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# Black Diamonds

From the  
Department of Mining Engineering  
*COLLEGE OF ENGINEERING AND MINERAL RESOURCES*  
*WEST VIRGINIA UNIVERSITY*

**Volume 5, Issue 1**

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**June 2005**

## James Roberts, Poundstone Lecture, Spring 2005

### Coal Goes Public

On April 21st, James F. Roberts, President and CEO of Foundation Coal Holdings, Inc., headquartered in Linthicum Heights, Maryland, presented the Spring Poundstone Lecture entitled, "Coal Goes Public". Mr. Roberts is a native of Pennsylvania and graduated from Penn State with a degree in Business Administration. In his career, he has held various positions with increasingly more responsibility at several coal companies.

From 1999-2004, Mr. Roberts was President and CEO of RAG American Coal Holdings, Inc. (the predecessor to Foundation Coal). Prior to joining RAG, Mr. Roberts was president



**James Roberts, President and CEO of Foundation Coal, Inc.**

of CoalARBED International Trading from 1981 to 1999, chief financial officer of Leckie Smokeless Coal Company from 1977 to 1981 and vice president of Finance at Solar Fuel Company from 1974 to 1977.

Also, Mr. Roberts has been an active leader in the national mining industry. He is the vice chairman of the National Mining Association (NMA), a director of the Cen-

ter for Energy and Economic Development, and a member of the executive committee of the National Coal Council.

During Jim Roberts' tenure at Foundation Coal and its predecessor RAG American, the company's management team has been very proactive and forward-looking. In particular, the Mining Engineering Department (MinE) at West Virginia University (WVU) has received continuous and consistent research support through his company's sponsorship of numerous cooperative research projects which have led to many mining innovations and have

(See Roberts, Page 2)

## Department Strategic Plan for the Next 10 Years Finalized

The Department strategic plan was one of the major topics reviewed and finalized

in the Spring 2005 Visiting Committee Meeting on April 22. The Committee surveyed sev-

eral major coal companies and projected the demand for mining (See Visiting Committee, Page 6)

### MAJOR STORIES

- J. Roberts Presented Poundstone Lecture
- Visiting Committee Finalized Department Strategic Plan
- W. Poundstone elected to WV Coal Hall of Fame
- Watts Museum Dedication
- Alumni Feature Articles & News
- Several Notable Awards
- SMESC Activities and Field Trips
- SME Activities and Longwall USA
- MinE Recruiting Program



Attending the Meeting were (left to right): John Murphy (Chair), University of Pittsburgh, Jeff Wilson, James River Coal, Marshall Miller, Marshall Miller and Associates, Barry Dangerfield, PinnOak Resources, Syd Peng, WVU, Ben Statler, PinnOak Resources, Stan Suboleski, Federal Health & Safety Review Commission, Jim Laurita, MepCo Inc., Jeff Kelley, Alcon, and Scott Pack, Foundation Coal.

## William N. Poundstone Inducted to the 8th WV Coal Hall of Fame

William N. Poundstone (BSEM '49) was inducted to the 8th West Virginia Coal Hall of Fame at the Joint meeting of WV Coal Mining Institute, SME Central Appalachian Section, and WV Coal Association on May 6, 2005 in Charleston, WV.

Mr. Poundstone received his BS degree in Engineering of Mines from West Virginia University in 1949. He completed the Management Program for Executives at the University of (See Poundstone, Page 4)



William Poundstone received WV Coal Hall of Fame plaque from John "Jack" Katlic. (From left to right): John "Jack" Katlic, William Poundstone, Muff Bobo and Kathy Poundstone.



coal companies have become the darlings of Wall Street investors.

In regard to his personal experience with the Initial Public Offering (IPO) of Foundation Coal, Jim expounded upon the rigorous SEC requirements and the whirlwind roadshow to market the company through 4 countries, 18 cities and 50 meetings in 10 days. Also, he explained that the management and paperwork demands continue after the IPO with public reporting, disclosure and Sarbanes-Oxley compliance. At some point in the process, Mr. Roberts finally noticed that: "he is no longer in the business of selling coal, but rather he is in the business of selling stock". The presentation was extremely informative for the numerous students, faculty and friends at the lecture including, WVU president, David Hardesty, Jr., CEMR Dean Gene Cilento, WV Coal Association president, Bill Raney, former president of WVCMI, Gregory Patterson, and it was very well received. The auditorium was filled with record number of audience.

### (Roberts from Page 1)

helped create a successful graduate program in the Department. In 1987, with support from Foundation Coal, MinE worked with Cumberland Mine on longwall shield design and selection. MinE was the first to identify the superiority of 2-leg shields. Today, 2-leg shields are the standard in the international longwall mining industry. For this effort WVU was recognized by the Institute of Mining and Metallurgy for the Overseas Award in 1992. Also, beginning in 1985, the WVU MinE worked with Cumberland and Emerald Mines to analyze and predict surface subsidence due to longwall mining. Since that time, the subsidence group at WVU has been the premier research and engineering location in the field of subsidence, and presently has the only active subsidence research group in the nation. The subsidence prediction model and mitigation techniques developed as a result of this cooperation have become industry standards and are routinely used by both regulators and coal companies.

Mr. Roberts's lecture subject, about taking a coal company public, is very timely with many U.S. coal companies go-



James Roberts Accepting Poundstone Lecture Series Crystal Plaque from MinE Department Chair, Dr. Syd Peng.

ing public in recent years. In his presentation, Jim showed how the stage was set for public ownership with investment of coal ownership by oil, gas and steel companies in the late 80s and then consolidation of the large "pure-play" coal companies in the 90s. Most recently, with strengthening energy prices, and strong growth and demand expectations,



Management team of Foundation Coal, Inc. attending the Lecture (from Left to right, front): Scott Pack, James Roberts, Heather Daugherty, Jinsheng Chen, Klaus Dieter Beck, Doug Conklin, Ed Zeglen, Mike Mishra, Denny Hinkle, Bill Schloemer. (Back): Michael Peelish, Jim Bryja, John Dzurino, Rod Lawrence, Robbie Robinson, Mark Schuerger, Kurt Kost, George Allekotte, Dale Birchfield, Mike Ross, Jeff Kukura.



## Royce and Caroline Watts Museum Dedication

by Melissa Soave, Assistant Director, Development, CEMR, WVU.

West Virginia University's (WVU) COMER Museum, housed in the College of Engineering and Mineral Resources (CEMR) has been renamed for two individuals who have tirelessly supported its mission. The Royce J. Watts and Caroline Watts Museum was dedicated on April 21, 2005. Mr. Watts is the Associate Dean of Administration for CEMR, and he, along with his wife Caroline, has given both financial support and other resources on behalf of the museum for more than two decades.

Since 1930, the museum has served to preserve and promote the social, cultural and technological history of the coal, oil and gas industries of the State of West Virginia through the collection, preservation, research, and exhibition



(From left to right): Royce Watts, David Hardesty, Jr., J. R. Watts, Bill Raney, Dean Gene Cilento, Caroline Watts (front) Gregory Patterson, and Bill Wolf at Royce and Caroline Watts Museum Dedication.

of tangible objects relevant to the industries. Although the construction of the museum was approved in 1986, artifacts were being collected prior to the establishments of the School of

Mines in 1930. Through the years a few items have been purchased, but the vast majorities were donated by alumni, mining and petroleum companies and friends of the

mining and petroleum industries. The current collection continues to grow.

Recently endowed by gifts from the West Virginia Coal Mining Institute (WVCMI), the Watts family, and alumni and friends of WVU Mineral Resources, the new name came at the request of the WVCMI to recognize the Watts' unwavering support. At the dedication ceremony, 100 former colleagues, friends, and family members attended a dedication ceremony held at Mineral Resources Building, Evansdale Campus. WVU President David C. Hardesty Jr.; Dean Eugene Cilento; Immediate Past President of the WVCMI Gregory E. Patterson; and William B. Raney, president of the West Virginia Coal Association all gave remarks.

## Syd Peng Received The Old Timers Club Faculty Award

Dr. Syd S. Peng received the 2004-2005 Old Timers Club Faculty Award at the King Coal Club/the Old Timer Club Joint Annual Meeting, the Greenbrier, WV on June 17, 2005. This award has been established to annually recognize an outstanding faculty member who has been an inspiration to students and has devoted his career to the development of mining engineers.



A fly fishing lesson from the Pro (from left to right): Doug Hardman, George Desko (caught a trout!), and Syd Peng at the Greenbrier on June 18, 2005.



Dr. Syd Peng Received the Old Timers Club Award from Dr. Stan Suboleski (Source: Courtesy of Bill Reid, Coal News).

### THE OLD TIMERS CLUB

The Old Timers Club is a small group of coal-industry executives whose main purpose is to recognize outstanding students

and faculty in mining engineering schools across the country. It was founded in 1938 when a few industry leaders met to improve the techniques of mining coal. In 1948, it began its tradition of awarding an old timer watch to the outstanding senior

at each of those schools from which the coal industry draws its engineers. To date, the Old Timers Club has presented an award to 590 outstanding mining engineering students in 20 universities, including 50 at WVU. In 1995, the club also began presenting an annual faculty award, to recognize an outstanding faculty member who has been an inspiration to students and has devoted his career to the development of mining engineers.



Attending the 2005 Emeritus Club Luncheon was (from left to right, back row): Edmund Bookman Jr. (BSEM '52), James Bloom (BSEM, '51), Dr. Jay H. Kelley, Dean, COMER 1970-1979; (front row): Nick Oliver (BSEE '49), Richard Lee (BSEM '47), Malcolm Magnuson (BSEM '50) at CEMR Emeritus Luncheon at The Pine Country Club, Morgantown, WV on April 29, 2005.

## THE WEST VIRGINIA COAL MINING INSTITUTE (WVCMi)

The West Virginia Coal Mining Institute was established in early 1908 as a professional organization to enhance the social and professional growth of those persons engaged in the mining industry. The original Constitution defined "persons engaged in the mining industry" as "any citizen of the United States who is either a Coal Operator, Manager, Superintendent or Engineer, or any other person practically connected with mining." The Constitution of 1908 estab-

lished the mission of the Institute when it stated that:

"Recognizing the advantages to be derived from organization and in order to advance the coal industry within the State of West Virginia, to encourage education in practical and scientific mining, to promote study and research into mining problems, and to benefit our mutual interests, this institute is organized."

The social, cultural and technological history of coal mining has undergone unbeliev-

able changes since this statement was made in 1908. However, the original objectives of the founders of the Institute are still valid today, 97 years after the first meeting of the West Virginia Coal Mining Institute. In this regard, the Institute holds two technical/social meetings each year for its members and those "connected with mining". Over the past 97 years, uncounted thousands have received professional education through the efforts of the Institute and the West Virginia Coal Mining Institute remains a major provider of professional education for the mining industry in West Virginia and the region.

### (Poundstone from Page 2)

Pittsburgh in 1960. His illustrious career spanned over 35 years of professional engineering, managerial and executive experience in the coal mining and related mining industries. His knowledge of the industry is evidenced by many contributions to the mining industry, particularly in the field of continuous mining machines, coal transportation devices and degasification of coal seams.

Mr. Poundstone began his mining career at the Arkwright Mine of the Christopher Coal Co. in 1948 as a timber man. Following graduation from WVU, he worked for Christopher Coal Co. as a Production Engineer, Section Foreman, Belt Foreman and Preparation Engineer from 1947 to 1955. In 1955 he was named Superintendent responsible for opening the Humphrey Mine. From 1960 to 1961, he served as the General Superintendent of the Arkwright, Osage and Booth Mines. Bill served as the Assistant to the Vice President of Operations for Consolidation Coal Co. 1961-1965.

In 1965 Bill was promoted to the position of Executive Vice President and was placed in charge of all of CONSOL's oper-

ating properties. In 1972 he served as a Director of CONSOL as well as a Director of CONOCO Coal Development Co., Consolidation Coal Co. of Canada, and Fairmont Supply Company. He also served as President of the Harmar Coal Company. He retired in 1982.

Mr. Poundstone's professional accomplishments are exemplary. He was instrumental in the development and application of the modern day borer miner. He patented and had built a sensor controlled long hole drill that could be used to drain methane ahead of mining. Bill also built the first bulk rock duster. He also led a large research project to design and built the first underground coarse coal slurry pipeline. This design was to provide continuous transportation of run-of-mine coal from the mining machine to the coal preparation plant. He is the holder of 34 U.S. Patents. He has authored a number of technical publications. Mr. Poundstone's professional achievements have led to numerous honors, including membership in the National Academy of Engineering (1977), AIME Percy Nicholls Award (1979), AIME Distinguished Member (1979), and receiving AIME Erskin Ramsey Medal (1980), Honorary Doctor of Science Degree from West Virginia University (1981) and the College of Mineral and Energy Resources Outstanding Alumni Award (1991), the Engineering Society of Western Pennsylvania, William Metcalf

### Congratulations Muff Bobo and Bill Poundstone



On February 19, 2005, Muff Bobo and Bill Poundstone were united in marriage at the First Presbyterian Church of Tequesta, FL. Please join us in congratulating Muff and Bill on their marriage, and join us in wishing them a very happy life together.

guished Member (1979), and receiving AIME Erskin Ramsey Medal (1980), Honorary Doctor of Science Degree from West Virginia University (1981) and the College of Mineral and Energy Resources Outstanding Alumni Award (1991), the Engineering Society of Western Pennsylvania, William Metcalf

## Alumni NEWS

- **Eric Anderson** (BSMinE '96) is general manager, Warrior Coal. He resides in Madisonville, KY.
- **Richard Begley** (PhDMinE '90) was recently featured in a news article. As co-investigator he developed and received a patent for a new kind of long life light bulb.
- **Thomas Barczak** (MSMinE '05) is Mining Engineer at National Institute of Safety and Health (NIOSH), Pittsburgh Research Laboratory, Pittsburgh, PA.
- **Jinshen Chen** (PhDMinE '97) resigned recently from Foundation Coal and joined Asian America Coal as Vice President Business Development in Beijing, China. He is responsible for development of new mine projects.
- **Raymond G. DuBois** (BSEM '79), President and General manager of Traper Mining, Inc. was recently elected Chairman of Colorado Mining Association.
- **John A. Goroncy** (BSEM '75) is Manager-Engineering, Eighty-Four Mine, CONSOL Energy, Eighty-Four, PA.
- **Yonglian Sun** (PhDMinE '91) is Managing Director, SRK Consulting China, Beijing, China. Dr. Sun was the first graduate whose PhD program was jointly sponsored and administered by the Department of Mining Engineering, WVU and China University of Mining Technology, China.

(See Alumni News, Page 5)

Award (1984).

Mr. Poundstone has three children. Kathy, Scott and William, Jr. Bill and his wife, Muff Bobo, live in Palm Beach Gardens, Florida and Pittsburgh, PA.

CONSOL established in 1983 (See Poundstone, Page 6)



## 2005 Mineral Resources Student Recognition Banquet

**M**ineral Resources Students Recognition Award Banquet was held at Lakeview Resort and Conference Center on April 10, 2005. Several mining and mineral industry, MRAC and CEMR

representatives came to present the awards to the students and faculty in Mining Engineering and Petroleum & Natural Gas Engineering, and Mineral Resources alumni.



Dr. Keith Heasley received SMESC Award from Kevin Rakes.

Joe Zirkle received the Old Timers Award



(and Faculty award) from Ronald Stovash.



Jackie Toombs received Career in Coal Award from James Simpson.



Kevin Rakes received MRAC Award from Bill Wolf.



James Dean received SMESC Officers Award from Kevin Rakes.



Ben Worley received Joy Machinery Scholarship from Kirby Owen.



Samantha Stahle received MinE Faculty Award from Dan Alexander.



Lucas O'Neal received WVCM Award from Gregory Patterson.



Jisheng Han received MinE Faculty Award from Dan Alexander.



Rebecca Hardy received MinE Faculty Award from Dan Alexander.

### (Alumni News from Page 4)

- **Jackie Toombs** (BSMinE '05) is Mining Engineer at Rivers Edge Mine, 50 miles southwest of Charleston, WV, Eastern Associated Coal, Peabody Energy.
- **David Trader** (BSEM '81) moved to Bluestone Coal as underground engineer in Key stone, WV. Bluestone produces more than 1 million tons of coal annually employing the room and pillar mining method.
- **Jeffrey Wilson** (BSEM '81) is Vice-President Business Development, James River Coal Co. in Richmond, VA. He recently re-joined the MinE Department Visiting Committee.
- **Bob Yunkai Xia** (PhDMinE '05) is process engineer with Sedgman, Inc. at Pittsburgh, PA.

- **Bo Yu** (PhDMinE '05) is Mining Engineer with Agapito Associate, Inc. at Grand Junction, CO. (See Alumni News, Page 12)

### Making A Gift to the Department

Thinking of making a gift to benefit our Department in your will, living trust, IRA, or other manner? If so, the proper wording is very important to ensure that your gift works out the way you intended.

Have your attorney include a provision directed "to the West Virginia University Foundation, Inc. (i.d. #55-6017181) to benefit the Department of Mining Engineering in the College of Engineering and Mineral Resources." Your gift provision can provide for the creation of an opportunity fund, a faculty development fund, a [scholarship](#) — whatever you choose. It will help us in an important way to further our educational, research and service mission.

If you would like further assistance with your gift plans, call Bob Bragg, CEMR at (304) 293-4821 Ext 2240, or Syd Peng, Department Chair at (304) 293-7680 Ext 3301.

## 2004-2005 SME Student Chapter Competition, WVU Received 3rd Runner-up



SME Student Chapter Officers of 2004-2005 were: (from left to right) Samantha Stahle (Secretary), Eric Lilly (program), Kevin Rakes (President), Jackie Toombs (GEM Coordinator), Lucas O'Neal (Vice-President), and Brandon Williamson (Treasurer) (not in photo).



**Bill Maloney** received Citizen Award from Morgantown City Commissioners, Fall 2004. Bill is also Industrial Advisor to SMESC.

### SME Student Chapter Officers Elected for 2005-2006

**President—Lucas O'Neal**  
**Vice-President—Michael Mullins**  
**Secretary—Bryan Schwalm**  
**Treasurer—Brandon Williamson**  
**Program—Jonathan Gordon**  
**GEM Coordinator—Morgan Sears**

## LOOKING BACK TO THE SCHOOL OF MINES

by Fred R. Toothman  
BSEM '41

I arrived at Entry B of the Boys Dorm at WVU in the fall of 1936. The Great Depression was still prevalent and I had obtained a job waiting tables in the girl's dorm and had worked surveying in the mines with my father to pay tuition. Coming from a small high school, I was poorly prepared to make passing grades while some other students were merely repeating courses from prep school or top rated high schools.

The School of Mines located in the old Engine building next to the drill field was headed by Dr. C.E. Lawall, a fine Christian gentleman and excellent teacher. The only other mining teacher was Professor William Staub whom the students called "Willie the Rat" because of his tough teaching methods and refusal to answer



Fred Toothman

questions. I later learned to appreciate the fact that his admonition, "Ain't that hell" forced us to become self reliant in learning. His standard salutation was, "What's on your mind besides hair".

Mineral and Energy Resources (COMER) at West Virginia University 1981-1984. Highlights of his career include two terms in the West Virginia House of Delegates, and awards for annual achievement, and lifetime achievement in coal research from the Washington Coal Club. Fumich was cited with three medals for service above and beyond the call of duty in World War II.

### Harold Evans Crickmer

Harold Evans Crickmer, age 80 of Tazewell, VA died Thursday, July 22, 2004 at Bristol Regional Medical Center, Bristol, TN. Born June 20, 1924 in Mcalpin, WV. He attended Concord College and graduated from West Virginia University with a Bachelor Degree in Engineering of Mines. He had worked as a Mining Engineer and had retired as a Vice-President from Pittston Coal Group.

Mining students take classes in general engineering subjects along side student's in the other departments. "Cueball" White was a thorough and good drawing teacher. "Step and a Half" Nelson had an old injury and taught surveying. He left us alone during quizzes but admonished tobacco chewers to spit out the window. Carl Cather was called "Big" and his brother "Little" Cather. Big Cather's favorite expression was "take moments around women's hall."

By the second year I was on a roll and able to keep up with all of my peers, I was promoted to headwaiter at the girl's dorm. I also received tuition for playing the clarinet in the ROTC band. The junior year was special by my election to Tau Beta Pi, the top engineering scholarship honor. Dr. Lawall was elevated to President and Dennis McElroy became Director of the School. My summers were spent on temporary underground jobs at different coal mines.

After graduation in 1941, I was given a scholarship to write a thesis on the use of conveyors in coal mines. This study was



interrupted by becoming an officer in the Navy and service in the South Pacific. I received a Letter of Commendation for being a part of a marine reconnaissance mission and invasion of New Georgia Islands in 1943.

I graduated in the top three of sixty man class of junior officers at the PG School in Annapolis for weather forecasters, which seemed to vindicate the quality of my degree from WVU.

Upon my return to WVU, I completed the Masters degree and took a job in the Coal Development Office of the C & O Railway in Huntington. I advanced to head of the office in 1960 and retired as Assistant Vice President in 1980. During a 10 yr. term on the WVU Advisory Board, my letter campaign to President Harlow saved the autonomy of the School of Mines. Five books have been written and published as a hobby in retirement.

## OBITUARIES

### George Fumich, Jr., Former COMER Dean



GEORGE FUMICH, JR.  
DECEMBER 6, 1917-APRIL 6, 2005

We are saddened to report to you that our former COMER Dean George Fumich, Jr., died of a heart attack on April 6, 2005, at his residence in Arlington, VA. He was 87 years old.

Dean Fumich was the first Assistant Secretary for Fossil Energy and was appointed by President Jimmy Carter. Prior to his appointment, Fumich served as the Director of the Office of Coal Research and Acting Assistant Secretary for Fossil Energy. He was Dean of the College of

### (Visiting Committee from Page 1)

engineers and topical training need for the next 10 years. In response to those needs the strategic plan covers student enrollment and recruiting, and the resources required including faculty and their areas of expertise, supporting staff, as well as funding.

The other subject reviewed was student recruiting plan. After having listened to Bill Ryan's (the Department special recruiter) report on the 2004-2005 recruiting update and plan for the 2005-2006 recruiting year, the Committee gave its blessing to continue the recruit-

ing program. Foundation Coal and the other companies represented on the Committee also volunteered to help with high school contacts at locations where they operate.

Finally the Committee interviewed MinE students seeking feedback regarding MinE curriculum over lunch.

### (Poundstone from Page 4)

the William N. Poundstone Lectureship endowment in his honor. With this fund Mining Engineering Department launched the Poundstone Lecture Series in 2000 honoring industry leaders and distinguished alumni.



## Mining Engineering: My Last Stop

by Jackie Toombs  
BSMinE '05

When I first arrived at West Virginia University I was undecided which direction I wanted to go. I knew that I wanted to be an engineer but I did not know which kind. I started off in Aerospace and Mechanical Engineering dual degree program. I soon found out planes, robotics, etc. was not my thing. The next discipline I tried was Civil Engineering. This was something I was more interested in. I liked designing buildings, and other structures. However, it was like many other engineering majors, almost routine. I needed something that would force me to think on my feet, and challenge me everyday. I knew that if I was going to last 30 years in a career I needed to have a career where I never knew what to expect from day to day.

One day while I was walking down the hallway in the Engineering Science Building when a display caught my eye, "**\$2,000 Scholarship Guaranteed.**" It was the Mining Engineering display case. My grandfather had worked in the mines, and I was inter-



Jackie Toombs

ested in his stories, but I never gave it much thought as a career. I read about some of the different aspects of mining as well as where some of the graduates were working and doing. I was intrigued and wanted to know more. I made my way to see the Department Chair of Mining Engineering. Dr. Peng talked with me about how the environment changes frequently in a mine and how as an engineer you have to be able to adapt to these changes. After talking with Dr. Peng I knew that Mining Engineering was for me. After all, not knowing what to expect when I walked into work was what I was looking for.

Having to think on my feet was what I needed.

My first mining class was Surface Mining. All of the students in the class had mining classes before, but I did not know what to think. **I felt like I was lost and everyone knew 1000 times more than I did.** I soon learned that did not matter. I worked hard and asked a lot of questions. The professors would help me anytime I came to them with a question and I made it through the class with an A.

There is so much more to learn, such as, Underground Methods, Safety, Management, Coal Preparation, Economics and more. Then when you have finished what you have learned, you piece them together into your Senior Design Project. That is when I realized how much I had really learned. The Department does a great job in helping us to learn outside of the classroom. I have many trips to various mines, including this country's only operating

longwall plow mine, as well as mines in UT and CO. I have learned that every mine is different and people do things differently.

I have seen the different mines and talked with various people within the industry, as well as worked summer jobs in the mines. I have also learned valuable information from industry leaders. All of which have enhanced my knowledge of such a vast profession. In this profession you have to keep up with new technologies and methods. I feel that my time here at WVU has prepared me for a career in this challenging field. I am extremely satisfied with the education and experience that I have received from the University, and especially the Mining Engineering Department. Finally, I would like to thank all of the faculty and staff of the Mining Department. You all have made my college experience wonderful and helped me in so many ways. I consider you all to be my friends, so thank you again.

### Field Trip to a Drift Mine, Selah #1 Mine, Campbell Creek, WV

Before Kanawah Valley Coal Association and Charleston Coal Mining Institute Joint Annual Meeting, a group of WVU MinE



(From left to right, front row): Jonathan Gordon, Jackie Toombs, Dr. Keith Heasley, Nancy Dorset, Lucas O'Neal, Dr. Wahab Khair; (back row): Kevin Brocket, Cade Mason, Daniel Ryan, Kevin Rakes, Byan Schwalm, Samantha Stahle, Brandon Williamson, Michael Moton, Ben Worley.

students and professors (see photo left) visited the Selah #1 mine along Campbell Creek in Kanawha County, WV on April 7, 2005. This is a drift mine producing from the Stockton seam using two continuous miner sections for room-and-pillar development and pillar extraction with mobile roof supports. Danny Robinette, the superintendent and father of a former WVU football star, explained the mining operations to the Group. Then, the group traveled underground to the working sections where they were able to witness the coal cutting, loading, roof bolting, etc. Department certainly appreciates Selah #1 Mine for graciously opening their mine to (See Selah #1 Mine, Page 12)

### Calendar of Events Spring, 2005

**Feb 28-Mar 2** SME Annual Meeting and Exhibits, Salt Lake City, UT with MRAC Reception.

**April 10** Mineral Resources Award Banquet, Lakeview Resort & Conference Center, Morgantown, WV.

**April 21** William Poundstone Lecture, and COMER Museum dedication, Mineral Resources Building, Morgantown, WV.

**April 22** MinE Dept Visiting Committee 2005 Spring Meeting, Morgantown, WV.

**May 5-7** WVCMI and WVCA Joint Meeting, Marriott Hotel, Charleston, WV.

**May 15** WVU Commencement, Morgantown, WV.

## David Carris, Guest Speaker for SME Student Chapter Seminar

As part of SME Student Chapter's activities, guest speakers are invited to present their experiences in their profession and specialized fields. We were very pleased to have Mr. David M. Carris present "Matching Plant Design to Seam Characteristics" on April 14, 2005. He has 40 years of Coal Preparation Design experiences. Mr. Carris is Executive Associate with J. T. Boyd Co., Mining and Geological Consulting Co.



Some students attending the Seminars were (left to right): Eric Lilly, Ryan Critchfield, Morgan Sears, Takashi Sasaoka, Jonathan Gordon.



(Left to right): Dr. Keith Heasley, Jinsheng Han, Jun Lu, and Zhengxing Gu.



David M. Carris

## Trip to DBT America's Manufacturing Facilities in Houston, PA.

On February 10th, 2005, 14 students from Longwall Mining class went on a field trip to DBT America's manufacturing facilities in Houston, PA. DBT is a worldwide supplier of longwall and continuous mining equipment and employs approximately 300 people at the Houston facilities.

Initially, Craig Rumbaugh, the plant manager, escorted the group through the manufacturing sub-assembly bays. The highlight of the tour was a nearly completed 145 ft long

stage loader for the new Emerald Mine longwall face. After the tour of the plant floor, Al Hefferan, the VP of manufacturing, explained the current capabilities of DBT equipment and the future design directions for longwall equipment. Also, Mr. Hefferan supplied the group with several spreadsheets for helping designing AFCs and longwall shields. The trip was very educational for the students and DBT America's hospitality is greatly appreciated.



(From left to right) Dr. Keith Heasley, Dr. Wahab Khair, Bryan Schwalm, Lucas O'Neal, Brandon Williamson, Joe Zirkle, Cade Mason, Ben Worley, Michael Moton, Kevin Rakes, Craig Rumbaugh, Plant Manager.

## Foundation Coal, Inc., Cumberland Mine Coal Preparation Plant Visited

MinE Students in Coal Preparation Class and graduate students visited Foundation Coal Inc., Cumberland Mine Coal Preparation Plant in Kirby, PA on May 1, 2005. The Plant has 1,800 TPH capacity, using dense-medium vessel, dense-medium cyclones, spiral concentrators, and froth flotation cells. The purposes of the visit was to acquaint MinE students with coal cleaning circuit layout in the Plant. Paul Brady, Mining Engineer, explained the functions of major unit operation



(Form left to right): Ben Worley, Lucas O'Neal, Jonathan Gordon, Paul Brady, Zhenxing Gu, Hongyan Sun, Poalo Bozzaato, and Samantha Stahle, while Paul Brady was explaining the coal cleaning circuits in the Plant.

used in each circuit. The Department appreciates Paul Brady, and Charles Barnheart, Plant and Surface Facilities Manager for hosting the visit.



(From left to right): Zhengxing Gu, Hongyan Sun, Ben Worley, Brandon Williamson, Samantha Stahle, Eric Lilly, Jonathan Gordon (in front of Eric), Bryan Schwalm, Paul Brady, Poalo Bozzato, Jason Pennybaker, Lucas O'Neal.



## Studying Mining Engineering Was Time Well Spent

by Christian Warfield  
BSMinE '05

I first came into the Mining Engineering Department not having any background experience concerning coal mining or any other kind of mining. I started studying Industrial Engineering until I realized the great rewards the Mining Engineering Department offered. My roommate at the time, Brad Zimmerman (BSMinE '03), was a senior in Mining Engineering, when he explained to me how I could get in-state tuition (because I am a Maryland Resident), and a \$2,000 scholarship just for joining. Once I heard this, it wasn't long before I too became a Mining Engineering student.

My first two years in the Department, I have to admit, was clueless on what mining was. Most of the students have or had family members in the mining industry and at least understood a little bit of what was going on. I decided to stick with it and I am very glad that I did. I began understanding and learning more each day because mining is interesting and the field trips were great. I was

able to see many underground and surface mines in the West Virginia area and even mines in Pennsylvania and Utah. The SME trips to Cincinnati, Las Vegas, Salt Lake City and even the Greenbrier, White Sulphur Spring in southern West Virginia were fascinating social events where I could meet mining students from other schools and professionals in the field of mining. The greatest experience has to be my first mining job. I worked for Consol Energy during my junior and senior summers as an underground mining Co-op. The Mining Engineering Department found me this job with no problem; all I had to do was take a 5 minute interview. I received hands on experience with what goes on as an underground worker and got paid almost 3 times as much as a regular minimum wage job. I loved every minute of my summer earnings which helped my mother and myself with my schooling.

I am proud to be graduating with a B.S. degree in Mining



Christian Warfield at the Utah site of his senior design project.

Engineering because faculty in the Department are wonderful, intelligent and enthusiastic people

who were willing to help me with any problems I might have. The classrooms were small which provided an easier learning environment for me. I learned a great deal from being around my professors and my fellow students who will always be my life long friends. After 5 long, strenuous years of staying up late studying for exams, I am now ready to experience the work force in the real world. I am taking a full time job with Consol Energy where I will use the knowledge that I have received from my education from the Department of Mining Engineering, West Virginia University.

## Senior Design Project Chose to Study SUFCO Mine, Salina, Utah

A couple of seniors, Cade Mason and Christian Warfield, in the Mining Engineering Department chose a Utah coal property for their senior design project. They had very little personal experience with western mining idiosyncrasies. They arranged to visit the SUFCO Coal Mine, UT (which is adjacent to their chosen property). SUFCO Coal Mine is wholly owned by Arch Coal and located 200 km south of Salt Lake City. Therefore, on March 2nd, Cade and Christian, accompanied by Dr. Keith Heasley and graduate student Quanxi Wang, visited with the engineers and geologists at the SUFCO Mine Office. Cade and

Christian grilled Mark Bunnell (the geologist who arranged the meeting), Kendal Hale (the mine manager), Jeff Jorgenson (the mine electrical engineer) and others about the operating conditions and practices at the SUFCO Mine. The topics of: geology, ground control, longwall equipment, continuous mining equipment, belts, power, water, permitting, personnel, work schedule, coal transportation, etc. were all thoroughly discussed. In this one visit, the seniors were able to acquire a wealth of information for use in their senior design project, and are deeply indebted to the hospitality and knowledge shared by the SUFCO personnel.

## Investigation of Multiple-seam Mining Effect, Coalburg Mine, Kanawha Eagle Coal Co., Comfort, WV, February, 2005



(Left to right:) Jishen Han, Graduate Assistant, Dr. Yunqing Zhang, Odell Hensely, General Manager, Dr. Syd Peng, Bob Ellis (BSEM, '88), VP-Operations, Julio Asebes, Mine Superintendent.



Coal & Energy Division Meeting, 2005 SME Annual Meeting, Salt Lake City, UT

## WVU 136th Commencement May 15, 2005



Attending the 2005 Commencement were (from left to right): Yunkai Xia (PhDMinE), Bo Yu (PhDMinE), Dr. Syd Peng, Thomas Barczak (MSMinE), Dr. Wahab Khair, Christian Warfield (BSMinE), Jackie Toombs (BSMinE), Dr. Felicia Peng.

WVU's 136th Commencement was on Sunday, May 15, 2005 at the Coliseum. The Commencement address was given by Joe Manchin III, Governor, State of West Virginia.

Mining Engineering Programs graduated seven BSMInE, two MSMinE and two PhDMinE. Yunkai Xia and Bo Yu received PhDMinE, Olayemi Olumide Akinkugbe and Thomas M. Barczak received MSMinE, and Gregory G. Boyce, Justin David Bushneck, Matthew R. Jordan, Cade A. Mason, Jackie L. Toombs, III, Christian K. Warfield and Joseh R. Zirkle received BSMInE.



## SME Field Trip to American Gilsonite LLC, Bonanza, UT

American Gilsonite is the only gilsonite mine in the world. WVU MinE graduate students and professor visited the Mine on March 5, 2005. Earl White, Vice-president of Operation, graciously explained to the group about the characteristics of gilsonite and

mining methods. Gilsonite is a hydrocarbon and looks exactly like coal. It is used for black newspaper ink, making die moulds, sealant in drilling fluids, and asphalt. Gilsonite veins are vertical dikes, 2-8 ft wide and extend down to 1,100 ft



(From left to right): Zhengxing Gu, Dr. Takashi Sasaoka, Dr. Yungqing Zhang, Earl White, Quanxi Wang, Dr. Syd Peng, Murali Gadde, Dr. Yi Luo, and Felicia Peng (not in photo), around the mine car filled with Gilsonite at Bonanza, UT.



Dr. Syd Peng was invited to present a lecture on his life-long career on mining education and research at and received Visiting Professorship from Henan Polytechnic University (HPU), Jiaozuo City, Henan, China in May 2005. HPU is one of the premier coal mining institutes in China dating back to 1909. The photo above shows that Dr. Peng received the certificate of visiting professor in a special ceremony from Dr. Zou Youfeng, president of HPU. The banner at the background reads: **Ceremony for Presenting the Certificate of Visiting Professor to Dr. Syd S. Peng**

deep where it is in direct contact with Green River shale formation.

There are five mines. Each mine has 3 employees, one hoist operator and two miners. Annual production is 60,000 tons. Sale price of Gilsonite is on average \$280/ton. Gilsonite is very explosive. It's classified as a very gassy mine. This is why there is no elec-

tricity underground. Gilsonite is mined by a pneumatic pick and the broken gilsonites ore is pneumatically sucked up (vacuum) by a 12-in pipe all the way to the bins on the surface. The Department would like to express our thanks to American Gilsonite for their hospitality.





## Mine and Mill, Vernal, UT Visited

A group of WVU MinE students and professor visited Simplot Phosphates mining/milling operations on March 4, 2005. Cassidy McCallister, Chief Engineer, and Eric Schillie, General Manager fully

phosphate rock is extracted, the ore is hauled to the primary cone crusher, and then to the Mill via overland conveyor belt.

Immediately following mine tour, Rollins Roberts, Metallurgical Engineer and Leroy

**Simplot Phosphate Surface Mining**



Worthen, Mill/Pipeline Superintendent led the group to tour the grinding and flotation plant. SAG mill and ball mill are used for phosphate liberation. The prepared slurry is then pumped to rougher and cleaner phos-

phosphate explained the geology and surface mining procedures of the phosphate rock mine before setting out to observe drilling, surface mining and reclamation. The current ore reserve is divided into three zones, with a stripping ratio of 1.63 by volume. The projected mine life is 24 years. The mine produces 4.2 million tons of phosphate ore and 2.1 million tons of concentrate annually. The ore contains on average 19% of  $P_2O_5$  and is about 18 ft thick. After

phosphate flotation, ball milling, scavenger phosphate flotation, and then carbonate flotation to produce phosphate concentrate. The froth flotation is designed to remove silica, carbonates and other mineral oxides. The concentrate contains  $P_2O_5$



(From left to right): Rollin Roberts, Dr. Wahab Khair, and Lucas O'Neal.



(From left to right): Dr. Yunqing Zhang, Zhengxing Gu, and Leroy Worthen.



**SAG mill in Simplot Phosphate Plant .**

## SME Field Trip to Deserado Mine, Rangely, CO.

A group of students and professors from MinE, WVU made a field trip to Deserado Mine on March 3, 2005. Deserado Mine is a captive mine in Rangely, CO, that supplies coal to the 440 MW Bananza Power Plant. The plant requires only 2.1 million tons annually and thus this is what the mine produces. Coals are transported from coal preparation plant via a 3.5-mile long overland conveyor to the rail loadout facilities.

The Company is mining sub-bituminous B Seam coal, 8 ft thick. Currently the delivered product is 10% ash and 9,600 Btu/lb.

Al Hibbard, Mine Manager, Bill Lepro (BSEM '83), Sr. Mining Engineer, Jeff Dubbert, Chief Engineer, and Tallerico, Safety Director, hosted

and led the group to tour the underground mine. Bill Lepro also conducted the surface Coal Preparation plant tour for the group. The Coal Preparation plant is operated by 3 persons only. It's a jig plant. The Plant feed belt is equipped with an Ash Scan Analyzer. If the ash is less than 10%, the raw coal by-passes the Plant without washing. The Department appreciates Deserado Mine's hospitality.



(From left to right): Bill Lepro, Dr. Syd Peng, Dr. Yunqing Zhang, Quanxi Wang, Murali Gadde, and Dr. Wahab Khair.



(From left to right): Dan Alexander, Brandon Williamson, Jackie Toombs, and a mining engineer of Deserado Mine.

30.80%, MgO less than 0.8%,  $Fe_2O_3$  less than 0.4%, and remaining being silica. The phosphate concentrate is transported to Rock Spring, WY fertilizer plant by the 96 mile long slurry pipeline from Vernal, UT. The pipeline is a

10-in nominal size pipe and carries 325 tons of concentrates with 58% solid, 18 hours per day. The Department appreciates Simplot Phosphates' hosting the mine and mill tours.



## Syd S. Peng Established Ground Control in Mining Award

Ground control is the most important element in mine design. While there have been significant advances in the past few decades, there are still many problems yet to be resolved. The gap between theory and practice is still wide open. In 1981, Dr. Syd Peng founded the conference series on Ground Control in Mining to promote the field and to narrow this gap. He has also devoted his whole career toward this objective, using coal mines in the United States and throughout the world as his laboratories. In spite of his life long effort, the gap remains. He established this award with the hope of continuing and expanding this effort!

The purpose of the award is to provide recognition to individuals that have demonstrated technical and scientific excellence in advancing the understanding of ground control technologies or approaches by ei-



ther publication or direct applications in the mining industry.

Nominations are being received for the 2006 award until August

1, 2005. The award will be given at the 2006 SME Annual Meeting, St. Louis, MO., March 27-29, 2006. You are encouraged to send 2-page nominations to Stephen C. Tadolini at e-mail: STadolini@cdc.gov. The award criteria and selection procedure are posted at SME website:

<http://www.smenet.org/>

Click on [Award|SME Society|Syd S. Peng Ground Control in Mining Award].

Or,

<http://www.smenet.org/SCRD/SCRD Awards.cfm?BUID=0/>

## SME Foundation Reception 2005



John Murphy, President of SME Foundation, announced the establishment of SME Foundation Syd S. Peng Ground Control in Mining Award.

### (Alumni News from Page 5)

- **Michael P. Zervos** (BSEM '80) is president and CEO of United Coal Co. He previously formed Global Energy Management LLC to pursue coal mining acquisition opportunities in Central Appalachia.

### (Selah #1 Mine from page 7)

our future mining engineers, and also our appreciation goes to Calvin Kidd / Continental Conveyor for making the arrangements and sponsored the trip.

## NATIONAL COAL SHOW 2005

JUNE 7-9, 2005  
PITTSBURGH, PENNSYLVANIA



2005 National Coal Show and Longwall USA Conference and Exhibit was held in Pittsburgh, PA from June 7 to 9, 2005. Several WVU MinE graduate students and professors par-

ticipated and presented papers. SME National Coal Show for the first time joined with Longwall USA to hold the regional meeting at Pittsburgh, PA. The programs included Longwall USA, Coal Operators' Forum, SME Coal & Energy, and Electric Power-Coal Market Trends. Dr. Felicia Peng chaired and presented a paper in "Environmental Issue" in Mining Session. Her paper (co-author with Fred Cornor, Peabody Energy) titled "Processing Combined Mine Drainages".



(Left to right, Upper row): Nancy Dorset, Dr. Syd Peng, Qinghua Jin, Jisheng Han and Jun Lu. (Middle row): Brijes Mishra; Ryan Murray and Dr. Syd Peng; Matthew Petrovich and Olayemi Akinkugbe. (Lower row): David Tang; Ben Mirable, Engineer from Jennmar and Dan Alexander.

## AIME SME-SPE Picnic at Krepp Park Let play ball!





## 2005 Annual SME Meeting and Exhibits, Salt Lake City, UT



**Joy and P&H Hospitality Event (from left to right, front):** Dr. Felicia Peng, Dr. Wahab Khair, Dr. Syd Peng, Royce Watts, Dr. Yi Luo, Dr. Yunqing Zhang; **(back)** Lucas O'Neal, Christian Warfield, Cade Mason, Brandon Williamson, Murali Gadde, Quanxi Wang, Zhengxing Gu, and Jackie Toombs.

### MRAC Reception 2005

SME 2005 Annual Meeting was held at Salt Lake City, UT from February 28 to March 2, 2005. WVU MinE undergraduate and graduate students, research associates and professors participated and presented technical papers. MinE Department also had a booth in the Exhibit Hall to provide a meeting place for alumni and friends. At the same time the booth displays the flyers about mining engineering scholarships to potential

students and their families. The theme of the display this year is,

**"COAL — TICKET TO ENERGY INDEPENDENCE".**

The mine trips included visiting De-serado Mine at Rangely, CO; Simplot Phosphate Mine & Mill at Vernal, UT; Dinosaur Monument at Vernal, UT; SUFCO Mine at Salina, UT; and America Gilsonite, Bonanza, UT.



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## Alumni and Friends

Editors: Faculty and staff, MinE Department

**Everything starts with mining!**

**WE'RE ON THE WEB!**

<http://www.mine.cemr.wvu.edu/>

## Student Recruiting and Lab Demonstration

Various avenues are used for MinE Department student recruiting: 1) high school seniors recruiting; 2) freshman recruiting; 3) 2+2 and 4+1 Plans with WVU Institute of Technology at Montgomery, WV; and 4) distribution of scholarship information via mining companies. Initial plans for WVUIT student recruiting are to offer underground mining and surface Mining courses as technical electives. The students in 4+1 plan will have to take an additional one year set of courses at WVU for a second degree in Mining Engineering. The students in 2+2 plan will transfer to Mining Engineering major in their Junior year.

On April 23, 2005, the Department of Mining Engineering opened its laboratory doors to the engineering freshmen class. These lab tours were designed to provide the freshmen engineering students with a more in-depth view of the Mining Engineering Department labs and as well as provide them with more information on mining engineering so they could better choose their major. This Spring, three lab demonstrations were offered: 1) Rock Mechanics Lab—the students witnessed a uni-axial compressive strength test of a sandstone specimen; 2) Coal Preparation Lab—the students observed a column flotation cell separate the fine coal particles from the fine refuse material; 3) Ventilation and Noise Lab. All of these demonstrations were well received by the freshmen and their parents, and opened many eyes to the diverse and rewarding nature of Mining Engineering.



## Chair's Message

### Dear Alumni and Friends:

In the 2004-2005 academic year, we had 11 graduates: 7 BS, 2 MS and 2 PhD. All except one went to work for coal and related industries, mostly in West Virginia. We saw a very strong employment demand in the coal and related industries. The past year represented the best year of employment for graduates with advanced degrees that I have ever seen in my tenure at WVU. In fact many of our graduate students may not return for the Fall semester due to attractive offers.

The major development in Spring 2005 was the completion of the strategic plan for the next 10 years. We thank the Visiting Committee under the leadership of John Murphy and subcommittee members Walter Scheller III (CONSOL Energy), Barry Dangerfield (PINNOak Resources), and Scott Pack (Foundation Coal) for their time and effort. Their foresight will guide and lead the program for

the next decade.

The 2004-2005 year was also an exciting year for WVU's mining engineering program. With the help from WV Coal Association and loyal alumni and with the guidance of the newly-developed strategic plan, the WV Legislature had made a special appropriation for Mining Engineering program. We are excited about the opportunity for growth. I will report in more detail in the spring 2006 newsletter.

The Spring 2005 Poundstone lecture was delivered by James Roberts, president and CEO of Foundation Coal. Foundation Coal and its predecessor companies have been a strong supporter of WVU's Mining Engineering program during the past 20 years, especially the graduate program. Through their continuing support of various projects, we have built the best graduate program in the world in the area of longwall mining, ground control and surface subsidence.

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