and his wife Marilyn for coffee. In October, I flew to Tampa, Florida, for a 3-day reunion of retirees and former employees of the Water Resources Division of the USGS. We meet every two years to renew old friendships — special friends this year were **John Ritter** (Geol58) and his wife Judy. **Owen Tripp** (ME50) wished "Merry Christmas to all!"

**Stuart Ulfers** (EE58) wrote, "The 50th Anniversary Party for our class was very nice. It was great to see some classmates I haven't seen in 50 years. Thanks again!"

**Wayne Wilcox** (GenE58) shared that he "sponsored development of ASME Stud Standards (Inch and Metric) that were recently published and expect that a very comprehensive SAE part standard on studs (including interference studs) will be published soon. I am also sponsoring several SAE fluid power standards that should be published in a month or two."

## 1960s

**Theodore Andrews** (CE62) sent this note: "Not much change this year, I am trying to keep up with inflation and definitely keeping on top of the grass on the golf course."

**Warren Barnum** (CE61) sent some very sad news: "This was a really bad year. In January, Sally was in the hospital with bad deep vein thrombosis in a leg. Then in March, they found a cancer in my colon. I had that cut out in April and have been on chemo until November when I developed a bad infection in my legs and I'm in the hospital as I write this. Next year just has to be better! We had a couple of nice visits with Gloria and **Vern Bump** (GeolE61) once here and once in Pierre. I guess we are really doing pretty well all things considered."

**Harold Bauer** (EE61) has "Nine grandchildren and one great-grandchild."

**Sam Begeman** (ME64) writes: "We continue to enjoy retirement in Kerrville, Texas. We travel a bit



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and are pleased our grandchildren live fairly close in San Antonio. We recently and surprisingly ran into fellow graduate **Jim Adams** (ChE58) on New Year's Day, who is also a local resident."

**Vincent Bertolotto** (ME67) is "Still working part-time consulting for Hamilton Sundstrand (formerly Sundstrand Aerospace). Enjoy visiting the grandkids in Texas and Illinois. Traveled up to the Northwoods (Wisconsin) in the summer to bike ride and fish a few times last summer. We will go to south Florida and Texas for February to get away from an unusually miserable winter in northern Illinois."

**James Brady** (EE69) "Retired from Hughes Aircraft Co./Raytheon four and a half years ago. Active volunteer in Tucson adult literacy program and on the technical staff of the restored Fox Theater (built in 1930). Wife Maureen is a commercial real estate broker in Tucson, Arizona."

**Dean Brown** (CE60) lamented, "Not much news. I have been having some heart problems since May. I had a small stroke that left my tongue a little slow to talk. We're just getting old. Twila is going ok, just slow."

**Carl Coad** (Math60) beams, "I'm enjoying retirement. We are enjoying our grandchildren and our daughters — one family in Omaha and one in Overland Park. I'm planning to attend the 2010 reunion. It will be my class' 50th anniversary. I haven't decided yet about the 2010 graduation ceremony."

**David Coe** (CE60) and wife, Louis, attended the NU vs. CU football

game with **Dave Rogers** (ME60) and Dave's wife Jan. The game was the day after Thanksgiving in Lincoln, Nebraska. NU won with a fifty-four yard field goal. "Dave Rogers wasn't very happy."

**Lester Davis, Jr.** (ME67) is "Still doing polygraphs and investigations in western South Dakota. My wife, Gail, has been doing some traveling throughout the United States during the past year."

**Cecil Deisch** (EE62) shared that "Although I'm well past the age when I could retire, I still enjoy working full-time as a design engineer. Although I spend most of my time designing various electronic circuits, in recent years I've also received a couple patents and have published several articles in technical journals. My wife and I have four grown children and are blessed with seven grandchildren; most of who, unfortunately, live in distant states so we don't get to see them often."

**Alan Freiberg** (ME68) is "still working for Pursue Energy near Jackson, Mississippi, about every other week. My son, Trent, and his family are still living in Shanghai, China. Four years now. He recently left his position with Cooper and is now a General Manager-Asia Pacific with Carlisle Industries. I still own and fly my airplane."

**Leland Gordon** (CE62) conveyed, "Enjoyed visits with family and friends in Seattle, Portland, and Sacramento. It was great to see a friend, **Tom Gardner** (EE64), and his wife, Paulette, in Portland. We had lost contact for a number of years, until a couple of years ago. It has been a tough year on the old IRA, as it has for many

others. We are looking forward to the improvement in the next couple of years."

**Marvin Hoshaw** (CE66) writes: "Ruth and I are doing well and enjoying our grandchildren. Our oldest granddaughter, Cassie, recently married and the two are working at Daktronics in Brookings, South Dakota. It has been a very good experience for them. We still have two grandchildren in college and the last four are in public school sixth-11th grades."

A note from **Richard Howard** (Chem64): "We are enjoying retirement. Our number 1 priority is spoiling our grandchildren equally. That gets difficult with two in Arizona, two in Alaska, and eight in South Dakota. We are expecting our 13th in May, plus we have one great-grandson."

An update from **Yi-Hui Huang** (Mtro69): "Retired from SCAQMD on January 16, 2008."

**Gary Johnson** (Geol63) is "Looking forward to the 2010 reunion and seeing that new Paleo Building!"

**Dave Kramer** (MetE66) shared, "We just moved to an active adult community (SST). This is the next step towards retirement."

**Kent O. Lande** (CE65) turned 71 in July, but continues to work full time and is still enjoying it. He works for the Louis Berger Group, Inc. in Richmond, Virginia, and Washington, DC. Also, he was involved over a four-year period (2003-07) in periodic visits to Afghanistan designing and building over 1,500 km of all-weather roads. He is currently involved in a similar fashion in South Sudan with Bailey bridges

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and 192 km of roads. His wife, Juanita, suffered a stroke 13 years ago but remains quite active, even with lack of use of her right arm and leg and still affected by aphasia. Family of three children and seven grandchildren live in Minnesota, Texas, and Virginia. So, Kent and Juanita use their RV to make frequent trips to family. They just completed a nine week, 7,700 mile RV trip from Richmond to Olympia, Washington, to Las Vegas, Nevada, to Fort Worth, Texas, then home — eight National Parks and Monuments and a family reunion. Kent also spoke to an RV association on the US highway system with a paper entitled “Pavements, Pounds, and Potholes.” RVers drive the roads but most of them don't know about what happens to roads over time. He noted that the class of '58 was at the graduation ceremony last year. He trusts that “a similar event will be held in '15 when my class of '65 is 50 years older. The good Lord willing, and I am able to still RV, we will be there.”

**Raymond Kub** (EE69) sent news that he “retired from Western Area Power Administration in 2004 and is ranching on the family farm in Edmunds County.” He added, sadly, that “Candy passed away on December 30, 2008.” Sincere condolences go to Ray and family.

**Harlan Miller** (GeolE62) sent this note: “Betty Lou and I enjoyed an inaugural sailing of Holland America's new ship, the Eurodam, last July. We visited 10 countries, including a two-day stop in St. Petersburg, Russia. The Hermitage Museum was great and the Peterhof (Peter the Great's Palace) was fabulous. We stopped

at four ports in Norway. The fjords are beautiful. We even had a troll visit us in the mountains. We visited Falkirk, Scotland, too. It was a wonderful trip.”

A note from **Richard Moen** (MetE62) stated that “Mary Jo and I are still experiencing problems in fully retiring. She continues part-time as a pediatric office RN and I still do a little consulting and teaching on ASME Code materials issues. We've been back to South Dakota twice in the last two years to attend our respective Miller High School 50th class reunions.”

**Scott Morris** (EE69) writes: “I mountain bike and play racquetball regularly with **Rick Gage** (MetE79) and see **Jim Fairchild** (EE68) frequently for conversation or racquetball. My younger daughter, Ruth, gave birth to identical twins on May 15, 2008.”

A note from **Len Neugebauer** (CE69) shared some very sad news: “Our son, Joel Neugebauer, passed away on September 29, 2008, from complications of diabetes at the age of 33. His passing was unexpected and came as quite a shock to us. We are making this year's contributions in his memory.” Thank you, and sincere regards for good memories of your son.

**Jim Neuharth** (ChE68) wrote: “I am retired and enjoying retirement via volunteering with Habitat for Humanities, as well as playing golf, home remodeling, and traveling. A trip with my wife to the New England states this fall included an enjoyable stay, as well as a visit with Sandy and **Dennis Krause** (EE68) in New Hampshire. Happy 2009!”

**David Olson** (Math66) shared, “This year I made working trips to conferences in the Netherlands, Sweden, and China (my fifth to China). I saw the Olympic Village, as well as returning to the Wall.”

**Randy Parcel** (MinE67) sent this note: “I retired as vice president and general counsel in 2007 from Royal Gold, Inc. in Denver, where alumnus **Tony Jensen** (MinE84) is president and **Jack Goth** (MetE50) is a director. Currently, I am working two days a week as a volunteer attorney with The Legal Center for people with disabilities and older people in Denver. My wife, Tracy, is a speech language pathologist with The Children's Hospital in Denver.”

**Ann Parkhill** (Math69) wrote, “I have been retired from Sandia National Labs for five years and am catching up with many hobbies. My grandchildren are Saeed (nine years old), Nabeela (seven years old), and bouncing toddler Teagan (14 months old).”

**Gary Radford** (ME60) updated us that he “Just moved into a new home north of Dallas and am very busy with my consulting business. We had a nice trip to Guatemala for our daughter's wedding. All the children have moved out of the nest now.”

**Jeff Ransom** (Chem69) wrote: “I left Dow Chemical in August 2008, after 39 years as part of the current company and industry ‘downsizing’ efforts. It was a good run. Our children, all young adults now, are successfully making their own way in the world; either working and/or raising their own families. We will be in New Jersey for another few years, perhaps until Annette retires.”

## class NOTES

**Herbert Reichert** (Math66) calculated that he has “now been retired for more than nine-and-a-half years, and recently (August 2008) we were blessed with the arrival of a healthy grandson. We now have a total of five grandchildren (three boys and two girls) who all live in the Twin Cities, about an hour drive from our house in St. Cloud, Minnesota.”

**Roger Rollins'** (Phys67) calling is with “Family and Marriage Coalition of Aiken, of which Roger is executive director, seeks to prevent or eliminate many of society's problems by helping families succeed through a firm foundation based on Jesus Christ.”

**Bob Stofft** (CE62) shared that “The annual School of Mines Triangle Golf/Fellowship Event will take place again at the Francisco Grande Golf Resort in Casa Grande, Arizona, the last weekend in February 2009.” So who won?

**Dick Storm** (CE68) “will be retiring at the end of December. I am looking forward to doing catch-up projects. We haven't been out to the Black Hills since the 2000 reunion. We'll have to move that to the top of our list.”

**Tim Taylor** (Chem63) has “Just finished my first year in my ‘retirement gig’ as an EMT-Basic with Albuquerque Ambulance Service. Our service coordinates with the Albuquerque Fire Dept in taking care of the local 911 calls. The work is wonderful — stimulating, absorbing and exciting! Currently I'm the second-oldest person in our company.”

**Duane Utech** (CE68) wrote: “I

continue my waste-site auditing work, albeit at a somewhat reduced pace, as the president and only employee of Oak Fair Environmental Services. Work brought me to eastern Wyoming in September and that gave me the opportunity to visit campus and the Black Hills again. It is always such a great pleasure to return.”

Linda Velder e-mailed “on behalf of my husband, **Gary C. Velder** (CE62). He retired January 2, 2009, from the Bureau of Reclamation after 15 years of civil engineering service. We enjoy your e-mails. Thank You.” Congratulations Gary, and you are both most welcome!

A note from **James Washenberger** (Math60) included: “I was in Rapid City last weekend (November 14, 2008) and drove around campus. Wow, things have sure changed since I was last there. I was in Rapid for my uncle Louis Braun's funeral (he was 96). It was great to see all of the Braun family. **Chuck** (Chem59), his wife **Kathy** (Math59), and **David Braun** (ME61) all graduated from the School of Mines. I would like to commemorate this gift in honor of Louis Braun.”

## 1970s

**Leonard Alberts** (MinE78) “continues to work for the BIA in the Safety of Dams program. I work with several School of Mines alumni. I also operate the family farm. This year's harvest has been a real challenge with wet grain and muddy fields. Managing a farm and working a full-time job keeps me busy and out of trouble. I have three boys — Brandon at SDSU, and Michael and Nicholas in high school at Langford. Sheri, my wife, also

works at the Langford School.”

**Orie Barnes** (MetE78) e-mailed that he “just recently (November 17, 2008) accepted my current position noted in my signature line below (QA Manager, Transco Products Inc.). I'm enjoying my new job in downtown Chicago, including the daily commute on the Chicago Metro rail system and the vigorous walk from Union Station to my office only two blocks from Lake Michigan. Our company fabricates metal reflective insulation/shielding and strainers for the Emergency Core Cooling System (ECCS) to the nuclear power industry. I've been trying to connect with a fellow School of Mines b-baller **Bob Von Behren** (EE81). I'm looking forward to the 2010 Reunion!” If Bob reads this, please contact Orie via his <obarnes@transco-products.com> e-mail address, and while you are at it, please update your information with the Alumni Office via <alumni@sdsmt.edu>. Thanks!

**John Chandler** (MinE79) is in a new job. “I started an independent oil and gas exploration and production company, called Flatirons Resources LLC, with several partners based in downtown Denver. We have established some production in North Dakota, Kansas, and Arkansas. After doing the large public company ‘thing’ for so long this is a great change! On the personal front, I have another son, Maxwell, who is now seven months old. His brother, Fisher, is three years old, so Hayley and I have our hands full. We still get back to the Black Hills several times and we stay at our cabin in Spearfish Canyon. I see quite a bit of other grads, including **Lanny Outlaw** (GenE58) and **Bobby Schmitz** (CE80).

# class NOTES

**Gary Christman** (ChE74) “left Alaska after five years and moved to Baku, Azerbaijan, with BP as vice president and director of Drilling, Completion, and Intervention Unit, working with **Dan Borling** (GeolE81) and **Seth Feyereisen** (ChE97). The photos below show Seth Feyereisen with me at his going away party — he transferred back to Houston in mid-March — and Dan Borling with me in front of BP’s office at Villa Petrolea in Baku. Looking forward to the reunion in ’10.”



*Seth Feyereisen (ChE97) and Gary Christman (ChE74)*



*Gary Christman (ChE74) and Dan Borling (GeolE81)*

Aberdeen native **Paul Ching** (M.S. GeolE73), who is the chairman of the board of Meridian Resource Corporation, is also serving as the company’s interim chief executive officer. The Meridian board of directors announced in January 2009 that Ching will serve in that position until a successor is named. An Aberdeen Central

graduate, Ching earned a bachelor’s degree in mathematics from what is now Northern State University in 1969, then earned a master’s in geological engineering in 1973 from the South Dakota School of Mines and Technology. He is married to Barbara and they have three grown children, twin sons and a daughter, and they have three grandchildren. The Meridian Resource Corporation is an independent oil and natural gas company engaged in the exploration, exploitation, acquisition and development of oil and natural gas in Louisiana, Texas, and the Gulf of Mexico (<www.tmrc.com>).

**Karl Gerdes** (ChE71) wrote that he “enjoyed meeting President Wharton at the Alumni event in Berkeley in January 2009. It turns out that we share an interest in climbing — especially the ice variety. It just shows that years of education and numerous degrees do not necessarily instill common sense!”

A note from **David Gibbons** (MinE78): “Cordillera had a planned sale of its assets. I will take time off through the holidays. Course for 2009 is not charted yet!”

**Richard Gjere** (CE74) noted: “After working for 33 years (all in Durango), I retired from the US Bureau of Reclamation. I still live in and enjoy Durango, Colorado, but have a grandson in Albuquerque.”

**David Glanzer** (EE74) “moved from Georgetown, Texas, to Austin, Texas, in August. Now I have a ‘Keep Austin Weird’ T-shirt. Family is doing fine.”

The Minerals, Metals & Materials Society (TMS) announced the

election of four new members to its Board of Directors, including **George T. (Rusty) Gray III** (MetE76) as the vice president. Rusty Gray is laboratory fellow at Los Alamos National Laboratory in Los Alamos, New Mexico, and a member of the National Materials Advisory Board of the U.S. National Academies. He has authored or co-authored more than 330 technical publications. Gray will serve as TMS vice president in 2009, as TMS president in 2010, and as TMS Past President in 2011. Also elected was Dr. **Stanley Howard**, professor, materials and metallurgical engineering, as the TMS financial planning officer. Howard will guide the professional activities of TMS concerned with finances, audit, and investments.



*George Rusty Gray III (MetE76)*

**Patrick Hallauer** (ME76) shared the news that he “married Sherry on November 1, 2008. Sherry and her three daughters (six years, eight years, and 13 years) now join my family of two married daughters, my son, and four grandchildren. We are a family of 14! Thank you Jesus!”

**Brian Hardy** (ME78) is “enjoying working with **Bart Trevillyan** (ME77) and **Todd Mescher** (IE93) at Tiger Corp.”



# class NOTES

A note from **Alvin Heggem** (CE78) outlined "My work history is as follows: 1979-1982 for Boeing; 1982-1983 for Martin Marietta; 1983-1991 for USAF; 1991-1993 for Metro Media Steakhouse; 1993-present for US Postal Service. Son Brian has an electrical engineering/computer science degree and works for Care Source. Son Timothy is in the USAF and is stationed in Japan. Son Jerry works for an injection molding company in the local area. My wife Veronica and I have been blessed with five grandchildren ages three to 14."

**Ted Iverson** (ME73) is "still living in Southern Indiana. Our oldest son graduated from Purdue with a degree in computer integrated manufacturing and is working for IACNA in Danville, Indiana. Our youngest son got his Ph.D. in material science and engineering and is working in research at Halliburton in Oklahoma. I am working for General Mills for a few more years. If you are in Louisville, give us a call."

**Dave Jackson** (ME70) sent this note: "I have four grandchildren that live in the Houston area. Recently took a business trip to Angola, Africa, to work on the conceptual design of a raw water pipeline. I also work on Corp. Engineer projects to rebuild the storm water pumping for the New Orleans, Louisiana, area."

**William Jones** (ME73) shared that "All four sons have their engineering degrees from NCSU. Our four grandchildren include Tyler, Izzie, Caleb, and Ashton."

**Sandra Kastner** (MinE78) writes "I am back in the mining business after a long break! My husband Vic and I both work for Proppant Specialists LLC, a company that

produces frac sand from operations in Wisconsin, Missouri, and Texas. I am logistics coordinator for rain shipments. Our children both attend college in Texas; one is majoring in electrical engineering and the other in chemical engineering, with neither one interested in pursuing family heritage in mining."

A note from **Patty** (ChE76) and **David Knox** (ME75): "We are enjoying living in Yokohama, Japan. Having been here for about one year, we can order dinner from the pictures and plastic food displays. The culture differences make work and life fun and challenging every day."

**Clair Menning** (CE73) wrote: "Recently completed three projects in South Korea spanning five years. These projects involved design and fabrication of oil, gas, and NGL production facilities that were transported to and installed in Angola and Nigeria. Just moved to London to begin engineering for the LNG plant to be installed in Western Australia."

**Jeffry Muffat** (ME74) shared "We welcomed our first grandchild, Maximilian Jay Steele, into this world on August 20, 2008. Julie and I are anxiously awaiting many more!"

**Larry Pawlowski** (MetE77) announced "The 32nd Annual 'Winter Rendezvous' was held in December 2008 at Mammoth Mountain, California. Alumni attendees were Larry Pawlowski and family, **Don Pawlowski** (ME72), **Mike Cole** (MinE77) and family, **Patty Mamola** (CE86) and family, and the family of the late **Gary Zoodsma** (CE76) - Marilla and son Jake. The skiing was

fantastic as was the company."

Congratulations go to **Lee Rice** (M.S. Geol70). "Colorado Goldfields Inc. announces that Lee R. Rice has accepted the position of President and CEO of Colorado Goldfields. Rice is currently a member of the Company's Board of Directors. He is an experienced geological engineer, having worked as a geologist and engineer in the natural resources industry since 1970. Since 1990, Rice has been employed by, and is currently chief engineer for Data Technology Services, Inc., a Colorado-based, privately-owned company that provides information technology services to various industries, including finance, oil and gas, geology, and chemistry. Rice is a board member for International Beryllium Corporation (IB.V). Prior to this, Rice held various geological, engineering, and management positions with the U.S. Bureau of Mines and private industry. Rice holds a bachelor of science degree in chemistry from Case-Western Reserve University and a master of science in geology and geological engineering (with high honors) from South Dakota School of Mines and Technology. Rice has been a registered professional engineer in Colorado for more than 30 years and is a registered member of the Society of Mining, Metallurgy, and Exploration."

**George Shea** (EE71) updated us with "Yes, I have moved back to South Dakota and am working part time for my former company. I am enjoying the South Dakota laid back atmosphere for sure. My wife and I are fixing up an old farmhouse which will take a long time to complete, but that is what we now have."

# class NOTES

**Thomas Sheldon** (ChE70) wrote: "Our son, Matt, graduated from the School of Mines in May 2008 with a degree in geology. He did an internship this fall at Wharf Mine in Lead, South Dakota."

**Grant Shelton** (ME70) shared, "I always enjoy coming back to the Black Hills, usually come back at least a couple of times a year, and looking forward to a family reunion in the Hills next summer."

**Janita Smith** (Chem77) updated us that "Jordan and Kirk are now married and we are expecting our first grandchildren. Jason and Amy are expecting in December 2008 and Kirk and Liz in May 2009. We have three still in high school! Life remains busy and we hold fast to the truth as we navigate the economic times!"

**Kip Squire** (CE78) is a partner in charge of structural engineering for Thompson, Dreessen & Dorner, Inc. in Omaha, Nebraska (<[www.td2co.com](http://www.td2co.com)>). TD2 is a 42-year-old firm that provides civil, environmental, structural, and geotechnical engineering as well as land surveying. Kip is responsible for the design of buildings throughout the country. Also employed at TD2 is **Gary Norton** (CE92). Deb is employed by St. Vincent DePaul Elementary as a seventh-grade teacher associate. Kip and Deb have three daughters. Katie is a nurse at the Nebraska Medical Center and is halfway through obtaining her master's as a nurse practitioner. "We celebrated Mandy's wedding to Jordan Arens in August. Mandy and Jordan live in Memphis, where Mandy is a nurse in the pediatric intensive care unit at LeBonheur Children's Hospital. Abbie is a sophomore at Creighton University and is applying to occupational therapy school."

**Craig Tieszen** (ChE71) "retired from the Rapid City Police Department in July 2007 after seven years as chief. I ran for State Senate in 2008, won the primary in June, and general election in November. I begin my two year term in Pierre in January 2009."

**Larry Todd** (MetE78) wrote "Jayne and I moved to Calama, Chile, in October. I work at Freeport McMoRan's El Abra Copper Mine. Before moving from Arizona, we enjoyed seeing **Brad Chase** (MetE78) and Ann on a regular basis. During 2007 and 2008, I also enjoyed working with a top-notch construction manager, **Walt Griffith** (CE79), on the Safford Project in Arizona. Small world!"

**Jerry Wright** (CE71) is "getting close to retirement in 2010. However, of note, I was called out of retirement from the Army Retired Reserve and spent one year in Kuwait as executive officer, engineer section, Third Army Headquarters — reported November 26, 2006, and returned to Rapid City November 19, 2007."

## 1980s

**Jehiel Cass** (CE88) reflected, "Yesterday was Thanksgiving Day, and my older daughter's 18th birthday! I have so much to be thankful for. It's been 20 years since graduating from the School of Mines. Not only am I thankful for my daughters, my job at the State of California Water Board, but also the solid, no-nonsense engineering foundation received at the School of Mines. Thank you all!"

**Paul Clark** (ME86) recently moved to Houston from Detroit, Michigan.

**Randy Clarksean**, Ph.D., P.E. (ME83), formerly KKAI's (Kevin

Kennedy & Associates Inc.) vice president of engineering, has been promoted to president of the company. Clarksean joined KKAI in 2004 and brings with him nearly 25 years of engineering experience. KKAI has experienced continued and rapid growth over those four years, of which Clarksean has been a critical component. As president, Clarksean will continue to steer the company's steady growth while continuing to ensure KKAI provides superior service to its clients across the globe.

**Charles Crisman** (EE89) "entered the Nowair Leadership Development Program in January 2008 and is on staff with the Program Executive Office for Tactical Aircraft as the resident Lean Six Sigma Black Belt and acting Deployment Champion. I am working on my 10th year as a Cub Scout leader (ninth as cubmaster) and fourth as an assistant scoutmaster."

**Knut Dahl-Stamnes** (CE80) wrote, "Still overseas — our daughter Erika has been accepted at Trinity University in San Antonio, Texas, for the class of 2010. **Reah** (CE81) spends part of her time in Austin, Texas, and part of it in Stavanger, Norway."

An update from **Kenneth Ferris** (Geol88): "I am attending the Army Command and General Staff College in Leavenworth, Kansas, for the academic year. I was sent by my agency, National Geospatial Intelligence Agency. I am one of only six inter-agency civilians in a class of more than 1,000!"

**Wade Fott** (ME88) e-mailed "Wendy and I want to announce that Anna Helena Fott arrived ... and she weighed in at 7 lb. 11 oz. and is 20 inches long and has a

# class NOTES

head full of beautiful dark hair. Older brother Joe really wanted to have a little brother, but is now warming up to the idea of having a sister."



*Baby Anna and Wendy Fott*

**Dwight Gemar** (ChE80) says "It's hard to believe I'm coming up on 20 years in the San Francisco Bay Area. I've been working as manager for large environmental restoration projects, most recently at the former Mare Island Naval Shipyard and at Fort Ord. The work has been interesting, everything from capping industrial landfills to removing buried munitions to creating new wetlands. My wife, Claudia, works part-time at the same company. She is also a ChE. We have three children — Michael, a high school junior; Megan, a high school freshman; and Rachel, a seventh grader. All are into sports of all kinds. Anyone who is passing through the Bay Area is welcome!"

The "???" in the caption for the middle photograph on page 27 of the spring 2008 *Hardrock* should have been Dr. **Dave Gosselin** (Ph.D. Geol87). Thanks go to **Tim Vogt** (M.S. Geol84) for sending in the mystery ID.

Burns & McDonnell's board recently elected CEO **Greg Graves** (ME80) as chairman, effective

January 1, 2009. Graves succeeds Chairman Joel Cerwick, who retired from the company December 31 after 40 years. Graves joined Kansas City-based Burns & McDonnell (see <[www.burnsmcd.com](http://www.burnsmcd.com)>) in 1980 after graduating from the South Dakota School of Mines and Technology. He worked in the firm's energy division, starting as a stack tester, then later as design engineer and project manager. He was promoted to a number of different jobs at the firm until he was appointed CEO on January 1, 2004.

**Mary Nelson Himmler** (Chem88) sends greetings. "Hello! My address has changed again. My husband, Bruno, who recently returned from Iraq, has been transferred to the Army War College (where he is part of peace-keeping operations). I will be providing rehabilitation to injured soldiers. Our daughter, Michelle (a School of Mines ME student), continues her training to fly Blackhawk helicopters. Take care!"

**Jeene Hobbs** (ChE80) updated us that they "moved to Blair in May 2008. Jeene is happy to be back in the Great Plains! The boys love the new neighborhood and walking to school. Dave works for Omaha Public Power District at Fort Calhoun Nuclear Power Station. They need engineers who are interested in monitoring instruments."

Flint Energy Services Ltd. (<[www.flintenergy.com](http://www.flintenergy.com)>) is pleased to announce the appointment of **Joel Jarding** (ME82) as vice president of Flint Transco. Jarding assumed his new role at Flint Transco on December 15, 2008. As vice president, Jarding will be responsible for a fleet of

approximately 500 power units and 1,200 trailers operating out of 12 locations in western Canada. Jarding has more than 26 years of experience in the oil and gas services sector, including 25 years with Baker Hughes, both nationally and internationally in increasingly senior management positions.

**Chris Korpi** (GeolE83) "Just appointed to the Obama Transition Team for Gaming and Environmental Policy. Patrick has two more going to the inauguration as guests of Senator, President-Elect [President] Obama."

**Daniel Mulally** (EE87) wrote, "Still working for AirDat, but now my wife and I have moved back to Rapid City from Colorado."

**Tim** (MinE85) and **Laura Pike** (CSc85) e-mailed, "We are still doing well here in Winnemucca, Nevada. Tim recently became the production superintendent at the Twin Creeks Mine and Laura continues teaching computer courses at the community college. Our oldest son, Matthew, graduated from Lowry High School in June and this fall is enrolled at the School of Mines as a civil engineering student. He is also running cross country and distance track for the Hardrockers. Christopher is a junior in high school and looking at future studies in marine biology."

**Michelle Tibke** (CE82) was recently promoted to the division head of Code 200 at the Puget Sound Naval Shipyard. This division, also referred to the Planning Department, is responsible for all shipboard projects. She reports directly to the shipyard commander.

# class NOTES

Congratulations Michelle!

**Luie Trudy** (Phys83) is "happily married (again) with three teenage girls in the house. My dog and I are outnumbered! We are hoping to see just a little snow here this winter. We were in the Black Hills this summer for a couple of days — just enough for my wife to fall in love with the area."

The Alumni Office was informed last fall of the sad news that **Glenn Kreklow**, husband of **Janice Vosika** (ChE81), passed away April 2008. Glenn Thomas Kreklow, 57, was born in 1950 in Camp Campbell, Kentucky. Glenn was a journeymen carpenter who later ran a successful handyman business. Glenn had a variety of skills, and he also worked many types of jobs as he had the opportunity to travel throughout the western United States to Wyoming, Colorado, Texas, and other locations. Glenn enjoyed officiating for a variety of sports, and he was especially respected as a baseball umpire in a number of states. He also took on a number of roles at ski areas and golf courses at various locations, and was a longtime member of the Golf Course Superintendent Association. He had a commercial driver's license and could operate most any type of equipment. A loving husband and father, Glenn enjoyed his favorite activities: golf, camping, hunting, and fishing with his family and friends. Glenn and Janice shared their lives together for 20 years. Son Christopher Kreklow; sisters, Karen, Kerry, Diana, Dorothy, and Lavergne; and brother, Karl, will miss him dearly. Our belated condolences go to Janice in what must have been a difficult year.

Tami and **Tim Vottero** (Chem84) welcomed their first grandchild on

their 26th wedding anniversary in September, amidst the onset of Hurricane Ike. Maelle Louise Lundin was born to Ian and **Breanne** (Vottero) **Lundin** (ChE06) in Houston while Grandma Tami was on-hand for her first hurricane. Papa Vo stayed home with then 11-year-old Jonathan, and visited the new addition for a couple of days later in September. Second daughter, **Corinne** (IE08), graduated and went to work for Granite Construction in Sacramento, while third daughter, Amanda, is a sophomore at USD studying business and marketing. Breanne has since returned to work for Dow Chemical in Houston. A visit from all the kids at Christmas pacified Grandma Tami for awhile — thank goodness for Facebook and webcams!

## 1990s

**Michael Arens** (CE98) announced the birth of baby boy Isaac on May 12, 2008, to accompany two-year-old big brother.

**Jason Fink** (ChE97) welcomed a son, Harrison, born on February 19, 2008.

**Richard Garman** (ME91) updated us with, "We moved to Bismarck/Mandan during the summer of 2007. We left Gillette, Wyoming, after eight years. I jumped ship from PacifiCorp to Great River Energy. It is an amazing change. Investor-owned utilities like PacifiCorp are operated much differently than cooperatives like GRE. In this case, different of GRE is a great thing. I have lots of freedom to manage the projects I am assigned. Currently, I am managing the design and construction of scrubber retrofit at the Stanton Station in Stanton, North Dakota. It was a great move for us. We

ended up in a bigger house in Mandan, on the Missouri River, for the same money we sold our house for in Gillette. If you are passing through, give us a call."

A note from **Ken Hargens** (IS96): "I recently transferred from the Ft. Meade Medical-Surgical floor to the Specialty Clinic Area. I try to teach my grand-daughter calculus and organic chemistry, but at 18 months old she has a short attention span!"

**Greg Hintgen** (EE99) and Libby are expecting a baby girl in April! "We are looking forward to the reunion in 2010."

**Steve Holty** (ChE98), "just happened to be wearing my South Dakota Tech shirt! My wife Emily and I are doing great with our bundle of joy, Saeda Elaine, born December 6, 2008. I work for Hemlock Semiconductor Corporation, a majority-owned division of Dow Corning Corporation."



*Baby Saeda and Steve Holty  
(ChE98)*

**Paul Larson** (ME93) wrote: "Paul and Amy Larson are excited to welcome Nathan Paul, born September 16, 2008. Paul

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continues to work at Metropolitan Industries as general manager over engineering, production, and service. Amy homeschools our six children that God blessed our family with."



*Nathan Paul Larson*

A note from **Manuel Penaloza, Jr.** (MetE95) expressed, "We enjoyed the Alumni Reunion (Wichita) this past summer and hope to see another event next year. Our family is doing well; Stacey and I are expecting our second child. Victoria is very happy and is hoping for a baby sister!"

An update from **Terry Rasmussen** (MetE91): "Sierra is 14 and in ninth grade now. She is in band and enjoys art, science, and reading (a lot). Seth is 11 and in sixth grade. He is in band and plays the piano. We have started a group at his school for engineering and robotics which is going over well! Rylan is eight and in second grade. He loves sports! He is doing great in soccer and is being taught piano by his big sister — she is very patient! When we aren't working, Lois and I keep busy running the kids around town and working on various projects. I get back to Rapid City several times a year to meet with

engineering students which I enjoy very much!"

**Jessica Ryan** (IS95) had twin baby girls, Annie and Kate, last year (July 2007). "They're beautiful and complete our family!"

**Paul Winkler** (ME94) wrote that they "added another kid to our family. Cody Rose Winkler was born at home on October 25, 2008. She joins big sister, Cherokee, and three brothers, Wyatt, Garrett, and Clint."

## 2000s

**Karen Ann Brady** (CE01) wrote, "We are expecting our first baby in February 2009."

A project engineer from the Balad Resident Office in Iraq was selected as one of the 2009 "Top Five New Faces in Engineering" for the U.S. Army Corps of Engineers. **Elizabeth Burg** (CE06), an Army civilian who volunteered to deploy to Iraq, was selected for the award from among 22 engineer nominees by the panel at Corps of Engineers headquarters in Washington, DC. The panel's selection criteria included reviewing nominees' pursuit of professional registration, engineering achievements, professional and technical society activities, and support of community and humanitarian activities outside of the workplace. The "New Faces" program provides a national forum to single out the contributions of new civilian and military engineers and to promote the opportunities for prospective engineers considering a career with the Corps of Engineers. A self-described "Air Force brat," Burg now attends Mississippi State University, working toward her master's degree in civil

engineering.

**Danielle (Marquardt) Erdmann** (Geol05) shared that "**Kevin** (ME04) and I were married on May 31, 2008, in Mitchell. Included in our wedding party were **Jennifer (Pohl) Malloy** (CE07), **Rebecca Scholten** (ME05), Melissa (Belcher) Diedrich, Jason Thompson, and Tanner Feyereisen. There were also many Theta Tau alumni that attended our wedding."



*Danielle (Marquardt) (Geol05) and Kevin Erdmann (ME04)*

**Megan Harbour** (CE07) wrote, "Work is going ok. I'm actually working in Albuquerque now and commuting from Santa Fe, backwards of the rest of the world around here. It won't last too long though thankfully. I am getting an apartment in Albuquerque this month. The plan is to move in the weekend before Thanksgiving and then I will have all four days of Thanksgiving weekend to unpack and hang pictures, etc. With any luck, I will be here through the winter. I had originally intended on coming back to the School of Mines this fall to visit some friends but simply ran out of time and money. If I wasn't working or traveling for work on the weekend, it seems like someone

# class NOTES

was visiting. I'm trying to learn as much as I can and so far the company has been good about moving me around in positions to see all sides."

Astronaut **John Herrington** (D.Sc. HON03) is a friend of the School of Mines and the first American Indian in space. He delivered our commencement address in the past and has visited our campus on several occasions, including a few times this past summer to interact with the SD GEAR UP Program. John is turning 50 this year. To celebrate, he is bicycling 4,000 miles from the Pacific Ocean in Washington State to Cape Canaveral on the Atlantic Ocean to encourage student participation in STEM. Unfortunately, his route did not bring him through South Dakota. He has a pretty cool website put together by the Linn brothers (of Rapid City) via the <www.rocketrek.com> link.

Ian and **Breanne** (Vottero) **Lundin** (ChE06) welcomed their first child, Maelle Louise Lundin, on September 11, 2008, amidst Hurricane Ike in Houston, Texas. She was 9 lbs and 21 inches long. Grandma Tami was on-hand for moral support, and great uncle **Dusty Gilyard** (CE81) and great aunt Sue were a port in the storm afterwards, while the new parents' home was slowly brought back



*Maelle Louise Lundin*

into a normal state. Papa Vo visited a couple of weeks later to meet his first grandchild in person.

**Corey Simnioniw** (ME03) recently moved to a new home and is now employed at SolarBee, Inc., in Dickinson, North Dakota, since graduation in 2003.

**Melanie Vedvei** (IE08) was named a 2008 Tau Beta Pi Laureate for her achievements in athletics. As an eighth grader, Melanie was a starter on her high school basketball team. She joined the squad at the School of Mines and recently received the 2008 LeRoy Walker Champion of Character Award, considered one of the most prestigious accolades in the NAIA. It honors a student-athlete who excels in sports, integrity, and academics. Melanie has been an NAIA Basketball All-American for the past three years, an NAIA Academic All-American in 2007 and 2008, and the Dakota Athletic Conference basketball MVP for the past two years. She holds the most School of Mines records for women's basketball and is the all-time career steals leader in the NAIA. She achieved all of this despite collapsing with a season-ending knee injury during a game in January 2008. Melanie also began coaching basketball, volleyball, and track in high school and continued coaching while in college. This included coaching a YMCA girl's team and serving at numerous youth camps. She led a youth basketball camp at her school for three summers. On the academic front, she achieved a G.P.A. of 3.94 and made the dean's list every semester. Melanie was a key contributor to many projects and was named to the school's leadership hall of fame in 2008. She was named Tau Beta Pi Leroy Record Scholar No. 324 and served

as South Dakota Alpha Vice President. She also works at her family's cattle ranch, and she joined Daktronics last June.

**Mike Waldron** (CSc05) has two kids in the house (Manjula, age five, and William, age two) and a third on the way in May 2009.



*Melanie Vedvei (IE08)*

**Justin Wenner** (ME06) 2008 shared that it "was an exciting year for us in Kansas. I am in my second year at Garmin as a mechanical design engineer in the Avionics division. I had been working on a new LCD display and really enjoy the design work. On Halloween this past year, the local AMC movie theatre had a special promotional event —



*Sara and Justin Wenner (ME06)*

*Continued on page 74*

## **FRANK CHARLES AUKERMAN, JR.**

**Frank Aukerman, Jr.** (CE48) passed away January 11, 2009, at Good Samaritan Village in Sioux Falls. He was 82. Born in Rapid City, Aukerman served as a B-52 pilot during WWII in the Army Air Corps and returned home to graduate from the South Dakota School of Mines and Technology in 1948 as a civil engineer. He worked as a structural engineer in Great Falls, Montana, and then attended Iowa State University and received a degree in architecture. Returning to Rapid City, Aukerman entered into a partnership with **Ed Mazourek** (CE41) to form Aukerman and Mazourek Architectural Engineering. Before and after retirement, he enjoyed hunting, fishing, camping, woodworking, and sports cars. He married Helen Frank in 1946 in Rapid City. Grateful for having shared his life are his daughter, Karen Madsen, and son, Rod Aukerman, both of Sioux Falls, and their families, including six grandchildren and five great-grandchildren.

## **JOHN EDWARD BARANSKI**

The Alumni Office was recently informed that **John Baranski** (EE58) passed away some time ago. He was 77 at the time.

## **ROBERT DAVID BECKER**

**Robert Becker** (ME50) passed away December 17, 2008. The Alumni Office was informed by his daughter Mary Becker. Becker was married to Erda and had retired from Boeing. He was 83.

## **DONAGENE MARIE BELL**

**Donagene Marie (Zimmerman) Bell** (ChE43) died at the age of 84 in Holton, Kansas. She was preceded in death by her husband of 61 years, Alvin Bell; her mother and father; and her brother **James Zimmerman** (EE43). She is survived by her six children:

Alvin Jr., Jeffery, Karl, Arnold, Joan, and Kathy, brothers **Ward Zimmerman** (ME50) and **Robert Zimmerman** (ChE47), and her sister Hazel. She left a legacy of 27 grandchildren and numerous great-grandchildren. Bell retired from the Kansas State Department of Health and Environment as a radiation chemist. She is greatly missed.

## **THOMAS EDWARDS BOLGER**

**Thomas Bolger** (EE50) has always held his Moorhead/Fargo roots close to his heart, returning year after year to reconnect with those there he loved. Born in 1927, Bolger graduated in the Moorhead High School class of 1944. The many stories of his industrious and mischievous young life are too numerous to recount here. He attended St. John's University in St. Cloud, Minnesota, finishing at the South Dakota School of Mines and Technology after serving aboard the USS Lexington at the end of WWII. Upon graduating with a degree in electrical engineering, Bolger began his wide-ranging career within the telecommunications industry. He excelled as a lineman, service foreman, plant engineer, and plant manager. At age 40, he became president of Pacific Northwest Bell in Seattle, Washington. In 1974, he was assigned as chairman and CEO of the Chesapeake and Potomac Telephone Companies. He was then appointed as the executive vice president of AT&T and was a leading figure during the divestiture of the Bell System. In 1983, Bolger was elected the founding chairman and CEO of the Bell Atlantic Corporation, one of the "Baby Bells." Bolger served on several corporate boards. He was most fond of his work as a member of the Board of Directors of the National Geographic Society. Throughout his impressive career, he and his family continually came home to

Minnesota. He and his brothers built their Lake Bad Medicine retreat, cherished by generations of family and friends. Like any good Minnesotan, he enjoyed the lakeside saunas with his grandchildren most of all. He enjoyed many rounds of golf in Detroit Lakes and Fargo with his brothers Lowell and Jerry, his brother-in-law Donovan Nelson, and his best friend Ron McLarnen of Moorhead. His love and talent for golf took him to some renowned courses around the world. He enjoyed participating in numerous pro-am competitions and fondly recalled playing golf with Arnold Palmer on more than one occasion. He died peacefully at home on February 19, 2009, from complications of cancer. His parents, Thomas Joseph and Anna Kathryn Bolger, and his brothers, Eugene and Gerald, precede him in death. His brother Lowell of Moorhead and his sister Patricia Hieb of Fargo survive him. He loved them dearly. The love of his life since high school, Mae Nelson Bolger of Moorhead, resides in Coronado, California. She and his five children, 12 grandchildren, and four great-grandchildren, mourn their loss with immense gratitude for his life.

## **FURMAN HORACE BURGE**

**Furman Burge** (GeolE50), a member of the SDSM&T Alumni Association, passed away last year at the age of 83. He was married to Dorothy and had three children: Carolyn, Catherine, and Charles. He was a member of Sigma Tau and retired from US Steel Corp.

## **MARSHALL SOMMERS DALE**

**Marshall Dale** (MinE43), formerly of Rapid City, died November 22, 2008, in Goodyear, Arizona. He was 89 years old. He was born in Columbus, Nebraska, and attended rural schools near Kyle, South Dakota, and in Rushville,

# Memorials

Nebraska. In 1919, he graduated from Rapid City High School. In 1943, he completed his bachelor's degree in mining engineering from the School of Mines, and while there he earned a letter in track and cross country. Dale went to Bolivia during WWII to work as a mining engineer in the copper mines. He entered the Marine Corp and served in occupied Japan. He then began a long career in mining engineering with Kennecott Copper Corporation in Nevada and Arizona. In 1980, he returned to the School of Mines, earning a master's in mining engineering and teaching surveying courses. A lifelong distance runner, he completed his last marathon in Rapid City at age 60. Dale was preceded in death by his parents, one brother, two sisters, and his wife Dorothy Davis Dale, who died in 1975. He is survived by his daughter, Lissa Dale, and two sons, Barry and Bruce. He also leaves nine grandchildren and 14 great-grandchildren. Surviving is his sister, Norma Dale Diede of Cortez, Colorado, who in memory of her late husband, **Ernest Diede** (EE51), and other family established a memorial at the SDSM&T Foundation for the Dale & Diede Scholarship.

**WILLIAM SEATON HANNAN, JR**  
**William Seaton Hannan, Jr.** (MetE43), died on January 4, 2009, in Tucson, Arizona. He was born in 1922 in Pierre, South Dakota. He grew up in various towns in South Dakota and as a teenager was active in debate teams, city bands, and DeMolay functions. He graduated from Pierre High School in 1940 and then attended the School of Mines. During his college years, he earned extra money by playing the trumpet with dance bands and other musical groups. After working briefly in mining in Colorado, he joined the U.S. Navy in 1944 and

trained at Farragut, Idaho, and at Monterey and Treasure Island, California. He served as an electronics technician in the South Pacific aboard the Leland E. Thomas, a destroyer escort that was part of the 7th Fleet, mainly providing escort for oil tankers. He also served on the LSM 203, a landing craft, in the Pacific and Caribbean before being honorably discharged in 1946. He obtained a master's degree in metallurgy from the Massachusetts Institute of Technology in 1947 and took his first job in Hanover, New Mexico. He spent his professional career as a metallurgical engineer with the New Jersey Zinc Co., Phelps Dodge Corporation, Mountain States Mineral Enterprises, and in semi-retirement worked as a consulting engineer. He fully retired in 1997. He and Nancy Baker McReynolds were married in Pulaski, Virginia, in 1954. Their married life was spent in Austinville, Virginia; Silver City, New Mexico; and Bisbee, Morenci, and Tucson, Arizona. He was active as a choir member and lay reader in the Episcopal Church throughout his life and served as a senior warden in churches in Silver City, Bisbee, and Morenci. During his retirement years, he was an active trumpet player with the Sabbar Shrine Band in Tucson. At various times in his life, he was also active with the Masonic Temple; the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME); and the Rotary Club International. Hannan is survived by his wife Nancy; son Paul; daughters Elizabeth, Barbara and their families; his sister Gratia Griffith and brother-in-law **William Griffith** (MetE47); and several nieces and nephews.

**HORACE MAYNARD HANSEN**  
**H.M. "Buzz" Hansen** (CE41), 89, of Brookings, died November 22, 2008, at Sutter Coast Hospital in

Crescent City, California, of natural causes. He was born in Winner, South Dakota. Hansen worked for American Bridge Company in Pennsylvania until he enlisted in the U.S. Air Force during WWII. He served in Italy until his discharge as a 1st Lt. in 1946. Afterwards, he came to California with friends and met his future wife, Hope Fisher. They were married in 1946 in Glendale, California. He was employed with an engineering firm in Burbank, California, and he earned his registration as a civil engineer while there. Later, he earned registration in California as a structural engineer. He started his own business in Temple City, California, and operated it for 30 years before moving to Brookings in 1989 to semi-retire. Hansen worked on small projects locally until his death. He was very active in the community with various projects, including participation in Rotary Club of Brookings-Harbor. The couple traveled extensively during their marriage, including a visit to Russia. The Hansens sponsored three foreign exchange students in the early 1970s. Survivors include his wife, Hope; son, Jeff Hansen; daughter and son-in-law Jill and Bill Pate, all of Brookings; and three grandchildren, a sister, and a brother. At his request, his ashes were scattered at sea by the U.S. Coast Guard.

**JOHN BYRON HILLER**  
**John Hiller** (EE48) passed away in 2008, while residing in a nursing home in Albuquerque, New Mexico. He was a member of Sigma Tau and the M-Club while at the School of Mines.

**SHERLOCK VAN HIRNING, JR**  
**Sherlock Hirning, Jr.** (ChE96), 38, died February 24, 2009, in a tragic drowning accident while scuba diving in Burrows Bay near his home in Anacortes, Washington.

Many of his dear friends attended the memorial, sharing memories of Hirning's life, stories, pictures, and reminiscing with fraternity brothers from Theta Tau. One alumnus and brother shared a slideshow of pictures after the service. It conveyed his amazing zest for life through images of him sailing his sailboat in Puget Sound, his love of scuba diving, running long-distance relay races, standing atop Mt. Rainier with an ice axe in hand, hiking and camping with friends, or simply sharing a tender moment with Kate, AJ, and Haley. His love of life lives on through these special memories, and also through the generous gift of life via multiple organ donations. Our thoughts and prayers go out to his family and friends on this tragic and sudden loss.

## **JOHAN NILS HOPLAND**

**Johan Hopland** (EE68), age 76, died October 2, 2008, after a brief battle with lung cancer. He was born in Bergen, Norway. Johan attended Bergen Technical School and worked for NERA for ten years prior to emigrating to the U.S. in 1966. He graduated from the School of Mines and started his career as an electrical engineer with The Boeing Company. For nearly 30 years, he contributed to the successes of the 737, 747, 757, and 767 aircraft. He was a wonderful, loving, and devoted husband to his wife, Marion, for 52 years, and a loving and supportive dad to his four children: Thor, Lisa, Ole, and Morten. He also had a huge heart of gold for his two daughters-in-law, his five grandchildren, and his two great-grandchildren. Johan was a truly amazing bridge player. He always enjoyed visits to the beach at Ocean Shores, watching a good soccer game, and was probably the most "patient" golfer on the course. He lived life to the fullest and always shared a good

joke or his Norwegian sense of humor.

## **WILLIAM JAMES HUETHER**

**William "Bill" Huether** (ME80), 50, of Bismarck, North Dakota died October 22, 2008, at St. Alexius Medical Center. Huether was born in 1958. He graduated from Regent High School in 1976 and was the valedictorian. After graduation from the School of Mines, he received his master's degree in management from the University of Mary in 1991. During his time at the School of Mines, he met his future wife, Nancy Ash. They were united in marriage in 1981. After four years in the Twin Cities, they moved to Bismarck in 1985, where he was actively involved in a variety of professional engineering organizations and devoted to raising his two sons. He enjoyed the yearly family trip to Yellowstone where he was able to gaze at geysers until his heart was content. He also enjoyed hiking, fishing, working with home electronics, and spending time with his family. He is survived by his wife, Nancy; his sons and daughters-in-law, Christopher and Melissa and Joshua and Lindsay; and his three sisters.

## **RONALD EMERY HUSTON**

**Ronald Huston** (ME68) 67, died November 5, 2008, in Tucson, Arizona. He was born in 1940 in Rapid City, South Dakota. His family moved to Custer, South Dakota, in 1947, where he graduated from Custer High School. He married Dianne Kunert in Rapid City in 1963. He was employed by Caterpillar, Inc., for 32 years, a career which took him and his family to Hong Kong, China; Bangkok, Thailand; Geneva, Switzerland; and Peoria, Illinois. Huston enjoyed a variety of interests, including vintage and sports cars, off-road four-wheeling, golf, and other outdoor

activities. He valued his many friends and took great joy in his faith, which he shared easily with friends and acquaintances. He was a member of Dove of Peace Lutheran Church in Tucson. He is survived by his wife, Dianne; his son, Scott Huston (ME91), and family; his daughter, Paige; a brother, Duane Huston (ChE66); a sister, Lorna; and other dear family.

## **ALLISON STEVE KRIMBILL**

**Allison "Buzz" Krimbill** (ME65), 68, died November 4, 2008, at Fairview University Hospital in Minneapolis, Minnesota, after a courageous battle with cancer. Allison, lovingly known as "Buzz" to his family and friends, was a long time resident of Wahpeton, North Dakota. He was born in 1940 in San Diego, California. The family moved to South Dakota in 1947, settling in Mitchell, where he attended public schools and graduated from Mitchell High School in 1958. After earning his degree in mechanical engineering at the School of Mines, he spent the next 38 years as a professional engineer for Control Data Corporation and 3M-Imation in Wahpeton. A man of many interests, he never tired of his close friendships, especially with Pat and **Jack Mallow** (ME63). He very much enjoyed the outdoors, fishing, bird watching, walking, spending time at his remote cabin in northern Minnesota, and his winter home in Florida. He enjoyed travel to several Mexican resorts and the special Caribbean cruises with his loving companion, Carol. He enjoyed stamp collecting, playing bridge, solving puzzles, and reading, which occupied the times he was away from his children and grandchildren, who have always been the focus in his life. He was preceded in death by his loving wife and best friend of 37 years, Zoranda, in 1999. He is survived

# Memorials

by his two sons, Mark and Michael Krimbill; his daughter, Susan; their families, including three grandchildren; and many other family and friends, including his very loving companion, Carol Danner and her family.

## CANDIS JO KUB

**Candis Jo (Currey) Kub** (Geol69) was born in 1945, in Davenport, Nebraska. She was the only child of Clinton and Phyllis Brunning Currey. The family lived at various locations throughout Nebraska and South Dakota in accordance with Clint's career with the US Soil Conservation Service. Candy graduated from Rapid City Central High School in 1964 before attending the School of Mines as one of about a dozen women studying there at that time. From the wide selection of male engineering students around the world, she "picked" **Raymond Kub** (EE69). Their life together started with a wedding in 1966, the birth of their first son, Vincent, in 1967, and graduation in 1969. At graduation, Ray was commissioned into the US Army Signal Corps and his training and military career took the young family, which now included a second son, Steve, to Georgia, New Jersey, and Arizona. Candy informed Ray that if she could have a garden and a horse she would move back to South Dakota. So they moved in 1972 to Huron, where Teresa and Elaine were later born. Another move occurred in 1984 to the Kub family farm in Edmunds County. There, Candy operated the livestock operation while Ray's work with the Western Area Power Administration kept him busy traveling until his retirement in 2004. As a loving caretaker of all kinds of animals and a strong woman operating a working agricultural business, she was a powerful role model for her children, who also had responsibilities on the farm. They

celebrated 42 years of marriage before Candis passed away on December 30, 2008, at the age of 63. They raised four children with an emphasis on character, service, knowledge, and respect for animals and the environment. She was an active member of the Parmley Historical Home and Museum Board of Directors in Ipswich, most recently engaged in developing the Edmunds County Memorial Park. She also received great joy from learning and teaching through the Master Gardener's program. She was a past president of the Prairie Partners chapter. In addition to how well this organization fit with her desire to grow a verdant garden each summer and in her own greenhouse throughout the year, it allowed her to pass her knowledge along in a column which ran in the *Yard & Garden Newsletter* and with various children's organizations like the Tiger Post and New Beginnings. She believed the opportunity to plant a garden and care for living things gave children an enormous sense of purpose and satisfaction. In many ways, this was an extension of her time as a 4-H Leader in both Beadle and Edmunds Counties when her children were 4-H ages. She took enormous pride in their horse and dog training projects and sacrificed a lot of time and effort for her own children and many others within her clubs. Her personal nature was marked by an unfathomable compassion for living creatures. At home, it was her preference to read voraciously, cook new recipes with the bounty of her garden, or keep in active e-mail contact with her family and widespread friends. Recently, her desire to be active was starting to be frustrated by her health. However, since she did not complain, her family and friends were surprised by her loss. She will be greatly missed by her

husband, her children, her grandchildren, and numerous other family members and friends.

## DANIEL PETER LANDGUTH

**Dan Landguth** (EE68) was born May 1946, in Deadwood, South Dakota. He left his beloved family and friends on January 11, 2009, after a courageous, four-and-a-half month battle with brain cancer. He was a humble, generous, and thoughtful man of great integrity who was always a true gentleman. Landguth graduated from Lead High School in 1964. It was in Lead that he met the love of his life, Barbara Sankey, and married her in 1965. Their life together was a true love story and they raised four children together, hand-in-hand. After graduating from the School of Mines, he worked for PG&E in California before returning to Rapid City in 1969, where he began his 35-year career with Black Hills Power and Light — starting as a power use engineer and retiring as chairman, president, and CEO in 2005. He received an honorary doctorate of public service from the School of Mines in 2004. He was a wonderful husband, father, and grandfather and was always planning for an adventure that may have been as simple as making a birdhouse with a friend, fishing on the Big Horn River, or going on a memorable trip with Barb and friends. His children and grandchildren loved to hear him tell stories about his many hijinks while growing up in Lead in the 50s and 60s. The laughter from his family when he told of how, at a very young age, he and his twin, **Denny Landguth** (CE70), would catch wild chipmunks, train one to do tricks, and then sell the wild ones to tourists, never dulled over time. A very community- and civic-minded man, he lent his knowledge and leadership expertise to many organizations over the years. He loved the

beautiful Black Hills and especially Spearfish Canyon, fly fishing, his dogs, and Black Hills Corp, not necessarily in that order (depending if “the hatch was on”). He is survived by his loving wife, Barb; his daughters, Nancy and **Erin Landguth** (Math02); his sons, Mark and **Scott Landguth** (CE97); and their spouses and children. He is also survived by his best fishing buddy, his twin brother, Denny; his brother, Charles; and their families. He served on the Alumni Association Board, as a Foundation Trustee, received the Distinguished Alumni Award in 2001, and was always willing and able to support the students at his alma mater. His passing leaves a great void for all his beloved family, and indeed, in his cherished Black Hills community.

## ROBERT HENRY LUBKER

**Robert Lubker** (CE40) of Wellesley, Massachusetts, passed away peacefully in his sleep on November 24, 2008, in the early morning hours at the home of his sons, Tom and Jay Lubker of Framingham. He was 90. His Parkinson’s disease had worsened over the last five years and he was in hospice care at his sons’ home in Framingham for six months. Robert “Bob” Lubker was born in Columbus, Nebraska, in 1918. As a young man, he played baseball and used to hunt pheasant and ducks in South Dakota. He flew a private plane during his college years. Following his boyhood desire to be an engineer, he graduated from the School of Mines and held a position with the South Dakota State Highway Department. He later accepted a junior engineer’s position with the U.S. Engineer’s Office in Vicksburg, Mississippi, and worked on the design of an airport in Texarkana, Arkansas, and reservoirs in Mississippi. In 1942, Lubker was transferred to Little Rock, where he served as coordinator between his office

and the U.S. Engineer’s Office during construction of two 10,000-person Japanese Relocation Centers in the state. Anxious to enter the military, Lubker applied for, received, and accepted an appointment as Ensign CEC USNR in 1943, and was assigned duty with the 81st Naval Construction Battalion. After his release from active duty in 1946, he returned to his previous position with the U.S. Engineer’s Office in Vicksburg. Anxious to be involved with a construction project, he took a job with American Gas & Electric Company as an inspector of a power plant under construction in Scranton, Pennsylvania. After six months, he wanted a more challenging job and left Scranton and found one with E.J. Albrecht Co. in Chicago. Thinking it advisable to continue his education, MIT was his choice, and during the 1950-51 school year received a master’s degree in sanitary engineering. Shortly thereafter, he was hired by Charles A. Maguire Assoc. and worked on projects such as the “Water Resources on the State of Rhode Island” report, the design of the North Charles Relief Sewer in Cambridge, Massachusetts, and improvements to the Deer Island Wastewater Treatment Plant. In 1955, Lubker was employed by Metcalf & Eddy, where he remained for 37 years until his retirement in 1992. Lubker was a 51-year resident of Wellesley. He was a 30-year member of the Wellesley Wetlands Protection Committee and the former Conservation Commission for 24 years. He was also a member of American Legion Post 72, the Wellesley Veterans Council, the Navy Seabee Veterans of America, the Society of Military Engineers, and the American Society of Civil Engineers. He was awarded the Bronze Star for his participation in the D-Day assault on Utah Beach, Normandy, France. On May

19, 2007, at Boston Common, Lubker received the Knights Cross of the Legion of Honor from Francois Gauthier, Consul General of France in Boston. He also received the Wellesley Veterans Honor Award in September 2007. He held office as chaplain and secretary for the American Legion Post 72, and was treasurer for the Wellesley Veterans Council. He was a member of the Wellesley Tennis Association for many years. He was a member of the Maugus Club, where he bowled on both the couples’ and men’s leagues. Lubker coached Little League in Wellesley and was a Cub Master for the Cub Scouts. He was a member of Saint Andrew’s Episcopal Church for most of his life in Wellesley. He was a member of the First Families of Minnesota, and held a Pioneer Certificate as a descendant of his Norwegian pioneer grandfather, Carl Johan Johnson, who settled in Dakota Territory prior to statehood in November 1889. Lubker is survived by his wife of 65 years, Carolyn Elizabeth (Fish) Lubker; his three sons, Jay, Thomas, and Robert Jr. of Wellesley; his grandson, Scott Owen Lubker of Wellesley and Mashpee; and a sister. A memorial was established in his name at the SDSM&T Foundation for Destination Imagination.

## MELVIN BERNARD MEYER

**Melvin Meyer** (CE61), beloved husband and soul mate to wife, Rose Ann, passed away November 22, 2008, after a brief but courageous battle with cancer. He was born in 1938, at home in Arpan, South Dakota, to his parents and welcoming siblings, Kenneth and Shirley. After graduating in 1957 from Belle Fourche High School, the beginning of the beginning happened Christmas Day 1960, when Mel asked Rose Ann Holso to be his lifelong companion and wife. After graduating from the

# Memorials

School of Mines, they started their new life together as man and wife in June 1961. Of this union three children would be blessed upon them: Laura, Amber, and Tyson. During his professional career, he provided testimony to the United States Congress; authored numerous professional articles published in national and international publications; and was a speaker and lecturer at professional meetings throughout North America, the United Kingdom, and Europe. His most notable recognitions included recipient of the President's Award of the Iowa Traffic Control and Safety Association; President's Award of the Institutional Municipal Parking Congress; Chairman's Award of the ITE Technical Council; Distinguished Service Award of the Iowa Engineering Society; Who's Who in the Midwest Directory of Distinguished Americans; and Men of Achievement and Community Leaders of the World. His ultimate achievement was being elected the International President of the Institute of Transportation Engineers in 1984. In 1968, the City of Cedar Rapids, Iowa, appointed him as the city's first traffic engineer. He served the city 26 years until his retirement in 1994, when he and Rose Ann moved to Las Vegas, starting the second beginning of his life. His main goal was to raise his family with Rose Ann by his side, which he did beyond his children's expectations. He enjoyed his cactus garden, an occasional cribbage game, building and restoring antiques, but most of all, his family. He leaves behind his devoted wife of 47 years, his children and their families, including five grandchildren. He also leaves behind a brother, Kenneth; a sister, Shirley; and their families, including numerous nephews and nieces.

## **RON DEAN ONDROZECK**

**Ron Ondrozeck** (CE63) passed away March 31, 2008, after suffering a heart attack. He was born in 1941 in Canistota, where he attended Canistota High School. After graduating from the School of Mines, he attended UCLA where he earned a master of science degree in structural engineering. He was employed by the Los Angeles County Department of Public Works for 40 years. At the time of his retirement, he was the division engineer for Public Works' Operational Services Division. Grateful for having shared his life are his wife, Gretchen, of 25 years and stepsons, Jason and Scott, of Calabasas, California. He is survived by his brother, Larry, and family of Canistota. Ondrozeck and **Guy Newman** (CE64) were in the real estate rental business and operated a surveying and engineering business for many years. He was an active member of the Church of Later Day Saints in Woodland Hills, California.

## **JOHN ROBERT PAVLAT**

**John Pavlat** (EE55), age 75, a longtime Ames, Iowa, resident, died in August 2008 at Mary Greeley Medical Center in Ames. Pavlat was born in 1933 in Kimball, Nebraska. He graduated from Rapid City High School, then from the School of Mines, and subsequently from Iowa State University. While in college he was a radio/television engineer for KOTA/KOZY and for WOI. He taught at Iowa State University for 41 years in the Electrical and Computer Engineering Department. He married Margaret Westphal in 1959 in State Center, Iowa. The couple then lived in Ames where they were members of St. Andrew's Lutheran Church. He focused on his family and educating young people. He is survived by his wife, Margaret; son, David; and family, including

four grandchildren.

## **KEITH ORVILLE PRIUTT**

**Keith Pruitt** (former School of Mines staff member), 55, died March 5, 2009, at his home in Rapid City. He is survived by his fiancée, Marilee Hawkins, and her children and their families. He was preceded in death by his parents and his aunt. Priutt worked many years in the Electrical and Computer Engineering Department. He retired after health problems related to diabetes. He will be missed by all who knew him.

## **WILLIAM ELLSWORTH ROWE**

**William "Bill" Rowe** (ChE51), a wonderful 81-year-old man of North St. Paul, Minnesota, passed away on January 29, 2009, surrounded by his loving family. He is survived by his beloved wife, Verna; son, Steve; daughter, Cindy; and many cherished family members and friends. Retired after 33 years as an engineer with 3M, he was also a member of Daylight Masonic Lodge #348, Scottish Rite and York Rite bodies, 33rd Degree Honorary Mason, Ozman Shrine, Knight of the Red Cross of Constantine, and the American Legion Post #39. He was a kind and gentle man and will be missed by his many friends and relatives.

## **GEORGE DAVID RYAN**

**David Ryan** (ChE86), 46, died January 15, 2009, at Maryhouse TCU in Pierre. Ryan was born in 1962 in Sioux Falls. His family lived in Beresford and Mitchell before moving to Pierre in 1971. He attended St. Joseph Catholic School and Pierre Public Schools, graduating from Riggs High School in 1980. While in high school, he was active in football and basketball. After graduating from the School of Mines, he returned to Pierre and worked for the Department of Environmental

and Natural Resources (DENR) Water Resource Assistance Program. He worked on many rural water and wastewater projects, most recently the Lewis and Clark Water Project. He continued to work for DENR until his death. He was united in marriage to Cindy Sack in 1983 in Fort Pierre. He was a member of St. John's Catholic Church in Fort Pierre, and was also a member of the Knights of Columbus Little Flower Chapter. He enjoyed spending time with his family and camping. He also enjoyed cooking for family and friends, and was an excellent Dutch oven cook. Sports were a constant in his life and he especially enjoyed watching his children play basketball, baseball, and soccer. Ryan is survived by his wife, Cindy; son, Connor; daughter, Chloe; and many other family members and friends who miss him dearly.

## **THEODORE BURNELL SLATTERY**

**Ted Slattery** (GenE42) was a Marine who served in World War II, an innovator in the field of operations research, an adventurous globe-trotter, and a loving husband, father, and grandfather. He died on October 25, 2008, at the age of 90, in his home in Arlington, Massachusetts, after a long illness. He was born in Rapid City, South Dakota, in 1918. He graduated from the School of Mines and at the outset of World War II joined the Marine Corps. As a lieutenant, he served on the Island of Bougainville in the South Pacific, where he maintained the airstrip for allied bombing missions. After the war, he remained in the reserves and retired with the rank of major. On returning home from the war, he met Margaret "Marmie" Edwards at an officers' tea dance in the Biltmore Hotel in Santa Barbara, California. The two were married soon after at Mount Carmel Church in Montecito, California, in

1945. In his early career, Ted worked for General Electric's Technical Military Planning Operation (TEMPO) division in Santa Barbara, and in 1963, he was sent to Washington, D.C., to manage the new TEMPO office there. Three years later, he left GE to bring his systems analysis expertise to problems of educational advancement in underdeveloped countries. For almost 20 years, Ted had a far-ranging consulting career. He and Marmie worked and lived in exotic countries including Indonesia, Malaysia, the Gambia, and Greece. As someone who always stood up for the "underdog," he had a special rapport with his colleagues in third-world countries. He and Marmie retired to a home on Megquier Island on Thompson Lake in Oxford, Maine. With a large sloping lawn, a lakeside dock, and many indoor and outdoor places to explore, the home was the site of many happy visits by grandchildren and family gatherings. The couple moved to Arlington, Massachusetts, in 2005. He is survived by his wife; their three children, Richard, Kerry, and Celia; and eight grandchildren.

## **LARRY LEO THIES**

**Larry Thies** (MetE63) passed away in January 2008 at the Linton Hospital in Linton, North Dakota. He was born in 1942 on a farm in rural Campbell County, South Dakota. He attended grade school at Bertsch Country School, one mile from the farm. He attended Selby Area High School and graduated in 1959. He graduated from the School of Mines in 1963. During the summer, he worked on his family farm and also at the Anaconda Mine in Montana. After graduating college, he worked for a short time for John Deere in Illinois before returning to take over the family farm. He lived on the farm from then on. He met Carol Cowles in December 1965

and the couple married in 1966 in Mellette, South Dakota. His life was wrapped around all the aspects of running a farm and caring for his children and grandchildren. He enjoyed raising cattle and reading. He is survived by his wife, Carol, of Java; two sons, Dwayne Thies (ChE93) and Greg Thies (MetE03) and families, including daughter-in-law Billie Jo Thies (GenSt01); two daughters, Sherrie and Melissa; and family, including eight grandchildren, one brother, and numerous nieces and nephews. He will be missed by many beloved family members and dear friends.

## **CARROLL LESLIE VAN OURKERK**

**Carroll Van Ourkerk** (CE34) of Springfield, Oregon, passed peacefully into his Lord and Maker's arms in June 2008 at the age of 95. He was married to Eva Van Ourkerk and retired from Orshansky Transmission Corporation.

## **JACK M. WALDEN**

**Dr. Jack Walden** (Phys44) 86, of Loveland, Colorado, passed away at his home on November 23, 2008. He was born in 1922 in Sheridan, Wyoming. He grew up in Sheridan before attending and graduating from the School of Mines. While in college, he met Nancy Lyon and they were married in 1946 in Fairbanks, Alaska, where Jack was working as an engineer at the local radio station. He built Alaska's first television station. After 16 years in Alaska, the family moved to Stillwater, Oklahoma, where he taught at Oklahoma State University and earned his master's and Ph.D. degrees in electrical engineering in 1961 and 1964, respectively. The family moved to Loveland in 1969 where he went to work at Hewlett-Packard. He branched out to the private sector in 1978 and retired

*Continued on page 75*

# Personnel Changes

## Welcome:

**Alicia L. Allen**, CSA, secretary, mechanical engineering (2/23/09)

**Keith Flanagan**, faculty, instructor, chemical and biological engineering (1/22/09)

**Dr. Sang-Bok Lee**, exempt, research scientist I, mechanical engineering (1/22/09)

**Dr. Charles R. Tolle**, faculty, associate professor, electrical and computer engineering (1/6/09)

**Brandon J. Hinz**, exempt, research scientist I, mechanical engineering (12/15/08)

**Diane L. Godfrey**, CSA, secretary, academic and enrollment services (12/1/08)

**Vickie L. Magnuson**, CSA, secretary, chemistry (10/27/08)

**Dr. Md Shameem Hasan**, exempt, research scientist I, chemical and biological engineering (10/15/08)

**Dr. Chi-Ming Lo**, exempt, bioprocessing research engineer, Center for Bioprocessing Research and Development (9/22/08)

**Barbara A. Mustard**, CSA, accounting assistant/event services, Surbeck Center-Scheduling (9/22/08)

**Genene Sigler**, CSA, senior secretary, admissions (9/18/08)

**Roxanne C. Hammond**, CSA, secretary, electrical and computer engineering (9/16/08)

**Dr. David R. Coleman**, exempt, research scientist I, chemical and biological engineering (9/12/08)

**Scott E. Rausch**, faculty, instructor, electrical and computer engineering (9/12/08)

**Beth A. Francis**, CSA, secretary, College of Engineering/College of Science and Letters (9/8/08)

**Elvan Uzunlar**, faculty, instructor, humanities (9/2/08)

**Dr. Brijes Mishra**, faculty, assistant professor, mining engineering and management (9/1/08)

**Dr. Damon R. Fick**, faculty, assistant professor, civil and environmental engineering (8/22/08)

**Rachel Janzen**, exempt, assistant women's basketball coach, Intercollegiate Athletics (8/22/08)

**Dr. Kurt W. Katzenstein**, faculty, assistant professor, geology and geological engineering (8/22/08)

**Mitchell A. Ruedebusch**, faculty, instructor, College of Engineering (8/22/08)

**Dr. John F. Sawyer**, faculty, assistant professor, geology and geological engineering (8/22/08)

**Dr. Ziliang Zong**, faculty, assistant professor, mathematics and computer science (8/22/08)

## Farewell:

**Katherine A. Standish**, faculty, instructor, chemical and biological engineering (2/21/09)

**Elaine Mundell**, CSA, educational programs and professional conferences (1/16/09)

**Dr. Linxia Gu**, faculty, mechanical engineering (1/2/09)

**Yun Zhao**, exempt, materials and metallurgical engineering (12/31/08)

**Joseph Zogg**, exempt, athletics (12/31/08)

**Elizabeth M. Honaker**, exempt, athletics (12/21/08)

**Dr. Li Liu**, exempt, chemistry (11/26/08)

**Dr. Perry Marteny**, exempt, Composites and Polymer Engineering Laboratory (11/17/08)

**Dr. Ke Wang**, exempt, chemistry (10/31/08)

**Coleen L. Moses**, CSA, electrical and computer engineering (10/14/08)

**Dr. Karen L. Updegraff**, exempt, Institute of Atmospheric Sciences (9/30/08)

**Kathleen Amiotte**, CSA, academic and enrollment services (9/12/08)

**Daniel N. Hodack**, CSA, admissions (8/29/08)

**Patricia J. Goldammer**, CSA, Surbeck Center (8/16/08)

## Change:

**Anthony K. Amert**, from exempt, research engineer II, electrical and computer engineering, to exempt, research scientist III (1/1/09)

**Susan M. Stelter**, from CSA, accounting assistant, business and administration-administrative services to CSA, budget analyst, business and administration-administrative services (12/8/08)

**Dr. Larry A. Simonson**, faculty, electrical and computer engineering, to exempt, assistant dean for advancement, SDSM&T Foundation (9/30/08)

**Tamara M. Moore**, from CSA, secretary, academic and enrollment services, to CSA, program assistant I, academic and enrollment services (9/15/08)

**Andrew Brady**, from exempt, composites and polymer processing specialist, Composites and Polymer Engineering Laboratory, to exempt, composites and polymer engineer, Composites and Polymer Engineering Laboratory (8/22/2008)

**Brad Jorgenson**, from exempt, composites and polymer processing specialist, Composites and Polymer Engineering Laboratory, to exempt, composites and polymer engineer, Composites and Polymer Engineering Laboratory (8/22/2008)

**Reeny Wilson**, from exempt, director of residence life and Surbeck Center/judicial officer, Residence Life/Surbeck Center, to exempt, director of residence life and Surbeck Center/student conduct administrator, Residence Life/Surbeck Center (8/1/2008)



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# School of Mines



During the annual Children's Holiday Party, children received gifts, met Santa, and heard a special holiday story from President **Robert A. Wharton, Ph.D.**



The School of Mines raised \$470 during the Rapid City Regional Hospital's "Tough Enough to Wear Pink" fundraiser.

# Reaching Out



*During the 2008 United Way Day of Caring, a team of School of Mines students and staff donated their time by doing yard work for an older couple and washing windows for an elderly woman.*



*Nearly 350 elementary, middle, and high school students learned about the scientific concept of pressure during Dr. **Carter Kerk's** Bed of Nails demonstration, part of the 32nd Engineers Week celebration.*



*More than 100 students participated in Circle K International's Trick or Treat for Canned Food. The students collected more than 2,000 lbs. of food during the event.*



*Hundreds of students viewed chemistry in action during E-Week's annual Chemistry Magic Show.*

## class NOTES

*Continued from page 62*

the first 100 people on their red carpet at 6 a.m. (in costume) would receive a year's worth of movie passes. Along with some of our friends, we decided to camp out at the theatre all night! So if you're in the area and want to see a movie — give us a ring!"

NorthWestern Energy announced recently that **Dan Wolf** (EE04) has been named area manager in Kearney, Nebraska. Wolf will be responsible for the day-to-day oversight of the Kearney operations. Wolf is a Canton, South Dakota, native and is currently working on his master's in technology management at the School of Mines. Wolf's professional career began at NorthWestern Energy in October of 2005. Wolf is involved with Kiwanis and Yankton Verve. Dan and his wife, Heidi, are active in the community of Yankton, as well as various activities within their church. NorthWestern Energy is one of the largest providers of electricity and natural gas in the Upper Midwest and Northwest, serving approximately 650,000 customers in Montana, South Dakota, and Nebraska, see <[www.northwesternenergy.com](http://www.northwesternenergy.com)>.



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**As we celebrate Dr. Karen Whitehead's 28 years of service to the university**

Dr. Karen Whitehead, provost and vice president for academic affairs, retires after 28 years at the School of Mines.

Celebrate with Dr. Whitehead and others on a hike up Harney Peak on Saturday, June 20, 2009.

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See <<http://sdmines.sdsmt.edu/provost>> or call (605) 394-2554 for more information.

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# Memorials

*Continued from page 69*

in 1988. His interests were in ham radio operation, music, and computers. His love of music led him to install a 14-rank theater pipe organ in his home. He was a member of IEEE and American Theatre Organ Association. Jack is survived by his sons, Nathan and Bruce; daughters, Vicki, Judy, and Gale; and their families, including nine grandchildren and 10 great-grandchildren. His wife of 59 years, Nancy, passed away in 2005.



## LandSat 7 Image of the Black Hills



### South Dakota School of Mines and Technology Alumni Association

This high-resolution, full-landscape image ships digitally printed on 20"x40" matte finish paper. Prints are available for \$20.00 PLUS \$5.00 shipping and handling\*, which includes a color description sheet denoting image landmarks, and ships in a 3" mailing tube. The SDSM&T Alumni Association thanks you for your support through your purchase of this panoramic print.

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## Join the SMART Team!

Our new recruiting effort is referred to as the **School of Mines Alumni Recruitment Team, or SMART.**

As a part of our expanded recruiting effort, we are looking for alumni assistance in various areas throughout the country. As an alum, your story of your experience can be one of the university's best recruiting tools. Through sharing your story of your education and life experience at the School of Mines, you can help paint a vivid picture of the potential experiences awaiting a bright young mind.

**Sign up for the SMART team today!**

<<http://sdmines.sdsmt.edu/smart>>

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### How YOU can help:

- Visit high schools in your area
- Host a Mines Info Night
- Present scholarships
- Identify prospective students
- Represent Mines at a college fair
- Host an event at your home or place of business
- Work shadow a prospective or current student

SOUTH DAKOTA



SCHOOL OF MINES  
& TECHNOLOGY



**SMART Coordinator Pete Roberts**  
<[pete.roberts@sdsmt.edu](mailto:pete.roberts@sdsmt.edu)>  
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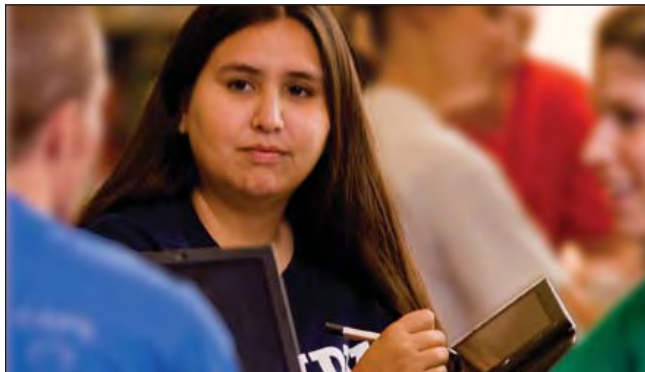
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## Student Spotlight Continued from page 26

diversity in medicine by encouraging undergraduate, minority students — particularly African Americans, Native Americans, and Latinos — to consider careers in medicine.



*Deanna Shoup (IS, Rapid City)*

### Students participate in SHED

A group of School of Mines students traveled to Pierre to participate in the Student Higher Education Days (SHED) at the South Dakota Legislature. During the event, students from across South Dakota lobbied the state legislature on behalf of higher education. The students: **Marcus Bartlett** (IE, Firesteel), **Lukasz Dubaj** (IS, Rapid City), **Brandon Lampe** (Geol/GeolE, Salem), **Matt Schulte** (ME, Geddes), **Christopher Weyer** (CEng, Sturgis), **Erica Kjar** (Eng, Akron, Iowa), **Carrie Reed** (ChE, Huron), and **Sterling Ziegler** (MinE, Scottsbluff, Neb.).



Back row (l-r): **Carrie Reed** (ChE, Huron), **Erica Kjar** (Eng, Akron, Iowa), **Sterling Ziegler** (MinE, Scottsbluff, Neb.), and **Lukasz Dubaj** (IS, Rapid City); front row (l-r): **Marcus Bartlett** (IE, Firesteel), **Brandon Lampe** (Geol/GeolE, Salem), **Matt Schulte** (ME, Geddes), and **Chris Weyer** (CEng, Sturgis).

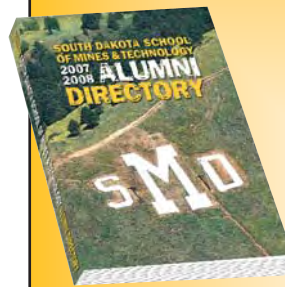
### Student Organizations Recognized by Board of Regents

Three student organizations at the School of Mines have been recognized by the Board of Regents for their outstanding organizational leadership and academic and community work. The organizations: Engineering and Scientists Abroad — Award for Academic Excellence; Institute of Industrial Engineers — Community Service Award; and Baja SAE — Award for Organizational Leadership.



## KEEP IN CONTACT!!

The 2007-2008 SDSM&T Alumni Directory includes information on your classmates and friends from around the globe.



New in this edition are indices that include graduate's majors and years; alumni award recipients, and lifetime contributors.

Please mail your check for \$35 (includes tax and shipping) with a memo for "Alumni Directory" to:

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# Calendar of Events

Visit the on line calendar for details:

<<http://calendar.sdsmt.edu>>

For details about K-12 events:

<<http://sdmines.sdsmt.edu/SDTechK-12>>

For details about athletic events:

<[www.gorockers.com](http://www.gorockers.com)>

For details about adult and professional educational opportunities:

<<http://sdmines.sdsmt.edu/learn>>

## May 1-19

Adult and Professional Classes and Conferences

<<http://www.sdsmt.edu/learn/professional>>

## May 4-8

Final Exams

## May 5

Cinco de Mayo Celebration  
Surbeck Center Ballroom

## May 6

Employee Service Awards  
Surbeck Center Ballroom, 3 p.m.

## May 8

Native American Feathering Ceremony  
Surbeck Center Ballroom, 2 p.m.

## May 9

Spring Commencement and Presidential Investiture  
Rushmore Plaza Civic Center, 9 a.m.

## May 11

West River Math Contest  
Payment Day

## May 25

Memorial Day Holiday - No Classes

## June 1

Payment Day  
5th Annual School of Mines & Community Golf Tournament  
Arrowhead Golf Course

## June 7-August 19

Youth Camps and Classes. See details at:  
<<http://sdmines.sdsmt.edu/learn>>

## June 14-15

Orientation: FIRST Connections I

## June 25-26

South Dakota Board of Regents Meeting -  
Brookings, S.D.

## June 21-26

Youth Engineering Adventure (YEA)

## June 28-29

Orientation: FIRST Connections II

## July 4

Independence Day Holiday - No Classes

## July 25

Visit Mines

## July 30

Information Night  
Higher Education Center - West River, 4 p.m.

## August 6-7

South Dakota Board of Regents Meeting -  
Spearfish, S.D.

## August 8

Football/Volleyball Orientation

## August 24

President's Welcome and Convocation -  
Surbeck Center Ballroom, 9:30 AM

## August 27

New Faculty, Staff, Exempt, and CSA  
Employee Orientation - Surbeck Center  
Bump Lounge, 8 AM

## August 27

International Student Orientation

## August 29-30

FIRST Adventure

## August 30 - September 4

Welcome Week

## August 31

Mini Orientation  
Tablet PC Orientation  
Evening Classes Begin

## September 1

Classes begin  
Tablet PC Orientation

## September 2

Payment Day

## September 7

Labor Day Holiday - No Classes

## September 12-19

M-Week

## September 18

M Day

## September 19

Hardrock Club Hall of Fame Banquet  
Christensen Hall of Fame, 6 p.m.

## September 29

Fall Career Fair, Surbeck Center Ballroom

## October 1-2

NASA South Dakota Space Days

## October 6-7

Appraising & Developing Unconventional  
Gas Reservoirs  
Surbeck Center Ballroom, 8 a.m.

## October 8

Native American Day Screening of  
"Imprint"  
Chemistry Building Room 228, 11 a.m.

## October 8-9

2009 Rocky Mountain Unconventional Gas

Conference

Surbeck Center Ballroom, 8 a.m.

## October 12

Native American Day Holiday - No  
Classes

## October 14

Mines Medal  
Rushmore Plaza Civic Center, 6 p.m.  
<<http://mines-medal.sdsmt.edu>>

## October 14-15

South Dakota Board of Regents Meeting -  
Rapid City, S.D.

## October 15

Mines Medal  
EROS Data Center, Sioux Falls, 6 p.m.  
<<http://mines-medal.sdsmt.edu>>

## October 18

Red Ribbon Alcohol Awareness Parade  
and Luncheon

## October 23

Midterm

## October 31

Halloween

## November 7

Visit Mines

## November 11

Veterans Day Holiday - No Classes



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SOUTH DAKOTA



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request the honor of your presence at the

INVESTITURE OF

*Robert A. Wharton, Ph.D.*

AS THE

EIGHTEENTH PRESIDENT

OF THE

**SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY**

Saturday, May 9, 2009  
9:00 a.m. in the Rushmore Plaza Civic Center Arena  
Rapid City, South Dakota

Send a message of congratulations to President Wharton or  
contribute to the Robert A. Wharton scholarship fund at

<<http://president.sdsmt.edu/congratulations>>

*We are planning to see you next year!*



**For more information, please  
contact us at the Alumni Office.**

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501 E. St. Joseph Street  
Rapid City, SD 57701-3995  
(605) 394-2347 (phone)  
(605) 394-2383 (fax)  
<[alumni@sdsmt.edu](mailto:alumni@sdsmt.edu)> (e-mail)  
<[www.sdsmt.edu/alumni](http://www.sdsmt.edu/alumni)> (web)

Planning for the 5-Year Reunion — July 7-11, 2010  
— is underway and we look forward to seeing  
thousands of alumni and friends on campus next  
year.

The 2010 Reunion co-chairs **Gary Callahan** (ME70)  
and **Monte Dirks** (MetE78) are leading the effort to  
make this a memorable and fun reunion. The event  
also coincides with our alma mater's 125th  
Anniversary (1885-2010) and will see several new  
and renovated buildings on campus.

Please watch for more information to come later in  
the summer regarding the many Reunion events,  
general and special event pre-registration, and  
accommodations.

To relive the memories of the 2005 Reunion  
through photos and more, please visit the  
<<http://sdmines.sdsmt.edu/reunion>> webpage.

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# Mines Memories

## Did you know that...

In the late 1950s, Guy E. March (EE22), then mathematics department head and Alumni Association director, asked alumni and friends of the School of Mines to help give students a place to work together and play together?

After opening its doors in 1963, the Surbeck Center became the living room to thousands of students, featuring a barber shop and record-listening rooms.



Today, the Surbeck Center continues to provide the campus and the community with meeting and banquet space, but is often at capacity. Students voted more than a year ago to raise student fees to update the dining center, infrastructure, office/service space efficiencies, and other needs. Renovation is slated to be complete by the start of the Fall 2009 semester.



*Student Regent **Melanie Satchell** (interdisciplinary sciences, Pleasanton, Neb.), President **Robert A. Wharton**, and **Michael Graves** (mechanical engineering, Hartford), review construction plans.*



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