

News from Holden Hall

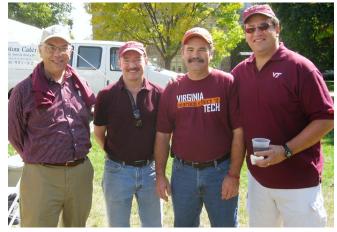
Department of Mining and Minerals Engineering Virginia Polytechnic Institute and State University

Volume 3, Issue 2 Fall 2011

The Mill Report —Dr. Greg Adel, Professor and Department Head

As the faculty prepares for the end of the semester and the Hokies prepare for the Sugar Bowl, it is time again for the latest edition of *News from Holden Hall*. I have truly enjoyed putting this newsletter together over the past several years. It has been a great way to stay in touch with alumni and to fill everyone in on the happenings within the Department.

And what a story we have to tell! I am thrilled to report that the Department is experiencing record enrollments in all areas. With 175 undergraduates and nearly 40 graduate students, we are literally bursting at the seams. The Class of 2012 will be relatively small at 22 projected graduates. However, with over 90 sophomores taking Introduction to Mining Engineering, we are expecting near record graduating classes for 2013 and 2014. The



Dr. Greg Adel and Dr. Jerry Luttrell (left, center left) stand with Class of 1984 alumni Waverly Hale (center right) and Mike Mankosa (right) at Foresight Energy's tailgate party.

significant growth in the graduate program has required some remodeling, and I am sorry to say that we have had to sacrifice 134 Holden Hall (the lounge) for graduate student office space. Nevertheless, we are committed to quality space for our undergraduates, and we are now in the process of renovating our undergraduate computer laboratory to increase the functionality of this space. Of course, growth without additional resources is not sustainable, and I am happy to report that we have been given permission to expand to nine faculty members. Thus, we are currently conducting a search for a new assistant professor and we hope to be able to profile our new faculty member in the Fall 2012 issue of *News from Holden Hall*.

No matter how big we get, it is important to remember that this Department will always maintain its focus on excellence; the excellence of our students, the excellence of our faculty and staff, the excellence of our research, and the excellence of our alumni. In this issue of *News from Holden Hall*, you will see some examples of this excellence. For example, you will learn about the latest awards and honors presented to our students at our spring 2011 awards banquet. You will also hear about our outstanding seniors who have placed first in the Carlson Software Senior Design Competition for five years in a row. You will learn about some of the latest research initiatives on carbon sequestration and rock mechanics being directed by our faculty and you will hear about honors being bestowed on our outstanding research staff. Finally, you will learn about the induction of Paul Barbery (Class of 1959) into the College of Engineering Academy of Engineering Excellence. Of course, none of this would be possible without the continued support of the mining industry, our alumni, and our friends. Those individuals and companies who support our program are

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acknowledged in "Thank You to Our Donors." Nearly everything we do from paying our phone bill, to running our copy machine, to funding our Writing and Communications program is paid for in part by donations. If you would like to help us remain strong, please make sure to earmark your gift to **Mining and Minerals Engineering**.

Finally, please take a look at our latest "Blast from the Past." Since I didn't receive any pictures from alumni, I went back to the archives of the Bugle. This latest picture goes back a ways, so I hope there are some alumni who can help us out with the identification. In addition, we were able to get most of the people from the Spring 2011 "Blast" identified, but we could still use some help with that one. So get out your magnifying glasses, take a look at the pictures, and please enjoy this latest issue of *News from Holden Hall*.

Dr. Greg Adel Head, Department of Mining and Minerals Engineering Virginia Tech

Highlights from the 2011 Scholarship and Awards Banquet

Over two hundred students, family members, alumni and industry representatives gathered on April 1, 2011 for the department's annual Scholarship and Awards Banquet, held at the Inn at Virginia Tech in Blacksburg, VA.

As it does each year, the Mining and Minerals Engineering department took time to recognize the accomplishments and achievements of students, alumni and faculty throughout the evening, which commenced with a reception and gourmet dinner prepared by the Inn.



Paul S. Barbery and Michael Kiser



Rosemary Patterson and Jerry Luttrell

Highlights of the 2011 ceremony included the awarding of a new scholarship from aerospace giant **Lockheed-Martin**, presented to junior Andrew Louk by Joe Pasco. Ben Hatfield ('79), Executive VP and COO of Patriot Coal, inducted senior Erich Dohm as a new member of the **Old Timer's Club**. The **J. Richard Lucas Award**, honoring former professor and department head Dick Lucas, went to Cory Mills, a former president of Virginia Tech's Women in Mining chapter.

The **Paul S. Barbery Award**, which supports graduate students at the beginning of their studies, was presented to Michael Kiser, who is conducting research in coal preparation. Dr. Luttrell presented the **Outstanding Graduate Student Award at the Master's level** to Rosemary Patterson for her efforts in mine ventilation research under the guidance of Dr. Luxbacher.

These are some of the many awards and honors conferred during the Banquet, and the department congratulates all recipients for their achievements. Thank you again to the many donors and sponsors whose generosity continues to ensure the success of the mining and minerals engineering program.



Andrew Louk and Joe Pasco



Erich Dohm and Ben Hatfield



Cory Mills and Erik Westman

Virginia Tech Mining Students Take 1st Place for Fifth Straight Year in Carlson Software National Senior Design Competition

Students from Virginia Tech's Department of Mining and Minerals Engineering recently won first place in Carlson Software's National Senior Mine Design Competition, marking the fifth straight year Virginia Tech students have placed first in the prominent mine design competition.

Class of 2011 seniors Eric Dohm, Wilson Lin and Jason Yeager won this year's event with their project "Flat Creek Quarry," a proposed greenstone hard rock quarry located in Virginia's south central Piedmont region.

Carlson Software specializes in CAD design software for civil engineering, construction, and mining industries and sponsors the annual competition open to ABET accredited mining engineering schools. "The competition allows Carlson to support the mining industry directly," said Steve Richards, director of Carlson's Mining Sales and Support division. "It helps



Erich Dohm (left), member of the 2011 winning team, is presented with 1st Place Award from Steve Richards of Carlson.

students as they prepare to step into the working world at a time when a little money and a resume enhancer are appreciated. It also serves as a good indicator of a university's effectiveness in mining engineering."

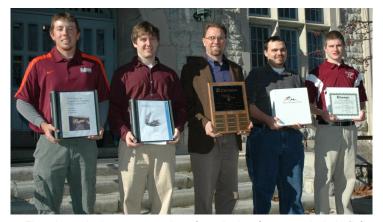
Student teams submit a complete mine feasibility and design report, prepared as part of their Senior Design Project—a capstone course in which students design a mine from exploration to closure, drawing from over three years of mining engineering education. "The students went into the competition with a great report," said Erik Westman, associate professor and instructor of the Senior Design course. "Their project stood out for being technically complete and clearly written."

Projects are judged by a panel of Carlson engineers and private industry consultants and are evaluated on more than 30 categories. "One of the things I really appreciate is the consistency of format and professional appearance of

the presentation," Richards said of the Virginia Tech team project. "The completeness must be there to be considered."

Virginia Tech's mining students have enjoyed a string of successes in the Carlson Software competition. In addition to coming in first place for five consecutive years, they have ranked in the top three places twelve out of the competition's fourteen years. "Virginia Tech has done very well over the years," noted Richards. "Dr. Westman is doing a great job with the Senior Design course. The professionalism of the reports consistently stands out, and I credit some of that to the department's writing program as well."

"In my opinion, Virginia Tech's success in the Carlson Senior Design Competition says a lot about the quality of this program and the faculty involved," remarked Greg Adel, Mining and Minerals Engineering Professor and Department Head. "And I think specific credit goes



First place winning team members from the last four years include (left to right): Travis Tyndall (2008 team, mining engineer with Vulcan Materials), Aaron Noble (2009 team, doctoral student and Dean's Teaching Fellow), Erik Westman (Associate Professor and Senior Design Project instructor), Mike Kiser (2010 team, graduate student), and Erich Dohm (2011 team, graduate student).

to Dr. Erik Westman who provides the technical guidance on our senior design projects and Mr. Angelo Biviano, Director of our Writing and Communications Program, who works with our students on their written presentations. We are the only mining engineering program in the country that has a full-time instructor dedicated to undergraduate communications skills, and I think the results speak for themselves."

The winning team received an award of \$2,000, along with a certificate of achievement for each member, during the Joint Fall Meeting of the Kentucky Coal Association (KCA) and Central Appalachian Section of SME (CAS), held in Lexington, Kentucky this past October. The win is also noted on a running competition plaque in the Department.

Thank You to Our Donors

The generosity of our alumni, friends, and corporations never ceases to amaze me. Even during these difficult financial times, our donors have stepped up to increase giving by nearly 20% during Fiscal Year 2011. We literally could not operate the department without this support. The support we receive from individuals and corporations is truly invaluable to us and we would like to extend a heartfelt thank you to the following donors for their support.

Individual Donations

1950's

Akers, Peter (Class of 1950)
Barbery, Paul (Class of 1959)
Billlings, Virginia (Wife of the late George
Billings – Class of 1953)
Bucklen, O.B. (Class of 1959)
Lagesse, Melissa Bucklen (Daughter of the
late Ellis P. Bucklen – Class of 1954)

1960's

Bucklen, Jerry (Class of 1962) Skaggs, Gary (Class of 1968) Suboleski, Stan (Class of 1967)

1970's

Blevins, Carl (Class of 1975)
Bolen, Richard (Class of 1970)
Breedlove, John (Class of 1979)
Hatfield, Dennis (Class of 1979)
Lineberry, G.T. (Class of 1977)
Marcum, Ronnie (Class of 1970)
Ross, Timothy (Class of 1976)
Smith, Bryan (Class of 1979)
Snavely, Charles (Class of 1978)
Vickers, Don (Class of 1979)
White, David (Class of 1974)

<u>1980's</u>

Bartkoski, Mark (Class of 1981) Brown, Mike (Class of 1983) Forrest, Richard and Margie (Class of 1983 and 1984)

Johnston, G.B. Jr. (Class of 1980)
Little, David (Class of 1983)
Lusk, Lacy (Class of 1984)
Nicewonder, Kenneth (Class of 1981)
Prelaz, David (Class of 1984)
Whipkey, Kevin (Class of 1983)

1990's

Babcock, Jason (Class of 1999) Barksdale, Drew (Class of 1998) Boyt, John (Class of 1995) Bush, Terry (Class of 1996) Donovan, James (Class of 1997)

2000's

Ellis, John (Class of 2005)
Fisher, Dustin (Class of 2004)
Meador, David (Class of 2009)
Mitchell, Thomas (Class of 2007)
Murphy, Tyson and Crystal (Class of 2006)
Relyea, Caroline (Class of 2009)
Smith, Joshua (Class of 2006)
Sprague, Nick (Class of 2009)
Sprick, Paul (Class of 2006)
Statham, Stephen (Class of 2006)

2010's

Pippin, Jonathan (Class of 2010)

Other Donors Lucas, Eric Poling, Louis Quillen, Mike Stephenson, Bill

Corporate Donations

Alpha Natural Resources Appalachian Technical Services Arch Coal Caraill Central Appalachian Section - SME Cliffs Natural Resources Consol Energy Foresight Energy Freeport-McMoRan Heintzmann Corporation Jewell Smokeless Joy Mining Machinery Lockheed Martin Marshall Miller Massey Foundation Mosaic Nalco Chemical Company **Newmont Mining** Oldcastle Materials Outotec Peabody Energy Polydeck Salem Stone Corporation Southern Coals Conference

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Vulcan Materials

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If you have donated to Virginia Tech during Fiscal Year 2011 and your name is not listed above, it is possible that your donation did not come to this department. Please be sure to specify "Mining Engineering" on your check. Donations made to any other entity may go elsewhere. Likewise, if you have donated directly to the Burkhart Mining Society or one of our other student organizations, these donations do not come through the Department. Nevertheless, these donations are important to us and we thank you for helping with student activities. Finally, if you prefer to donate online, we have now established a link on our website for giving to the Department. Go to http://www.mining.vt.edu/sponsors/giving.htm to donate online via credit card. Please be sure to follow the instructions provided so that that your gift goes directly to the Mining and Minerals Engineering Department.



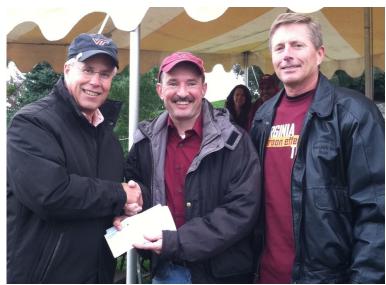
Dr. Greg Adel and Angela Lichvar of CONSOL Energy

Alpha Natural Resources Continues Support of VT Mining and Minerals Engineering Program

Alpha Natural Resources continued its support for Virginia Tech's mining and minerals engineering program by presenting the department with a check for \$75,000. This is the second installment on a pledge of \$150,000 made last year by the nation's third largest coal producer.

Alpha Natural Resources CEO Kevin Crutchfield and President Kurt Kost presented the check to Dr. Jerry Luttrell, assistant department head and Massey Professor, during the Alpha Tailgate prior to the VT-Clemson football game on October 1.

Alpha's pledge reflects the close relationship between the Abingdon, Va.-based coal company and Virginia Tech's mining engineers. According to Crutchfield, "Virginia Tech graduates have what it takes to be smart, capable and energetic employees." In the past five years, Alpha Natural Resources has hired more of Virginia Tech's



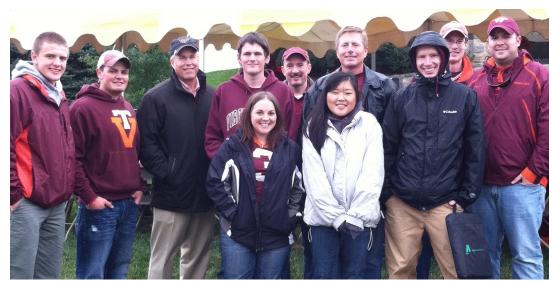
Alpha Natural Resources CEO Kevin Crutchfield (left) and President Kurt Kost (right) present Massey Professor and assistant department head Dr. Jerry Luttrell with a check \$75,000 at the VT-Clemson home football game on October 1. 2011.

Mining and Minerals Engineering graduates for permanent and summer internship positions than any other coal company, making it affectionately known as the "Hokie Coal Company."

"Alpha routinely hires our graduates, provides valuable work experience for our summer interns, and helps support our research," noted Dr. Greg Adel, Mining and Minerals Engineering department head and professor. "In turn, we provide high-quality engineers to support their business, short-courses to train their

work force, and research solutions for their technical problems. Alpha's donation is invaluable in helping us sustain a high-quality program."

Alpha Natural Resources is one of America's premier coal suppliers with affiliate coal production capacity of more than 90 million tons a year. Alpha is the nation's leading supplier and exporter of metallurgical coal used in



Dr. Jerry Luttrell and students from Virginia Tech's Mining & Minerals Engineering department stand with members of Alpha Natural Resources during Alpha's VT-Clemson Tailgate.

the steel-making process and is a major supplier of thermal coal to electric utilities and manufacturing industries across the country. Alpha and its affiliates employ approximately 6,400 people and operate more than 60 mines and 14 coal preparation facilities in the regions of Northern and Central Appalachia and the Powder River Basin.

Dr. Erik Westman Awarded \$1.25 Million NIOSH Grant to Study Mining Safety

Dr. Erik Westman, Associate Professor in the Department of Mining and Minerals engineering, has been awarded a five-year \$1.25 million grant from the National Institute for Occupational Safety and Health (NIOSH) and will serve as principal investigator in a study which seeks to improve mining safety and to help train the next generation of professionals in the field.

The grant from NIOSH is aimed at reversing the declining number of professionals with expertise in the control of ground movements in mining operations and to positively impact mine safety by the increased use of some of the latest technologies available to industry.



Dr. Erik Westman

The project focuses on using the latest technologies in mining, including: wireless data transmission, laser scanning for ground deformation, and microseismic tomography for improved understanding and quantification of rock mass response. These recent advances need to be moved to the actual mining locations to ultimately achieve improved pillar design and roof support in mines. "We need efficient production combined with greater safety. Although great strides have been made in the safety of mining, the goal remains that no worker suffers an injury," Westman said.

Statistics kept by the U.S. Department of Labor, Mine Safety and Health Administration show that 16 percent of fatalities and lost time in the underground mining industry "are due to unexpected rock mass failure," Erik Westman explained. The problem in administering new mine safety technology is the "shortage of researchers and personnel trained in rock mechanics and ground control."

Working alongside Westman on the project are his department colleagues Mario Karfakis, Associate Professor, and Michael Karmis, who holds the Stonie Barker Professorship.

Using this grant, four Virginia Tech mining engineering graduate students will quantitatively measure the ground response in four different geological settings where mines are being excavated. The mines to be studied will have a control site that is a shallow mine with a good roof, a deep mine with a good roof, a shallow mine with a poor roof, and a deep mine with a poor roof. Each mine will be equipped with rock mechanics

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instrumentation, use laser scanning for entry convergence and stress-feature mapping, house an underground microseismic system, and create an integrated web-based system to display measured data in real-time.

Westman noted the difficulty in obtaining a clear understanding of the redistribution of the stresses in rock mechanics when the ground is subjected to human activity such as mining. As the earth is moved by the excavation process, "stress redistribution can result in failure along new and/or previously-existing faults or joints," Westman said. "These relatively small failures produce seismic energy, and typically have a localized magnitude and can be recorded by a monitoring system, providing valuable information which is not currently being used."

Westman, Karfakis and Karmis will direct the training of graduate students from the department at the field sites. Much of the research will be conducted at underground mines operated by Alpha Natural Resources, one of America's leading producers of coal. The mines are within a three-hour radius of the Virginia Tech campus. According to department head, Dr. Greg Adel, Virginia Tech's mining engineering graduate program "has doubled in the past three years, and as a result of this grant, it is likely to grow even further."

Dr. Michael Karmis and VCCER Lead Study on the Injection of Carbon Dioxide into Storage Reservoirs

In a test project, researchers plan to inject some 20,000 tons of carbon dioxide (CO₂) into a coalbed methane field in southwest Virginia, at a site that is not suitable for underground mining purposes.

A cadre of government and private companies, led by the Virginia Center for Coal and Energy Research located at Virginia Tech, will be involved in the injection and subsequent monitoring. Some \$11,500,000 in funding for this four-year project is coming from the U.S. Department of Energy (DOE), and is part of a portfolio of projects aimed at achieving a better understanding of the effect of CO₂ on geologic formations.

"The proposed research will test the ability to inject CO₂ into coal seams that cannot be mined, as well as the potential to enhance the coalbed methane recovery," said Michael Karmis, director of the Virginia Center for Coal and Energy Research and Stonie Barker Professor of Virginia Tech's Mining and Minerals Engineering department.



Dr. Michael Karmis

The project is based on a number of previously successful studies that have identified promising methods for storing CO₂ in stacked underground reservoirs and the ability to sequester the CO₂—identified as a contributor to global warming—in the coal seams.

Research is ongoing as to which coal seams are good disposal sites and the conditions under which the impounded CO₂ would remain stable.

Previous studies have indicated geologic formations in Central Appalachia are promising for storage and carbon sequestration. Results from these studies are the basis for the proposed work by Karmis and his colleagues. "However, limited experience with injection into coal, tight sandstone, and organic-rich shales in Central Appalachia makes commercial potential uncertain at this time," Karmis said.

The grant to Karmis and his team is part of a larger effort recently announced by the DOE. On July 6, the federal agency released its intent to expand its efforts in insuring long-term geologic carbon dioxide storage is safe and environmentally secure with more than \$45 million being devoted to these efforts.

The other two new DOE projects will allow Blackhorse Energy, LLC of Houston, Texas and the University of Kansas Center for Research to perform similar studies.

In Virginia, Karmis will document the efforts and record the work into a best-practices manual for carbon dioxide capture and storage activities. The manual is intended to help reduce storage risk by documenting the uncertainties related to these activities. In addition, project data will be incorporated in the National Carbon Sequestration Database and Geographical Information System: an interactive online tool that integrates a wealth of information on worldwide efforts to deploy carbon capture and storage technology.

Carbon capture and storage is the process of capturing greenhouse gases from large stationary sources, such as power plants, and storing them in ways that prevent their release into the atmosphere; it is a key element in national efforts to mitigate climate change.

The Office of Fossil Energy's National Energy Technology Laboratory (NETL) will manage the work.

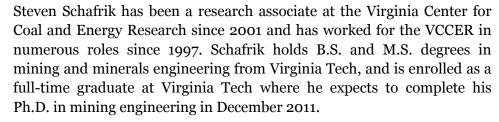
Working with Karmis and his center will be Marshall Miller & Associates; the Virginia Department of Mines, Minerals, and Energy; Southern States Energy Board; Gerald R. Hill, Ph.D., Inc.; Geological Survey of Alabama; Sandia Technologies; and Det Norske Veritas. This research team has experience in a number of geologic storage characterization studies and carbon sequestration injection pilot studies under the Regional Carbon Sequestration Partnerships established by NETL and the DOE.

Department Research Associates Bratton and Schafrik Named 2011-2012 Henry Krumb Lecturers by SME

Robert Bratton and Steven Schafrik, two research associates in Virginia Tech's mining and minerals engineering department, have been named 2011-2012 Henry Krumb Lecturers by the Society for Mining, Metallurgy, and Exploration. The Henry Krumb lecture series was established by the society in 1966 to provide local society sections with an opportunity to hear prominent minerals professionals speak on subjects of their recognized expertise.

Robert Bratton is a senior research associate in the department and is also an industrial programs manager for the Center for Advanced Separation Technologies. He has taught mineral processing and process automation labs, authored and co-authored technical publications, delivered technical presentations and conducted and co-conducted workshops in coal processing and plant automation.

Bratton's Krumb lecture presentation, *Application of Air Table Technologies for Cleaning Indian Coal*, discusses recent developments in the beneficiation of thermal coal in India, specifically the use of air table dry cleaning technologies. Dry deshaling offers significant advantages over wet cleaning operations, including reduced surface moisture, enhanced heating value, elimination of processing water and waste slurries, and reduced transportation of large amounts of ash-forming minerals. His presentation discusses results of recent testing in India which indicate that material with 80 percent ash and higher can be rejected by a deshaler unit with a combustible recovery of more than 90 percent.



Schafrik's Krumb lecture presentation, Wireless Mesh Communication Systems Optimization in Underground Coal, examines the development and introduction of tracking and communication systems installed in underground coal mines in the US and discusses VCCER's newly developed models of wireless signal propagation. The current mine propagation modeling software—COMMS—can locate potential broadcast points for underground wireless mesh systems and estimate their coverage. The program approximates spatial relationships encountered in underground coal mines such as ventilation regulators, belts and other obstructions, and allows for optimal communications node locations. The



Robert Bratton



Steven Schafrik

result is the ability to optimize a mine's communication network, which allows for the creation of a preinstallation mine network design map, the creation of coverage maps of the mine, and facilitates planning for future communication activities.

Henry Krumb, an 1897 graduate of the Columbia School of Mines, had an interest in engineering education and improving the status of the mining profession and established an endowment fund "for any purpose that is for the benefit of the Institute (AIME)."

Paul S. Barbery Inducted into Virginia Tech College of Engineering's Academy of Engineering Excellence

Paul S. Barbery, a 1959 graduate of Virginia Tech's mining and minerals engineering department, was recently inducted into the Virginia Tech College of Engineering Academy of Engineering Excellence, an elite group that now consists of only 105 people out of its more than 55,000 living alumni.

Founded in 1999, the Academy of Engineering Excellence honors graduates who have made continuous and admirable engineering or leadership contributions during their careers. "These alumni all represent people who have lived their lives representing the spirit of Ut Prosim, Virginia Tech's motto, meaning that I may serve," said Richard C. Benson, dean of the College of Engineering and the holder of the Paul and Dorothea Torgersen Chair of Engineering during a ceremony in May 2011.



Paul S. Barbery (left) is presented his induction award by Virginia Tech College of Engineering Dean Richard C. Benson.

Paul S. Barbery, of Bluefield, Va., and formerly of Mooresville, N.C., earned his bachelor's degree in mining and minerals engineering from Virginia Tech in 1959. He was in his sophomore year at Virginia Tech when his attention was diverted to mining engineering from civil engineering. With his father deceased, he had little money for his college education and needed funding. As a freshman, he worked as a co-operative student in the engineering department for Norfolk &Western Railway, until a new opportunity came along. "I explained my being a co-op student at Tech to a friend's father, who was in the mining business. He convinced me I should become a mining engineer because that would offer me a scholarship," Barbery said. "So, after receiving a scholarship award and a promise of a job in the mines during school vacation and holiday periods, I switched to become a mining engineer, which I'm glad I did." Barbery took his first steps into an underground mine in rural Leatherwood, KY, some 50 years ago. "I was very happy to go in," he said. "I wanted to learn, to see what it was all about."

Upon receiving his degree, Barbery started working with Jewel Ridge Coal Co. as an industrial engineer. Within a year he was laid off, but followed a colleague to a mining subsidiary of A.T. Massey in West Virginia. His hard-working nature resulted in his promotion to the head of the industrial engineering department.

While he was succeeding professionally, Barbery felt he needed to become "a more rounded person," and worked extra hours during his breaks to graduate from the University of Richmond's T.C. Williams School of Law in 1964. Soon after, the Roanoke law firm, Martin Hopkins & Lemon employed him, where Barbery worked alongside some of the brightest attorneys and was well-respected himself. According to John Rocovich, current member of the Virginia Tech Board of Visitors, Barbery "was extremely well-known in the coal industry, and his judgment was highly sought."

During the next couple of years, Barbery experienced life-changing events, both personal and professional. The loss of his wife to cancer in 1975 preceded his decision to move back to Roanoke, be with his family, and work for Virginia Iron Coal & Coke. A year later, Barbery assumed the roles of general counsel and vice president at A.T. Massey. His strong work ethic paid off again, as he was soon promoted to senior vice president, acting as primary administrator on corporate legal matters, including coal land acquisitions and leases. Barbery was employed with A.T. Massey for 18 successful years, serving as chairman of its Elk Run Coal, Co. subsidiary as well as an officer on several other subsidiaries.

From 1994 to present, Barbery continued to hold top positions within many well-known companies. He served as president of National King in Colorado, vice president and senior vice president and general counsel of Asian American Coal Co. LLC., in which he helped secure the first joint coal operation between a U.S.-based company and China. When American sold its affiliates in 2003, and Mr. Barbery retired, he returned to the law firm of Bowles Rice in Charleston, W.Va., and served as vice president and general counsel of the Cline Resources Co. of Beckley, W.Va.

Throughout his professional career, Barbery remained supportive of his alma matter, Virginia Tech. He has created a scholarship program for graduate students in the mining and minerals engineering department, rewarding those for their hard work, just as he had been awarded a scholarship many years before. "It's nice because it is for our graduate students at the start of their career. It helps people who may be struggling at the beginning of their education, when they need the help. It's more an award for potential," said Greg Adel, professor and department head of minerals and mining education. In 1990, Barbery was named a distinguished alumnus of the mining and minerals engineering department and served on the department's advisory board a decade later.

"Blast from the Past"

The Spring 2011 "Blast from the Past" was sent to us by Paul Atkinson (Class of 1980) and features members of the Class of 1980 seated on the steps in front of Holden Hall. Thanks to Steve Abbatello, Randy Albert, Rick Hudson, Jim Kelly, and Jerry Luttrell (all Class of 1980) for helping identify many of the individuals in the picture. As you can see, several members of this group are still listed as "unknown," and we would welcome additional help in identifying everyone in the picture.

For our latest "Blast from the Past" we go back to a picture taken from the pages of the



1-Matilda Roberts, 2-Budd Clapp, 3-?, 4-Rick Hudson, 5 &6-?, 7-Greg Halsey, 8-? (Rick McFall or Mike Coleman?), 9-Paul Atkinson, 10-Ross Kegan, 11-?, 12-Jim Kelly, 13-Ed Fanning, 14-15-16-?, 17-Gary Russell, 18-Helene Conroy, 19-Bonnie (Webb) Groppo, 20-Tim Arrington, 21-Patricia Wood, 22-?, 23-Randy Albert, 24-?, 25-Jeff Addison, 26-?, 27-Sid Stanley, 28-?, 29-Rick Filppo, 30-Mike Willis, 31-Steve Abbatello, 32-Pat Leedy

Bugle. In an attempt to cover all decades of alumni, we are featuring some of our more "experienced" graduates.



If any of you can help us identify this group, please send your responses to:

Dr. Greg Adel Department of Mining and Minerals Engineering Virginia Tech Blacksburg, Virginia 24061

or e-mail: adel@vt.edu

As always, if any of you have photos from your days in the Department (particularly group shots) that you would be willing to share for use in this article, we would be happy to scan them and return them to you. Any photos that are more than twenty years old would be greatly appreciated.