WVCA
P.O. Box 3923
Charleston, WV 25339

PRESORTED
STANDARD
US POSTAGE PAID
RAVENSWOOD WV
PERMIT NO 1

Quality you can rely on

Try This on for Size

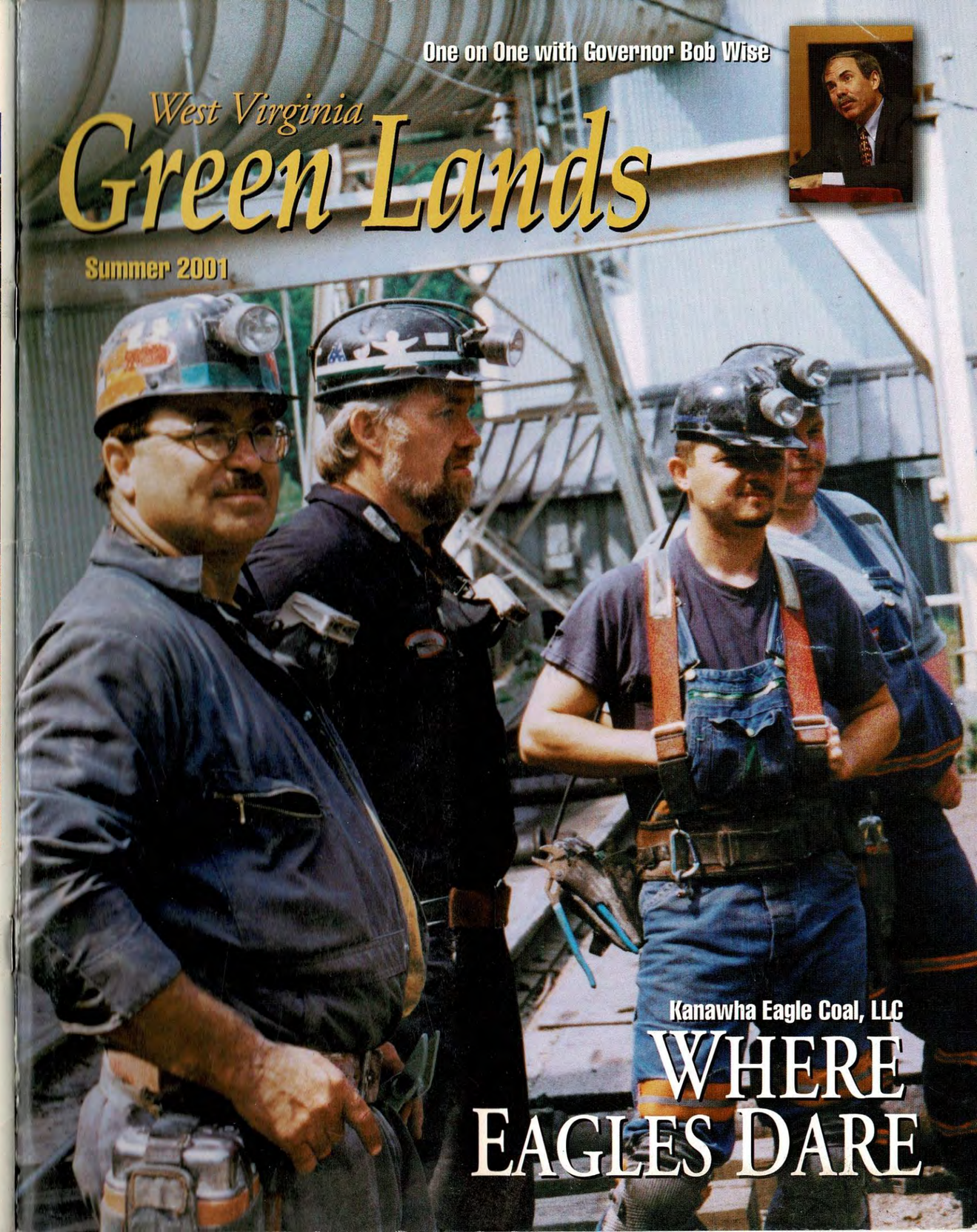
When you want the strength of a large dozer but the easy handling of a smaller machine, count on the D61EX/PX-12 crawler dozer from Komatsu. This "Big-Little Dozer" delivers 150 horsepower — the highest in its class. Add a powerful blade and you're pushing more dirt in a lot less time. An exclusive, single lever joystick design puts ultimate control in the palm of your hand. And a special Hydrostatic Steering System makes it easy to perform smooth, continuous turns. To learn more about Komatsu's D61EX/PX-12 crawler dozer and how it fits into your operation, give us a call or stop by today.

Rish
EQUIPMENT COMPANY

KOMATSU®

© 2000 Komatsu America International Company www.KomatsuAmerica.com

COEBURN, VA • 540-395-6901 BECKLEY, WV • 304-255-4111 BLUEFIELD, WV • 304-327-5124 BRIDGEPORT, WV • 304-842-3511
LOGAN, WV • 304-752-9313 PARKERSBURG, WV • 304-422-8441 ST. ALBANS, WV 304-755-3311 FROSTBURG, MD • 301-689-2211



One on One with Governor Bob Wise

West Virginia Green Lands

Summer 2001

Kanawha Eagle Coal, LLC

Where Eagles Dare

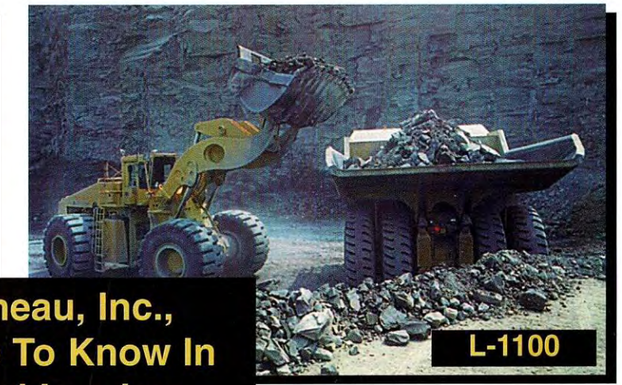
For customer support, one name towers above the rest.

Rudd. The commitment behind the equipment.

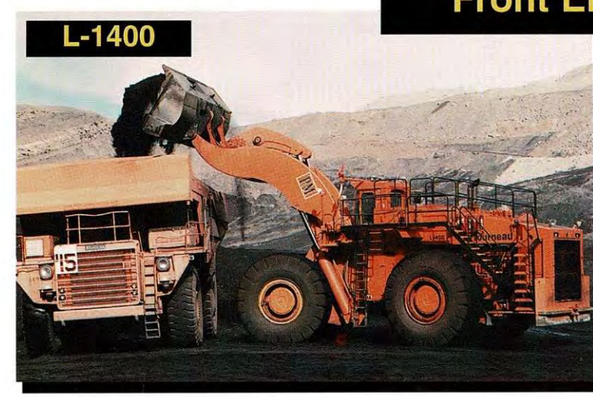
At Rudd, we've been giving our construction, mining, aggregate, logging, energy and solid waste customers the world's best equipment and the industry's best support for nearly 50 years. So talk to your Rudd representative today. Because we stand behind our equipment, we tower over the competition.

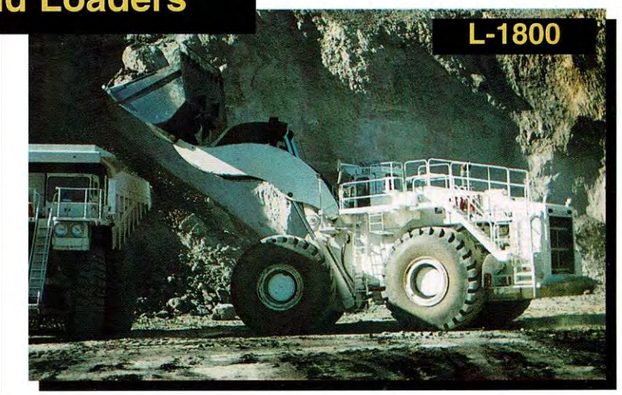
50 YEARS 1952-2002 RUDD EQUIPMENT COMPANY

Louisville, KY (502) 456-4050	Corbin, KY (606) 528-9440	Prestonsburg, KY (606) 886-1276	Pittsburgh, PA (412) 741-1731	Clearfield, PA (814) 765-8500
Evansville, IN (812) 867-6661	Indianapolis, IN (317) 247-9125	Fort Wayne, IN (219) 482-3681	Charleston, WV (304) 755-7788	St. Louis, MO (314) 487-8925



LeTourneau, Inc., The Name To Know In Front End Loaders





From the development of the first LeTourneau loader in the early 1960s to today's L-1800, LeTourneau has been and continues to be the only loader manufacturer to install electric motors inside the wheels where power is needed most.

And with today's product line, which consists of the L-1000, L-1100, L-1400, and L-1800, LeTourneau offers the largest complete line of production front end loaders available.

So when only the best-built, finest quality, most productive loader will do, remember LeTourneau, the name to know in front end loaders.

LeTourneau's Loader Line

	L-1000	L-1100	L-1400	L-1800
Operating Payload				
Standard	51,000 lbs. (23,133 kgs.)	66,000 lbs. (29,937 kgs.)	84,000 lbs. (38,102 kgs.)	100,000 lbs. (45,360 kgs.)
High Lift	48,000 lbs. (21,733 kgs.)	60,000 lbs.(27,216 kgs.)	78,000 lbs. (35,381 kgs.)	94,000 lbs. (42,638 kgs.)
SAE-Rated Bucket Capacity				
Standard	17 yd^3 (13.00 m^3)	22 yd^3 (16.82 m^3)	28 yd^3 (21.4 m^3)	33 yd^3 (25.2 m^3)
High Lift	16 yd^3 (12.00 m^3)	20 yd^3 (15.29 m^3)	26 yd^3 (19.9 m^3)	31 yd^3 (23.7 m^3)
Dump Heights				
Standard	18'-5" (5.61 m)	18'-10" (5.74 m)	21'-6" (6.55 m)	22'-0" (6.71 m)
High Lift	19'-10" (6.04 m)	20'-0" (6.10 m)	23'-6" (7.16 m)	24'-0" (7.32 m)

HEAVY MACHINES INC.

100 Smiley Drive • P.O. Box 430 • St. Albans, WV 25177
Toll Free: 800-362-3761 • Local: 304-755-7000 • Fax: 304-755-1047
E-mail: general@heavymachinesinc.com • Website: www.heavymachinesinc.com

West Virginia
Green Lands
Volume 31 Number 2

6 Meet the First WVCA Board
10 Three Inducted into the West Virginia Coal Hall of Fame for 2001
13 Governor Wise, WV Coal Forum Dedicate Miner Statue
15 The Untold Story
20 Where Eagles Dare
23 Big Eagle Railroad, Rich in History
28 One on One with Governor Bob Wise
38 Awards Corner
40 Special Recognitions
42 Investing in the Future
45 Coal Calendar
46 Acid Mine Drainage Treatment Costs with Calcium Oxide and the Aquafix Machine
52 Index to Advertisers

Green Lands
is a quarterly publication of the
West Virginia Coal Association, Inc.,
with offices at North Gate Business Park,
P.O. Box 3923, Charleston, WV 25339
(304) 346-5318, or FAX 346-5310
E-Mail: jlefew@wvcoal.com,
website: www.wvcoal.com

On the Cover
(l-r) Gary McGuire, Alvin Dingess, Jason Crawford, and Ron Hunt wait for the shuttle car to take them underground at the Kanawha Eagle operation. The area has continued to produce coal for almost two centuries.
Story on page 20.

WVCA, Inc.
Staff & Board of Directors

Chairman of the Board
Ken Woodring, Arch Coal, Inc.

First Vice Chairman
Stephen G. Capelli, Pen Coal Corp.

Second Vice Chairman
James O. Bunn, Kanawha Eagle Coal

Chairman of the Association
Ben Greene

WVCA, Inc. President
Bill Raney

Senior Vice President
Chris Hamilton

Vice President
Dan Miller

Secretary
John K. Skidmore,
Mountain Haus Properties, Inc.

Treasurer
P. Bruce Sparks, Anker Energy Corp.

Asst. Secretary
Kevin J. Bealko, Bell Mining Co.

Asst. Treasurer
K.O. Damron, Massey Coal Services

Editor
James LeFew

Directors
James Campbell, AEI Holding, Inc.
Phillip Cooper, Wind River Resources Corp.
James Copley, Jr., Coastal Coal West Virginia, LLC
Donald Cussins, Buffalo Coal Co.
Donald Donell, Starvaggi Industries, Inc.
Terry Dotson, Worldwide Equipment, Inc.
Charles Ebetino, AEP Fuel Supply
Paul Goad, AMVEST Minerals Co.
Patrick Graney, III, Petroleum Products, Inc.
Randy Hansford, Riverton Coal Production, Inc.
James H. "Buck" Harless, Chafin Branch Coal Co.
Tracy Hylton, MIN, Inc.
James Justice, II, Bluestone Coal Corp.
Bruce Meeker, Rudd Equipment Co.
Jiri Nemec, Eastern Associated Corp.
Donald Nicewonder, Premium Energy, Inc.
Ronald Osborne, U.S. Steel Mining Co., Inc.
Daniel Pochick, Rish Equipment Co.
Daniel Smith, Pocahontas Land Corp.
Wayne Stanley, Stanley Industries, Inc.
Christopher Supcoe, Crown Hill Equipment, Inc.
C. Ralph Sutton, United Coals, Inc.
D. Stephen Walker, Cecil I. Walker Machinery Co.
John Wellford, Kimberly Industries, Inc.
G.O. Young, Pittston Coal Group
Stephen Young, CONSOL Energy, Inc.
Timothy Zeli, Nelson Brothers, LLC

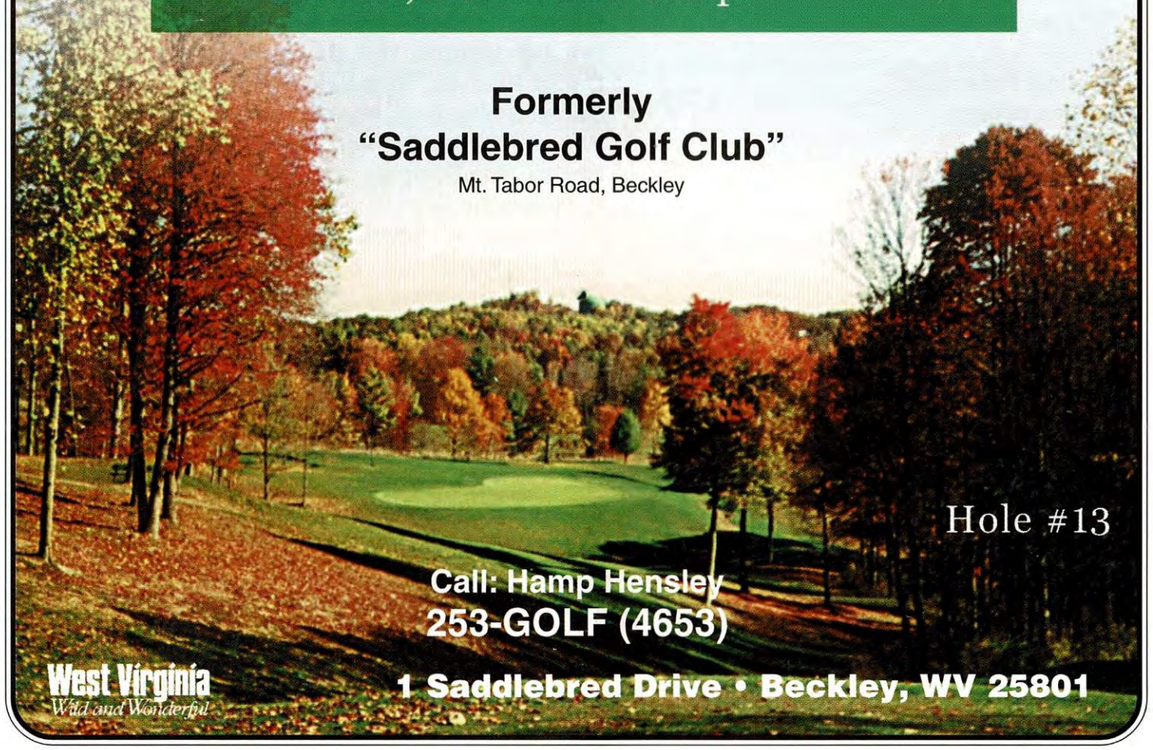
Honorary Board Members:
C.E. Compton, Bridgeport
Lawson W. Hamilton, Hansford
Herbert Jones, Charleston
James C. Justice, 1924-1993
Fil B. Nutter, Ft. Lauderdale, FL
Lawrence Streets, 1926-1998
Leo Vecellio, 1915-1996

THE BRIER PATCH GOLF LINKS

Southern West Virginia's Newest Golf Course
and
Gated Residential Community

The Only Island Green in West Virginia
Lighted Driving Range
Putting and Chipping Green
Restaurant, Bar & Pro Shop

Formerly
"Saddlebred Golf Club"
Mt. Tabor Road, Beckley



Call: Hamp Hensley
253-GOLF (4653)

1 Saddlebred Drive • Beckley, WV 25801

West Virginia
Wild and Wonderful

THE GREENBRIER IS YOUR
PREMIER PARTNER FOR
BUSINESS AND PLEASURE

Working together is a time-honored West Virginia tradition.

Like the West Virginia Coal Association,

The Greenbrier is proud to be a part of this tradition of

cultivating strong partnerships that contribute to

a better future for all of us.

The Greenbrier®
America's Resort
White Sulphur Springs
West Virginia 24986
(304) 536-1110
www.greenbrier.com

Meet the First WVCA Board

Ken Woodring
Arch Coal, Inc.
Chairman

Steve Capelli
Pen Coal Corp.
1st Vice

James Bunn
Kanawha Eagle
2nd Vice

John Skidmore
Mountain Haus Properties
Secretary

P. Bruce Sparks
Anker Energy Corp.
Treasurer

Kevin Bealko
Bell Mining Co.
Asst. Secretary

K.O. Damron
Massey Coal Services
Asst. Treasurer

James Campbell
AEI Holding, Inc.

Phillip Cooper
Wind River Resources

James Copley, Jr.
Coastal Coal W. Va., LLC

Don Cussins
Buffalo Coal Co.

Don Donell
Starvaggi Industries

Terry Dotson
Worldwide Equipment, Inc.

Charles Ebetino
AEP Fuel Supply

Paul Goad
AMVEST Minerals Co.

Partick Graney, III
Petroleum Products

Randy Hansford
Riverton Coal Production, Inc.

James H. "Buck" Harless
Chafin Branch Coal Co.

Tracy Hylton
MIN, Inc.

James Justice, II
Bluestone Coal Corp.

Daniel Pochick
Rish Equipment Co.

Jiri Nemec
Eastern Associated Coal

Donald Nicewonder
Premium Energy, Inc.

Bruce Meeker
Rudd Equipment Co.

Ronald Osborne
U.S. Steel Mining Co.

Daniel Smith
Pocahontas Land Corp.

Wayne Stanley
Stanley Industries

C. Ralph Sutton
United Coals, Inc.

Chris Supcoe
Crown Hill Equipment

D. Stephen Walker
Walker Machinery Co.

John Wellford
Kimberly Industries, Inc.

G.O. Young
Pittston Coal Group

Stephen Young
CONSOL Energy, Inc.

Timothy Zeli
Nelson Brothers, Inc.

Meet the City Insurance PROFESSIONALS

Our Professionals

NAME	POSITION	NUMBER
Don Carnell	Medical Malpractice/ Investments	(304) 926-7420
* **Charlie Carter**	Group Insurance & Life	(304) 324-3957
Nichole Deems	Personal Insurance	(304) 255-1586
Terri DeLauder	Property/Casualty	(304) 926-7414
Kelly Griffith	Investments/457 Plans	(304) 926-7411
* **Jack Grimm**	EVP Group Products	(304) 926-7408
Dave Haden	President	(304) 926-7407
Chris Harvey	Personal Insurance	(304) 926-7421
* **Richard Hatfield**	Property/Casualty	(304) 926-7413
Fred Kellmeyer	Life & Group Insurance	(304) 926-7410
* **Charlie Morton**	EVP Property/Casualty	(304) 926-7412
Frank Rutledge	Medical Malpractice	(304) 926-7422
Monica Smith	Personal Insurance	(304) 842-9206
Mike Waldron	Medical Malpractice	(304) 926-7418
Nicole Wentz	Group Insurance	(304) 926-7425
Janice Whitlock	Property/Casualty	(304) 255-1586

* Mining Specialists

You may have known...

us previously by another name: RMI, ltd. Established in 1987, we began as a small insurance agency and have progressed since then into an industry leader. Our specialists are trained and experienced in all aspects of the insurance market, including property/casualty and employee benefit programs for the mining industry. We'll customize an insurance package to cover your life, home, business, automobile or other valued property. Call or visit us today, and ask for a free, no obligation quote from the professionals at City Insurance.

Or call toll free statewide 800-377-6210 • www.citynational-bank.com • www.cityinsure.org
A Division of City National Bank

BROKERAGE AND INSURANCE PRODUCTS ARE NOT DEPOSITS • NOT FDIC INSURED
NOT INSURED BY ANY FEDERAL AGENCY • NOT GUARANTEED BY THE BANK • MAY LOSE VALUE

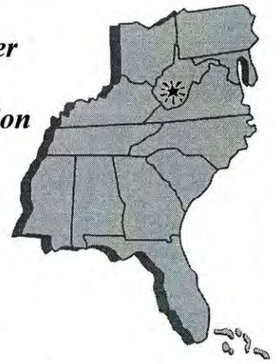
"Oil is our Product — Service is our Business"

PETROLEUM PRODUCTS INC

Beckley (304) 256•3000	Bluefield, VA (540) 326•1503	Charleston (304) 926•3000
Logan (304) 752•3900	Pineville (304) 732•6808	Williamson (304) 235•2234

Vecellio & Grogan, Inc.

Celebrating Over 60 Years in the Construction Industry



Serving the Construction Needs of the Mid-Atlantic, the Southeast, and Beyond . . .

◆ Heavy/Highway ◆ Site Preparation
◆ Coal Mining Development

P. O. Box 2438
Beckley, WV 25802-2438

Tel (304) 252-6575
Fax (304) 252-4131

Call 304 for COAL

West Virginia Coal Association
www.wvcoal.com
P.O. Box 3923, Charleston, WV 25339
(304) 346 5318 or (304) 342-4153
FAX 346-5310 or 342-7651

Three Inducted into the West Virginia Coal Hall of Fame for 2001

Stonie Barker, Jr., James L. Magro, and Joseph L. McQuade Coal were inducted into the fourth class of the West Virginia Coal Hall of Fame on Friday, May 11th at Glade Springs Resort in Daniels. Pictured are (front row left to right): Marian McQuade, wife of Joseph McQuade; and Tom McQuade, son of Joseph McQuade. Back row left to right are: Brad Magro and James N. Magro, sons of James Magro; and Stonie Barker.

Three leaders who helped shape the West Virginia's coal industry were inducted into the Coal Hall of Fame on Friday, May 11th at Glade Springs Resort in Daniels.

Those inducted as the Hall of Fame's fourth class were: Stonie Barker, Jr., retired chairman and chief executive officer of Island Creek Coal Corporation; James L. Magro (deceased), former corporate vice president, Consolidation Coal Company, Blacksville Operations; and Joseph L. McQuade (deceased), former president, Maust Coal and Riverton Coal Company.

In 1978 **Stonie Barker** played a major role in an agreement on a new contract between the United Mine Workers and the coal industry. This agreement followed the longest coal strike in industry history. For two years thereafter, he served as chairman of the Bituminous Coal Operators Association.

Barker was chairman of the National Coal Association in 1982 and 1983. He was presented the Coal Man of the Year Award in 1984. He has served as Director of the American Mining Congress, the National Coal Association, the American Coal Association and the Blue Grass Council of the Boy Scouts of America. He has been a member of the American Institute of Mining and Metallurgical Engineers, the King Coal Club, and the Old Timers Club.

VPI has endowed a chair in its Department of Mining Engineering in honor of Barker.

James Magro was a third generation coal miner. His grandfather was a coal miner, and his father was a UMWA official.

In June of 1982 he retired from Consolidation Coal Company with 35 years of service to the mining industry.

During his time at Consolidation Coal Company, Magro perfected the longwall mining system at the Blacksville Operations. The first longwalls for CONSOL were run at Blacksville. Due to his successful efforts in pioneering longwall systems for CONSOL, the shift was made in the company to longwall coal mining. CONSOL is now the largest underground producer of coal in the United States utilizing more longwall systems than any other U.S. coal producer. He was credited for working with Joy Machinery to develop the 12-CM continuous miner with roof bolters. This machine became one of the primary continuous miners used for longwall development in CONSOL's Northern West Virginia Mines. Magro died earlier this year.

Joseph McQuade was President of the West Virginia Coal Mining Institute and the National Mine Rescue Association in 1963, and a member of the King Coal Club. He also received West Virginia's Man of the Year Honors. The West Virginia Hillbilly Newspaper's "University of Hard Knocks" awarded him the degree of "Doctor of Production", a title he prized highly.

During his tenure at Maust Coal, McQuade improved the efficiency of the mines by converting underground operations from direct current to alternating current. He successfully developed mines in coal seams of less than 30 inches and devised several improvements in methods for cleaning coal fines. He patented improvements in a type of continuous miner and also pioneered the development of new techniques in cleaning plants.

In 1965 he founded Riverton Coal with Jack Long. McQuade died in early 2001.

Criteria for coal leaders to be inducted into the Hall of Fame are:

- Significant contributions to the development and growth of the coal industry in West Virginia as evidenced by documented accomplishments.
- Devoted a minimum of five years of his/her career directly related to the West Virginia coal industry and have been a major contributor to the growth and development of the West Virginia coal industry.

Both living and deceased persons are eligible for selection.

The home of the West Virginia Coal Hall of Fame is the Mineral Resources Building at West Virginia University, Morgantown and is sponsored by the WV Coal Mining Institute and the West Virginia Coal Association.

Coal Hall of Fame Honorees

Class of 2001

Stonie Barker, Jr.
James L. Magro
Joseph L. McQuade

Class of 2000

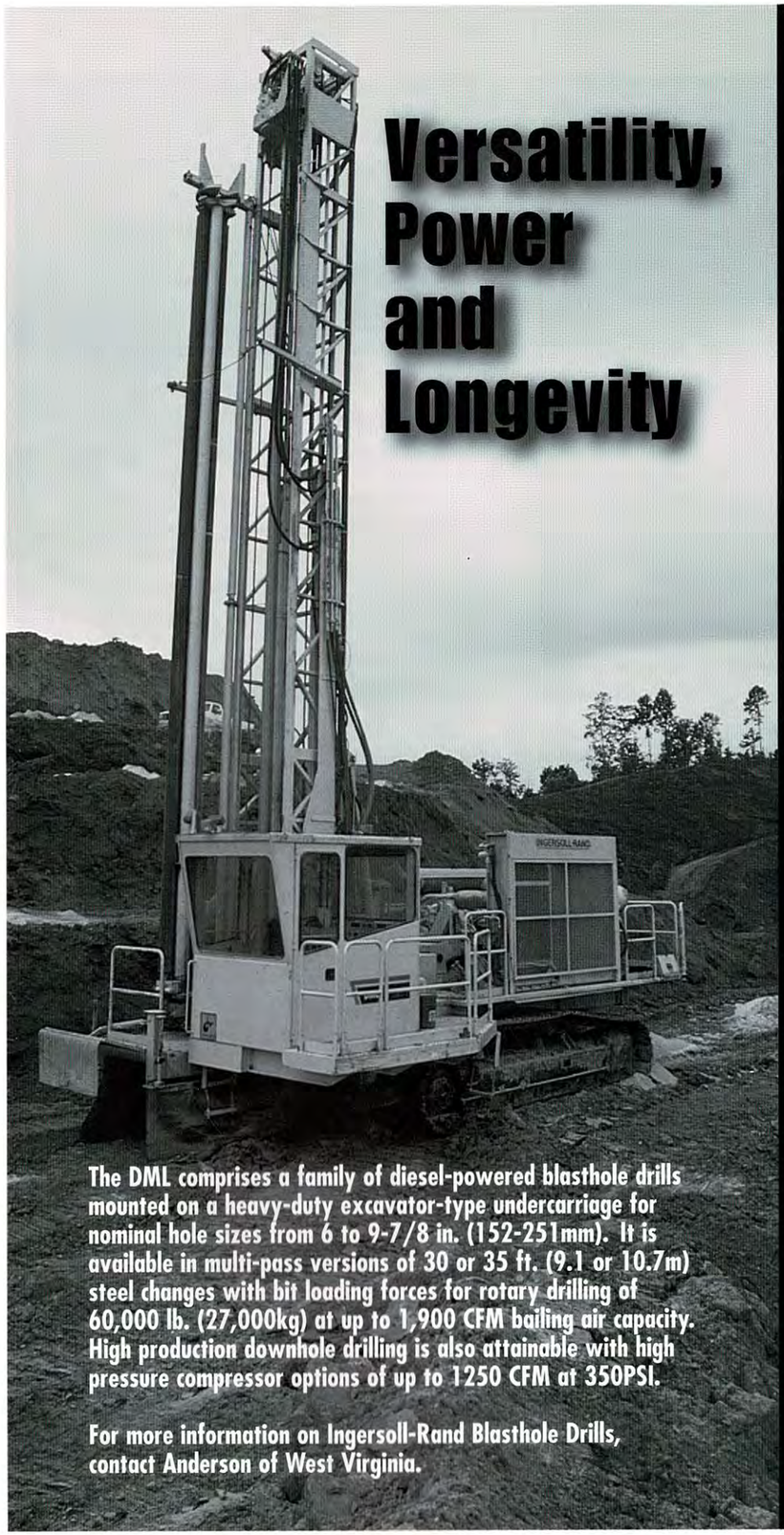
Benjamin C. Greene
John E. "Jack" Katlic
James R. Thomas, II

Class of 1999

Herbert E. Jones, Jr.
F.B. "Fil" Nutter
John L. Schroder, Jr.

Class of 1998

B.R. "Bobby" Brown
C.E. "Jim" Compton
Lawson W. Hamilton, Jr.
James H. "Buck" Harless
Tracy W. Hylton, Sr.
James C. Justice, Sr.
E. Morgan Massey
Allen S. Pack
Robert H. Quenon
Raymond E. Salvati



Anderson
EQUIPMENT COMPANY

SOUTHERN WV
Route 119 South
Alum Creek, WV 25003
Phone: 304-756-2800
Fax: 304-756-2799

NORTHERN WV
7 Ruskin Drive
Fairmont, WV 26554
Phone: 304-366-3075
Fax: 304-366-7214

INGERSOLL-RAND
CONSTRUCTION & MINING

Gov. Wise, WV Coal Forum Dedicate Miner Statue

"Leading the charge to make the 'West Virginia Coal Miner' statue a reality, is the West Virginia Coal Forum," said West Virginia Governor Bob Wise, during the kickoff at the Governor's mansion.

The Governor, in conjunction with members of the Coal Forum and state legislators, kicked off the fund-raising initiative for the West Virginia Coal Miner statue that will ultimately be placed on the Capitol grounds.

The statue is designed to recognize the men and women, of the past, present and future, who have contributed to the extraction of coal from beneath our state's mountains to provide the state, the nation and the world with low cost household and industrial energy.

Scheduled for completion in Spring 2002, the bronze statue will stand seven feet, six inches tall. The cost to create the sculpture will be $150,000.

The statue was designed by Burl Jones, a West Virginia native. Jones is recognized as one of the country's most respected bronze sculpturists.

The Coal Forum, an organization comprised of coal management and labor leaders from around the state, has taken the lead in advancing the statue into a reality that includes raising monies necessary to complete the project.

"This organization - which brings together representatives from labor and industry and operates as an arm of state government- was established to facilitate public discussion of important coal related issues by the two groups most closely related to coal," Gov. Wise said. "It is very fitting, then, to recognize the accomplishments of our miners by erecting a statue in their honor, and I want to thank Fred Tucker of the UMWA and Chris Hamilton of the West Virginia Coal Association, who are Co-Chairmen of the West Virginia Coal Forum, for spearheading this effort."

W.Va. Governor Bob Wise, W.Va. Coal Forum and state legislators dedicated a replica of a coal miner statue as a part of the initiative that will place a full size statue on Capitol grounds. Pictured are: Delegate Mike Caputo (D-Marion); Fred Tucker, W.Va Coal Forum; Bill Raney, W.Va. Coal Association; Cecil Roberts, UMWA; Vic Green, Coal Mine Health and Safety Board; Burl Jones, sculptor; Senator Roman Prezioso (D-Marion); Gov. Bob Wise; and Chris Hamilton, W.Va. Coal Forum.

Gov. Wise also noted that mining is and has been an economic cornerstone in this state, providing livilhood for thousands of people and supporting vital public services in our communities.

The West Virginia Legislature passed Resolution 24 during the 1999 Session requesting a statue of a West Virginia coal miner be placed on the grounds of the State Capitol as a reminder of the impact of the coal industry on the state.

"I want to applaud the Legislature, which recognized not only the important historical legacy of mining in West Virginia, but the vital role mining plays in our state today and the role it will play in the future," Gov. Wise said.

Caustic Soda • Anhydrous Ammonia
Bagged/Bulk Calcium Oxide Chips (Quicklime)
Soda Ash Bricketts • Alum
Consultants • Contract Hauling

Calcium Chloride
(for dust control and road stabilization)

Eagle
CARBON, INC.
Water Treatment Chemicals

321 CHESTNUT HILL ROAD
SUMMERSVILLE, WV 26651
DISPATCH (304) 465-0941

TODD A. DEAN, PRES.
HOME: (304) 872-4176
PAGER: 1-800-982-2327
PIN # 4176

Let us add a farming dimension to your seeding needs

Bell Farms
Reclamation
Summersville, WV

Robert Gene Bell, Jr.
(304) 872-6183

Specializing in
- Land Reclamation
- Hydroseeding
- Erosion Control

Robert Gene Bell
Rt. 1 - Box 373A
Summersville, WV
26651
Phone (304) 872-3749
FAX (304) 872-6891

"We buy river dredge coal from the Big Sandy River, from the Kanawha River, pond fines that have been sitting there for years. We're buying every pound of that we can use," said Fred Verardi, president of Kanawha River Terminals.

The synfuel industry has become an essential part of the coal industry and an important part of West Virginia's economy.

Clearly, synfuel and West Virginia have become an integral part of KRT. The company operates three plants in West Virginia and one in Kentucky.

"We're actually hoping to place two or three more plants in West Virginia, but only if the business climate is going to stay positive for us," said Dave Carter, senior vice president of fuels and terminals for Electric Fuels Corporation, KRT's parent company.

Economically, the synfuel industry appears to be a positive mark for the state.

The synfuel market has created new jobs, a new market for using waste coal and helping the economy.

"When we started in 1996," Verardi said, "KRT had less than 100 employees and today we have 400. That doesn't include those who support the synfuel industry.

Today, we spend in excess of $1 million every day in West Virginia. That includes buying coal, power, wages, and spare parts. All that money is going into the local economy."

The company pays more than $10 million annually in taxes to the state. A part of that is the 50 cents-a-ton tax levied on synfuel by the state's Legislature last year to fund the Division of Environmental Protection's program.

Verardi noted it costs the company just $500,000 to move a plant to a new location and takes about 45 days.

Although synfuel appears to be an industry that has emerged suddenly within the coal industry and throughout West Virginia, the business actually originated during the energy

"Today, we spend in excess of $1 million every day in West Virginia. That includes buying coal, power, wages, and spare parts. All that money is going into the local economy."

Fred Verardi, president
Kanawha River Terminals

crisis of the late 1970's as a result of government and industries searching for ways to reduce dependence on foreign oil. Tax credits were created to encourage companies to find alternative energy sources.

Peter Scott, executive vice president and chief financial officer for Progress Energy, Electric Fuels' parent company, said these tax credits would not last forever. He told his company's shareholders during a meeting in May that the tax credits would only last six more years.

"Right now it looks pretty good" he said of synfuel, "but we have to assume by 2007 it will go away."

Currently, companies are getting about $25 per ton federal tax credit for producing synfuel from WV coal.

However, according to federal law, there could not be additional synfuel plants built in the United States after June 28, 1998.

Only 55 plants made it into operation nationally by that date.

The Internal Revenue Service regulations specify the coal size that can be used in making synfuel. The majority (or 51 percent) of the coal "must be 3/8 of an inch by zero inches" in size.

Although IRS specifies the size of the coal and chemical makeup of synfuel, it does not require companies to use waste coal. In fact, it is not even mentioned in the regulations.

"We are going above and beyond what the federal law requires us to do and helping to clean up the environment," Verardi said. "You never hear about that."

Nonetheless, waste coal meets the requirements for coal that can be used in the making of synfuel and KRT has tapped into a market that did not exist just several years ago.

Waste coal that KRT uses in synfuel are coal fines with high moisture and very low Btu's or coal that would normally be unusable.

If waste coal was useless before, how can it be used now in synfuel?

Massie
Reclamation, Inc.

STAND BACK
AND WATCH
US
GROW!

We specialize in
- **hydroseeding**
- **dust control**
- **straw blowing**

Charles Massie, President
P.O. Box 349 • Bradley, WV 25818
(304) 877-6460 • FAX 877-6462

"The process takes the raw material, whatever it is, and runs it through the synthetic fuel plant, and converts the fines or the waste products into synfuel. Then you mix it with other coal to come up with a product that has high Btu's.

With synfuel, you are permanently changing the chemical bonding of that product so you have made a new product," Verardi said. The feedstock is thoroughly mixed with a hot chemical change agent and then subjected to higher pressure to enhance the permanent chemical change.

That's why we send these samples away to chemists to make sure we've done that. Even though the regulations do not require it, we take samples every day and send the information to three independent locations to make sure we are complying with regulations."

KRT is trying to buy as much waste coal and river dredge as it can to use in its synfuel. Consequently, buying waste coal is helping to clean up the environment.

"We are buying fines out of the old Gary (WV) refuse pile," Verardi said. "It is a refuse pile that has been on the hillside for years. Through a contractor, we are cleaning up this site.

With the tax credits, we pay a contractor enough money so he can afford to clean up these refuse sites. If you read the IRS regulations, it doesn't require you to use waste products, but we do that."

KRT produces about one million tons of synfuel every month. Is there a market for it?

"Yes," Verardi said. "They're buying everything that we can make."

Carter concurs. "We like working in West Virginia and we're proud to be a part of the state."

Storage tanks at Kanawha River Terminals that hold the chemical agent that, when applied, permanently changes the bond turning unmarketable coal fines into synfuel.

The BIGGEST Name in BIG TIRE Service!

With over 25 years experience **SERVICING BIG TIRES**, no job is too **BIG** for the team at **COBRE TIRE**. We're proud of the **SERVICE** we provide our customers, so naturally, they're our best references...

How did we become the world's largest retailer and service provider to the construction and mining industry? Easy. By implementing our "Total Tire Management" system. Simply defined, it's our exclusive professional tire management program that extends tire performance and reduces our customers' operating costs.

To learn more about our **SERVICE** based company, our professional tire management program and the names of our well-**SERVICED** clients, **CALL 1-800-722-0007.**

BRIDGESTONE/FIRESTONE OTR

COBRE TIRE

A Division of BRIDGESTONE/FIRESTONE, INC.

Our Reputation Is In Your Hands

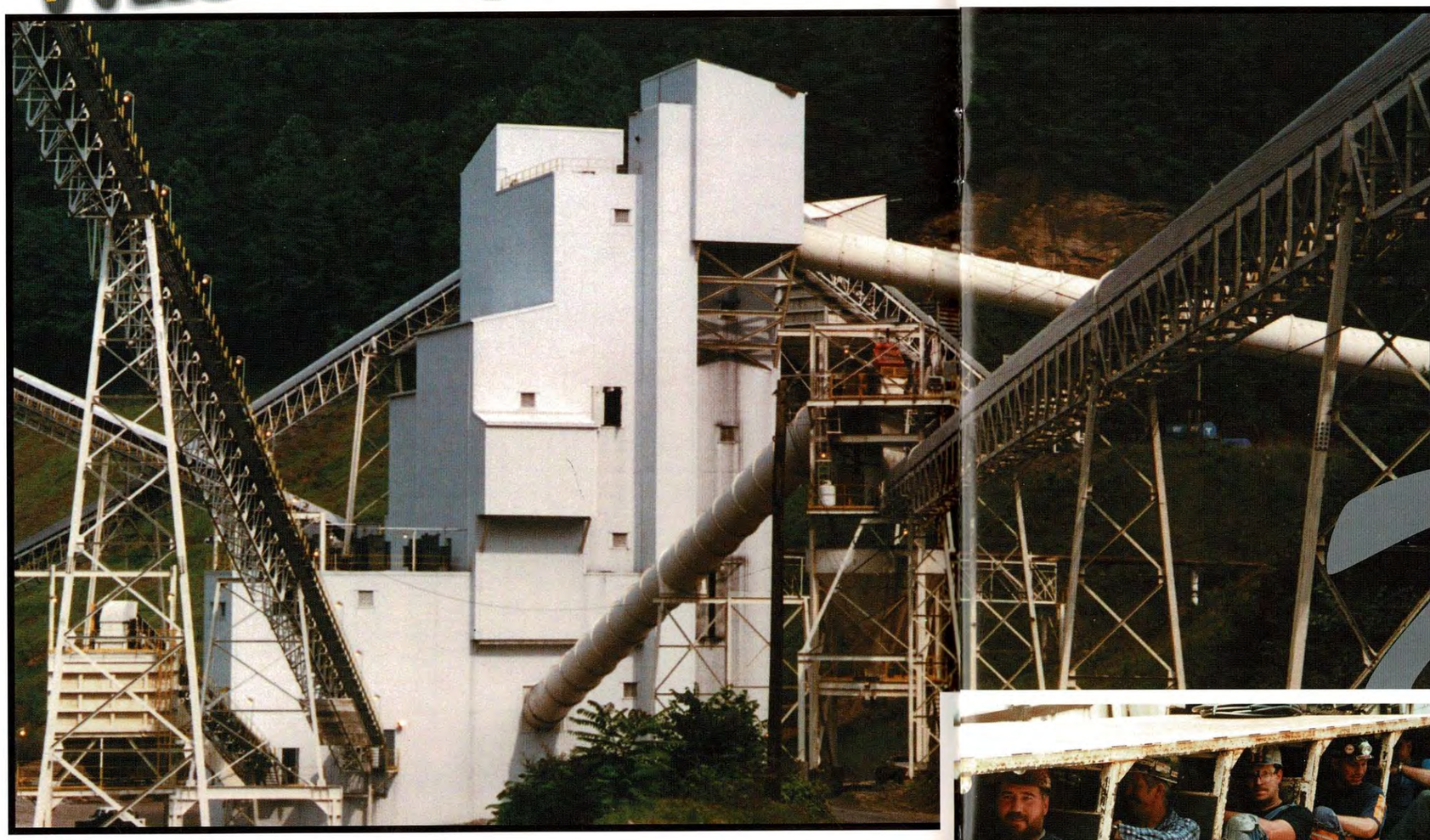
That's why Carter Machinery is fully committed to total customer satisfaction. When you have the CAT equipment you need, the support you require, and the service you deserve,

you've got all the tools you need for success. We back up all of our customers with the right equipment, 21 convenient locations and highly trained technicians. Service and parts are always available when you need it. That's our promise to you.

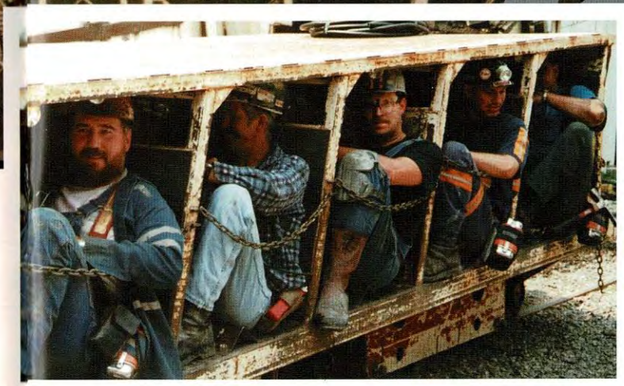
Carter CAT

(800) 768-4200

Where Eagles Dare



Kanawha Eagle ventures into Winifrede Hollow, an area where mining has taken place for almost two centuries.



William O'Conner began his coal mining operation here in the mid 1800's. The town Winifrede is named after his daughter.

The Morton family, Carbon Fuel, IT&T and U.S Steel all followed with similar operations.

For more than 150 years, coal companies have mined this particular hollow of Kanawha County in search of the valuable mineral. Now, after being idle for the past 15 years, Kanawha Eagle Coal, LLC has staked the latest claim on Winifred Hollow.

Yet it seems somewhat odd that a coal operator would start a business here today, when so many have mined here before.

"We decided to operate here because of the quality of the coal and the amount of reserves. This operation has 150 million tons of recoverable coal," said Jim Bunn, the company's managing member.

> ***"I've always surrounded myself with good people," he said. "We have the finest labor in the industry. We continue to advance by upgrading our technology every chance we get."***
>
> **Jim Bunn, managing member, Kanawha Eagle Coal, LLC**

"There are very few places in West Virginia where you have all three forms of transportation, rail, truck and barge. This is the best shipping place in southern West Virginia."

Kanawha Eagle opened its underground mine in April 2000 on the borders of Boone and Kanawha counties. The first coal was moved on June 7, 2000. Bunn expects the mine to be in operation for 30 to 70 years.

"With our present production," Bunn said "we have a life of 70 years. We hope that we can move production up to 4 to 5 million tons a year. Once we do that, we will have a 30-year life."

The operation is a slope mine. It has a 1,785 foot slope that travels 500 feet below the surface.

Loaded cars heading to Kanawha Eagle's shipping point where coal can be moved by barge, truck or continue by rail.

It consists of two super section mines and one development section. Each section, using the room and pillar method, employs about 15 people, which includes two continuous miners, three shuttle cars and two roof bolters.

When the mine first opened, Kanawha Eagle was producing about 3,000 tons of coal a day. Now, after only one year in operation, the company has expanded production to 6,000 tons a day.

Once coal is mined at the operation, the company uses its short line railroad, called the "Big Eagle" to transport coal to main shipping points.

This short line has been called one of the oldest railroads in West Virginia dating back to O'Conner's operation in the 1850's.

The Big Eagle consists of a total of 32 cars with the track owned by Penn-Virginia and is leased to Kanawha Eagle for the life of the of the operation.

Although the short line moves 6,000 tons a day, the track is capable of holding 37,000 tons in storage.

Once the rail cars are loaded, it will take only 30 minutes for coal to reach the river dock for loading into barges.

"We have rapid discharge rail cars," Bunn said, "and if needed, we can unload 3,000 tons of coal an hour."

Bunn is overflowing with confidence in his team.

"I've always surrounded myself with good people," he said. "We have the finest labor in the industry. We continue to advance by upgrading our technology every chance we get."

Nonetheless, Bunn admits that he has seen the coal market change since the mine opened a year ago.

"One major difference is that labor is extremely difficult to find now," he said, "and even though coal prices are up, Kanawha Eagle, like other operators is committed to lower price, longer-term contracts."

Finding solutions to these problems are nothing new to Bunn, who comes from a long coal-mining tradition. His grandfather, James C. Fry, originally worked in the mines at Coalwood, W.Va. He later

Big Eagle Railroad, Rich in History

The train engine chugs slowly, pulling cars loaded with coal through Winifrede Hollow. A site that residents have seen for more than 150 years. The eight-mile shortline railroad, linking the Eagle Mine to the Kanawha River and CSX, is rich in history.

The Winifrede Railroad, predecessor to the Big Eagle Railroad, began operation in 1853 making it the first railroad in the Kanawha Valley and behind the Baltimore & Ohio, the second railroad in the state. In 1851, the Winifrede Mining & Manufacturing Company (WM&M) purchased two large tracts of coal and timber along the Kanawha River and Fields Creek in Kanawha County. Seeking efficient transportation modes for its coal and timber resources, the new company built a railroad to connect its mines with boat and barge traffic on the Kanawha River. British civil engineer Ralph Swinburne, who gained experience with railroads by operating the world's first steam locomotive, was retained by WM&M to construct the railroad. Swinburne designed and constructed the wooden rail narrow gauge line. Until a steam locomotive arrived by riverboats from a manufacturer in Cincinnati, the line operated

(continued on page 41)

operated his own mine in the 1940s in East Lynn, W.Va. His father, Omer M. Bunn, operated mines in West Virginia and Virginia into the 1980s.

"My first job after graduating from Morris Harvey in 1970, was with Black Lode Coal Company, he said. "It was my family's operation on Twenty-Mile Creek in Nicholas and Clay counties."

When Black Lode Coal Company was sold in 1971, Bunn entered West Virginia University in the fall to pursue a mining engineering degree.

His son, Jim Bunn II, also works in the family business, was the project manager that redesigned the tipple for the Kanawha Eagle mine.

As any coal operator in West Virginia can attest, there are risks to be taken in this industry, sometimes big risks. And, as Bunn will admit that he is not immune to failure, he has won a few and lost a few.

"My success in life is due to having good partners and good friends," he said.

In a mine that has seen activity for close to two centuries, that has been considered "mined out" several times, and where other operators have given up, Jim Bunn of Kanawha Eagle, has been able to use today's technology and found a silver lining.

Get Paid for All Your Hard Work!

Daniels Law Firm

- Mechanic's Liens
- Materialman's Liens
- Payment Bond Surety Claims
- Miller Act Claims
- Federal and State Court of Claims
- Prompt Payment Act
- Mediation
- Arbitration

Call 342-6666

12th Floor • One Valley Square • Charleston, West Virginia

More hours. More tons. More life.

That's **FORWARD** MINING.

It's more than just words. It's a way of doing business. It comes through in every idea, every product and every solution we provide.

... And that's The Walker Difference!

Walker CAT

www.walker-cat.com

Charleston
Route 60 East
Charleston, WV 25015
(304) 949-6400

Parkersburg
4010 Emerson Ave.
Parkersburg, WV 26101
(304) 424-0200

Logan
Route 10
Rita, WV 25619
(304) 752-0300

Beckley
Route 16
Crab Orchard, WV 25827
(304) 253-2706

Summersville
815 Main Street
Summersville, WV 26651
(304) 872-4303

Huntington
837 Adams Ave.
Huntington, WV 25704
(304) 526-4800

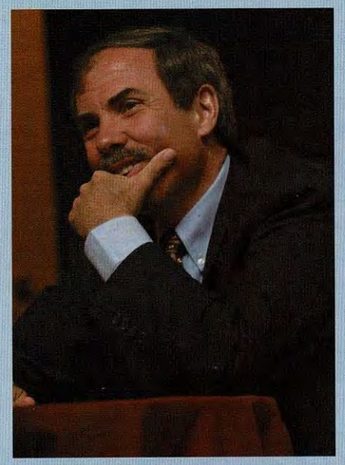
Jackson, Ohio
1477 Mayhew Rd.
Jackson, OH 45640
(740) 286-7566

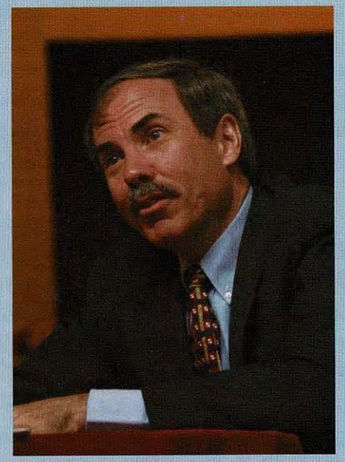
After spending 18 years representing West Virginia in the U.S. Congress, Bob Wise changed paths and was elected the state's 33rd Governor.

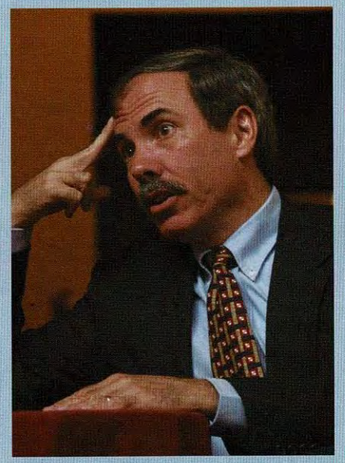
On May 11, 2001, Governor Bob Wise met with members of the West Virginia Coal Association and the West Virginia Coal Mining Institute during the spring meeting at Glade Springs, in Daniels and discussed his vision and perception for the future of the state and the coal industry.

Prior to that, however, he broke away from his busy schedule to speak with *Green Lands*.....

One on One







with West Virginia Governor Bob Wise

Photography: John Bright

"Coal means 'electricity,' it means 'heat' it means 'an occupation that produces a low cost energy that permits somebody to have a job.' So, whether you are talking about providing for your family or simply heating your house, coal can provide a lot of comfort for all of us."

***GL:* Governor Wise, there is a picture of a coal miner with his two children hanging in your office. Tell us about that.**

WISE: I saw it several years ago at an MSHA safety conference. It just struck me because it is a miner, just off work, walking up the road to his home. He is hand in hand with his daughter, who looks to be about 4 or 5 and his son who looks like he is about 6 or 7. They are walking away from us. You can tell he is tired from a hard day's work.

That picture says to me so much of what that miner wants for his family – he is a family person, he is deep in traditional values, he wants his family to have every opportunity. It reminds me every time I look at it whom it is I represent.

***GL:* Do you see that type of tradition in today's West Virginia coal miners?**

WISE: Yes, I sure do. Although this picture is about eight years old, it certainly is relevant to the miners today.

***GL:* We understand your family had some familiarity with the coal industry.**

WISE: My father sold health insurance for about 25 years and much of his business dealt with the mining industry. I can still remember when I was very young on my first trip with him going to Slab Fork.

***GL:* How has your view of the state's coal industry changed since you moved from Congress to Governor of West Virginia?**

WISE: I don't know that my view has changed, I represented W.Va. for 18 years and during that time I dealt with a number of coal issues in terms of making national policy, for instance urging funding for clean coal research, and, a responsible and common sense environmental policy. While in Congress, I opposed the Kyoto Protocol.

What has changed though, is my role. In Congress, I was concerned about developing policy, but I never had to implement it. As Governor, I have to implement the policy and I have to be "hands on."

If you are in Congress, there are certain ways you respond to issues. You don't have to respond to it directly that particular day. On the state level, however, you have to work in a "hands on" manner to make something happen right away.

The other piece as governor, is that you have to be implementing not only state policy, but all federal policy as well, particularly in the coal industry. As Governor, one difference is that I have to have a day-to-day relationship with the coal industry as opposed to Congress where the congressional delegation will meet periodically with representatives from the coal industry. We would follow what's happening, but it's not something that we were working on everyday. An exception is when there would be some kind of major upheaval such as what occurred with the mountaintop mining decision. Then the federal delegation was meeting on a regular basis to deal with it.

"I think that for a reliable, long-term supply, it's coal-fired power plants that can provide it."

***GL:* What are your observations of today's surface and underground coal mines in West Virginia?**

WISE: I've toured some surface mines, but I haven't been underground in some time. Mining obviously has changed in the last 20 years. I think the techniques and methods certainly have improved. I believe there is more sensitivity to the environment and what needs to be done. There is more planning that is going into it. I think one thing that is going to need to be done in both state legislation and federal law, particularly new state legislation, is to require more planning on the front end on how you can use a reclaimed site and I think that is healthy. And, there are areas that the state can assist because if we see a reclaimed site that can have certain economic uses, then we can be planning in advance how to run water and sewer, roads or whatever else that needs to be done.

It is important that the state and coal industry work closer than we've seen in the past. The West Virginia Coalfield Development Office, which was created by the State Legislature two years ago, can provide much of the means to do that.

Senate President Tomblin was able to get legislation through this last session that encourages communities and the coal industry to work closer together. In some cases, a company can engineer its reclamation a certain way to help with a community's needs and everybody comes out ahead.

For example, I was on a site recently, where the industrial park that is being built in McDowell County and where the first section of the coalfield expressway is being built. Instead of returning the site to its original contour, it is being reclaimed to accommodate development. What they are doing is taking the overburden and making a valley fill on which the road will cross.

***GL:* What role does coal play in your vision for West Virginia?**

WISE: We have a great opportunity here. I could summarize by saying that once in every 15 years we are able to say "we're back" in the sense that once again the nation is concerned about energy. We are talking about why we need a national energy policy, something that I have talked about and urged for a long time.

I thought we would have learned our lesson from the Persian Gulf War. I thought for sure that after we sent our sons and daughters overseas to defend the energy supply line, we would adapt a true national energy policy. But memories got short and we never did.

So we are back to the same problem. How do we take advantage of it and what challenges do we face? My answer to these questions is to have a state energy policy. I've named a chairman, Pat Esposito, Sr. from Morgantown. We want to include members of the coal industry on this committee. We want to make sure we develop a true state energy policy that not only looks at issues of how can we increase production, but how we can also make sure that it is a stable environment to work in with some certainty in it.

The state energy policy will focus on a number of areas. For instance, I think we need to assist in the areas of transportation, and environ-

mental issues. What should our position be on regulatory issues? How can we expedite permitting? And finally, I think we have a clear obligation to be participating in some kind of research.

I don't believe you can stick your head in the sand and say there aren't going to be any environmental challenges with the increased burning of fossil fuels. I happen to think you can burn coal cleanly and do it in an environmentally sound way, but we have the responsibility to demonstrate that and to also be assisting in the research to do that. That's why I believe strongly in funding clean coal research programs. We ought to be forming more of a relationship and partnership with the federal government and private groups that are doing this kind of research. We should be saying "we not only can supply more coal, but we can show the nation that it can be burned cleanly."

The fact of the matter is that the country really has no choice, with roughly 54 percent of our electric power being generated from coal, there is no other source in the near term for this nation, particularly if its economy continues growing.

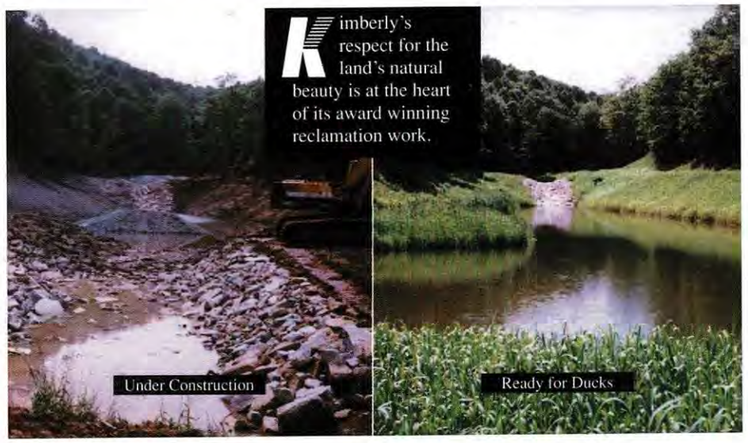
However, we all know the pressures that have developed. Concerning fossil fuels emissions, my position is – "we can mine the coal, but we can also work to make sure that people are assured that it is being burned cleanly."

***GL:* How big is the task force going to be and who is going to be on it?**

WISE: Representatives of the different industries, coal, natural gas, regulators, and we will probably seek some representative from the environmental community who want to help propose some solutions. The way something like this works, is that the group will put out a draft and then let people react to it and bring their thoughts in and then fine tune it.

I am not interested in a task force that drags on for years. I tend to be a very goal oriented person and I want a group that works quickly, deliberates and comes out with a product that we can use soon. Some of those things need to be done and done pretty quickly. I mean in a matter of months, it needs to be put into play.

Kimberly Industries. The Get it done right Company



We have the people, equipment and experience to complete your project with the highest safety and quality standards.

Call Roger Dunlap at 1-800 346-3795, ext. 8047 to find out more about our award-winning, earth moving project experience and how it can work for you.

***GL:* Will your energy task force be focusing around this state policy?**

WISE: Yes, we want everyone to have input into this and to bring forth what they think needs to be done. I have seen several coal booms during my life and I want to be sure we come out of the current one with more than just increased production. I think there is a way to have a continued increased coal market. We can create jobs in this state mining coal and by showing how to burn it cleanly.

In the (coal) industry, for instance, what we are dealing with is emissions controls. Some people don't want to talk about emissions. We have to fess up, there are certain emissions and there are certain impacts on the environment.

I don't support the Kyoto agreement because I think it is unfair to the United States. Forty percent of the fossil-fired emissions by 2010-2015 will come from mainland China and they would have no controls put on them by the Kyoto Protocol.

***GL:* How does the state plan to administer reclamation laws and regulations?**

WISE: We are going to have to deal with the issue of bonding. I don't predict what the federal courts will do, but the federal law is pretty clear. I think we are going to have to face the challenge on the adequacy of the West Virginia bonding requirements. Our law says that you cannot charge a bond over $5,000 per acre. SMCRA says that you have to charge potential reclamation costs so they require you to be site specific. We're following the state law and we are probably going to be challenged on it.

(Editor's note: West Virginia was challenged on this issue in federal court on November 14, 2000, but the state was subsequently dismissed from the action.)

The choice that goes before the state and the coal industry is this: we can engage in long extended litigation or we can develop a means to develop an approach that avoids this conflict. Yes, it will cost more in terms of bonds, but I'm concerned how much more it will cost if we don't do it.

We have great opportunities in the energy market. The question is "are we going to be able to take full advantage of the market or are we going to miss the market?" When I say miss the market I mean are we going to be caught up in a wave of litigation and conflict that won't permit us to take full advantage of the market as it is opening up and permit West Virginia to participate fully? I would prefer to anticipate some of these problems that could be coming and deal with them now, so that all of our companies could take full advantage of the market.

***GL:* How do you think raising the bond will effect the coal companies?**

WISE: We could increase the current three cents a ton amount to take care of the bonding problem. At a time when the price of coal is increasing from $22 a ton, going up to whatever, it seems to me that is a small price to pay in order to eliminate a lot of conflict and threaten the ability to get more coal produced. I am willing to look at all proposals, but what I don't want to do is not deal with it. We are going to be forced to deal with it.

***GL:* President Bush is working towards mining more coal to help the U.S. achieve energy independence. Do you think there are specific steps we can take in WV to help achieve this goal?**

WISE: I think the state's energy plan that I've talked about goes a long way in doing that. The issues aren't simply how do we get more out of the ground, but how can we transport it safely? What are the rail policies? What needs to be done to guarantee that we are able to get the coal to the markets, make sure we can mine it safely? How do we mine it in an environmentally appropriate way and make sure that we can burn it cleanly?

***GL:* You have coined the phrase "coal is comfort." Can you elaborate on what you meant?**

WISE: Coal means "electricity." It means "heat." It means "an occupation that produces a low cost energy that permits somebody to have a job." So, whether you are talking about providing for your family or simply heating your house, coal can provide a lot of comfort for all of us.

Governor Bob Wise takes a moment to show off his picture of a miner and his family.

***GL:* How can WV take advantage of rising energy needs?**

WISE: Any state that exports 70 percent of its power obviously can help, at least nearby states, with affordable power. We can be marketing our low-cost, abundant power.

I've sent several hundred letters to California companies pointing out that in West Virginia, we don't have to worry about blackouts. We have low cost electric power, reliable power and we export 70 percent of it. And, whether we are encouraging companies to locate here to take advantage of it, or exporting the power, we gain. We also can be looking at increased mine-mouth generation. We have at least one company exploring that concept and I believe there will be more power plants that are looking to site in West Virginia because they will be close to the fuel supply.

***GL:* Do you support the building of new coal-fired utility plants in WV?**

WISE: Absolutely. I think there is going to be a real competition between coal-fired and natural gas-fired being used not only for peaking plants, but also for base load. But, I think that demand for a reliable, long-term supply, it's coal-fired power plants that can provide it. Now, once again, and this is where we get into the state's energy policy, we have to recognize there are going to be strict emissions controls on those plants. We have to be willing to work to develop the technology that will handle that and I think that can be done.

We also need to reexamine and reshape policies - on the state or national level - that present barriers to market entry for innovative new power producers. As we learned from the deregulation of the telephone industry, real savings for consumers and advancements in technology resulted in many cases from nontraditional, entrepreneurial companies that were willing to take risks to gain a small share of a very large market.

***GL:* We have one of the lowest electricity rates in the nation with coal-fired utilities. Do you think the rates would increase by using natural gas-fired plants?**

WISE: I look at energy as being an energy basket using different fuels to fill the basket. I believe coal can provide the means to assure competition in the fuel market and keep the price low, but with coal comes higher costs initially in environmental protection and pollution control.

The advantage natural gas has is in the beginning. Now, there are other concerns with natural gas like adequate supply and transmission, for example. So, I think we can craft an energy policy that recognizes the inherent advantage of coal in terms of costs and also recognize that we have to develop the means to burn it cleanly.

The other thing we ought to be looking at are ways we can blend the two. There are some applications that when burning coal and natural gas together, you sharply reduce emissions more by just the amount of natural gas you are putting in the mix. Then you have a situation where you can retain high levels of coal production while reducing emissions. We ought to be willing to explore that.

***GL:* Is clean coal technology a major component of the task force?**

WISE: It is just one component, but I think it is a very important component. For a long time, those of us in the energy-producing states in the Midwest and Middle Atlantic have had differences with some of the northeast states on air quality issues. It is time to work together, both for our health, and for our economic future. We have common concerns about the air we share - and about our future energy needs.

Some people, particularly in the Northeast, say you can't have increased coal-fired power without greatly damaging the environment. I have always resisted that because I have trouble accepting the concept that what is produced at the John Amos power plant in Putnam County West Virginia is blowing 500-600 miles and causing somebody's environmental problems in New Jersey or Boston. If you get caught in a traffic jam in Boston, you can see why they have a smog problem.

However, on the other hand, as we try to sell more coal, we have to show power plants in other regions that they can burn the coal cleanly. So once again, clean coal becomes important.

LOGAN CORPORATION

KANAWHA STEEL & EQUIPMENT CO.
VALLEY AIR, INC.

NON-COMPLEX RENEWAL PARTS

PARTS FOR FRONT END LOADERS • DOZERS • TRUCKS AND GRADERS

Logan Corporation offers an innovative, expanding line of reverse engineered non-complex expendable parts for a wide range of OEM Mining and Construction Equipment. Each part is guaranteed to fit the original equipment. Parts for front end loaders, dozers, trucks and graders are our specialty.

- STEPS
- HANDRAILS
- CATWALKS
- GRILLS
- BUMPERS
- HOODS
- FENDERS
- LADDERS
- GUSSETS
- TOP RAILS
- GRAB IRON
- CAB GUARD
- TANK COVERS

"WE SUPPORT RESPONSIBLE MOUNTAINTOP MINING"

What exactly are non-complex renewal parts?

Items such as steps, handrails, catwalks, grills, bumpers, hoods, fenders and ladders, which frequently get damaged or destroyed during the normal course of operation and must be replaced. High quality parts, in many cases, have been enhanced to be better than the original. Parts that look good when installed as replacements on your equipment.

How does Logan's price compare?

Our selling price is far below the OEM's recommended selling price. Since the OEM probably did not manufacture this part in the first place and since the quality is as good, or better, the value is exceptional.

How can I get more information?

Your nearest Logan Dealer will send a representative to your site with samples for your inspection and to quote the best possible price and availability. Dealer inquiries welcome.

1-800-442-0134

OUR SELLING PRICE IS FAR BELOW THE ORIGINAL OEM'S!

GUARANTEED TO FIT THE ORIGINAL MANUFACTURER'S EQUIPMENT

PARTS FOR FRONT END LOADERS, DOZERS, TRUCKS AND GRADERS ARE OUR SPECIALTY.

HIGH QUALITY PARTS - ENHANCED TO BE BETTER THAN ORIGINAL!

TO PLACE AN ORDER, OR FOR ADDITIONAL INFORMATION CONTACT:

CHARLESTON BRANCH
3000 Sissonville, Drive
P.O. Box 3203
Charleston, WVA 25332
Phone: (304) 343-8801
1-800-340-8801
Fax: (304) 343-8817

PRESTONSBURG BRANCH
Rt. U.S. 321 North
P.O. Box 126
Prestonsburg, KY 41653
Phone: (606) 886-8123
1-800-844-8123
Fax: (606) 886-8627

HUNTINGTON BRANCH
555 West 7th Ave.
P.O. Box 58,
Huntington, WVA 25706
Phone: (304) 526-4750
1-800-669-1967
Fax: (304) 526-4777

CLARKSBURG BRANCH
212 N. Ohio Avenue
Box 1700
Clarksburg, WVA 26302
Phone (304) 623-5670
1-800-473-0110
Fax: (304) 623-5676

MIDDLESBORO BRANCH
200 U.S. Hwy. 25-E
P.O. Box 8
Middlesboro, KY 40965
Phone: (606) 248-2054
1-800-442-0134
Fax: (606) 248-2082

U.S. Senator Byrd has worked very hard to make sure there is adequate funding for clean coal and fossil fuel research. President Bush's energy plan improves funding of research in some areas of clean coal, but unfortunately, it cuts back in others.

We have to remember that in West Virginia we have the premier Federal Energy Lab, the National Energy Technology Lab in Morgantown. We should be partnering with that lab as well as WVU to do much of this research.

***GL:* The state's coal industry is in need of employees at all levels. What can the state do to assist with this urgent and long-term need?**

WISE: That is obviously a real problem because of the coal market being so cyclical. We've seen a lot of our experienced miners leave the area, leave the industry or retire and we don't have a lot of new and young workers to replace them.

The state can assist with Work Force Investment Act funds, job training, and working to develop the job training programs. This gets down to the question of "how can we get some stability in the coal industry?" Those who work in the coal industry need to know that if they make an investment of their time to become a trained miner, how long-term is it going to be for them? They need to know that if in three or four years OPEC releases oil and people forget what we went through, we may see those opportunities decline again. That's why it is so important to have a state and national energy policy. A national energy policy would recognize that you cannot turn coal on and off like water in a faucet. You have to have a policy in place that provides a return on investment over many years for those who invest in operations and those who invest their lives in working in the coal industry.

***GL:* What effects do you see from the recent decision by the 4th Circuit Court of Appeals, overturning Federal Judge Charles Haden, in the mountaintop/valleyfill case?**

WISE: In that situation we maintain the same position as the previous administration. The 4th Circuit has ruled jurisdiction was not in the Federal Court, but in the State Court. That didn't deal with the merits of the case, it dealt with where you can bring the case. We are continuing to issue permits because Judge Haden, when he made his decision two years ago, stayed his decision. One of the things we are working on at DEP is that Secretary Callaghan is looking at ways we can expedite permits. He is designing a permitting process so that within 72 hours a company will get a notice that the DEP has received their request.

***GL:* Do you see severance tax as an important source of revenue for the state's counties and municipalities?**

WISE: It has been historically and it is going to be so. That was part of the state legislative compromise years ago. The entire state would benefit from a portion of the severance tax. Sure, you can be in the eastern panhandle and get the benefit of the severance tax.

***GL:* That looks like that's all the time we have. Thank you for taking the time to talk about your visions and goals concerning the state's coal industry.**

WISE: I enjoyed it.

WVCA Publications

Coal Facts
Annual statistical guide

Green Lands
Quarterly magazine

West Virginia Coal Bell
Monthly tabloid newspaper

Membership Services Directory

West Virginia Coal Association
www.wvcoal.com
P.O. Box 3923, Charleston, WV 25339
(304) 346 5318 or (304) 342-4153
FAX 346-5310 or 342-7651

www.wvcoal.com

Awards Corner

Virginia Tech Honors WVCA Members

The College of Engineering at Virginia Tech honored three WVCA Members during its Alumni Banquet in Blacksburg, Va. on May 28th: **Steve Capelli** (right), *Pen Coal*, (left) and **Paul Goad** (bottom left), *AMVEST* receive distinguished Alumni Awards from **Dick Bolen**, *Anker Energy* who is chairman of the Industry Advisory Board to the Mining Engineering Department at Virginia Tech. Bottom right photo: **Jim Bunn** (left), *Kanawha Eagle*, is presented the Honorary Distinguished Alumnus Award from **Mike Karmis**, Virginia Tech.

Cecil I. Walker Machinery, Belle, received a "West Virginia Governor's Year 2001 Award for Excellence in Exporting" for its Used Parts Division recently. Walker, a heavy equipment dealer, has sold used parts for the past 20 years, but only within the last eight years has it tapped the world market.

"We ship to Australia, Singapore Indonesia, Israel, Italy England Africa, Mexico, Canada, and various South American counties," said **Steve Walker** company president. "Last year, 36 percent of our total used part sales were exported out of the country."

Walker, (second from right) explains some of its heavy equipment to local teachers during a tour of the facility.

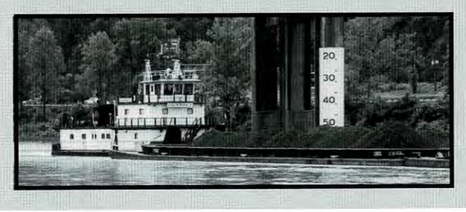
LEFT: Association Counsel **John McClaugherty**, managing member of Jackson & Kelly PLLC, recently received the Justitia Offium Award from the West Virginia University College of Law. He was recognized for "outstanding contribution and service to the legal profession," earning the highest honor the College of Law can bestow.

RIGHT: **Ben Greene** (right), Chairman of the West Virginia Coal Association, was recognized recently by the West Virginia University College of Agriculture, Forestry and Consumer Sciences with a Distinguished Alumnus Award for 2001. The award is presented each year to individuals who are graduates of the College and have distinguished themselves in a lifetime of work in their chosen career.

Presenting the award is **Dr. Jeff Skousen**, of the College of Agriculture, Forestry and Consumer Sciences who nominated Greene for the award.

Special Recognitions

Photo by G. Callihan



The "Lawson W. Hamilton, Jr." became a part of the Madison Coal & Supply's 30 boat fleet on May 21, 2001. The tug moves coal and other materials on the Kanawha, Ohio and Mississippi Rivers.

The boat was named in honor of Lawson because " he is one of the most generous people I know and it was time to recognize him," said Charlie Jones, president of Amherst Industries, parent company of Madison Coal.

(Left) Lawson, with his wife Jeanne, take a moment in front of the tugboat, the "Lawson W. Hamilton, Jr."

The bottom photo shows the first coal hauled by the Lawson W. Hamilton, Jr. on May 22, 2001, which carried 13,400 tons of coal to electric utilities on the Ohio and Mississippi Rivers.

The White Flame Coal Company staff, (l-r) Rachel Bundy, Peggy Mullins, Rhonda Ratliff, Teresa Thompson, Ann Haskins, Ella Nora Carmony, Alison Bussey, and Alyson Bundy take a break during a tour of the company's surface mine in Varney. Ella, assistant to the White Flame president, Don Nicewonder, will retire this year after working 36 years for Nicewonder.

Train *from page 23*

by gravity from the mines at the head of hollow to the river dock. Return power for empty coal cars was provided by mules and oxen.

The mines and railroad of WM&M ceased operation during the Civil War, and the company succumbed to receivership around 1881. The newly organized Winifrede Coal Company purchased the mines and recharted the railroad. Besides hauling coal, the railroad initiated passenger and mail trains in the late 1800's. A lean coal market forced the Winifrede Coal Company to close the mines and railroad until 1930 when the Winifrede Collieries Company purchased the properties.

From 1930 to 1955, the Winifrede Railroad operated with several former Chesapeake & Ohio 2-8-0-steam locomotives and one ex-Nickel Plate Road 2-8-2 engine. Following the merger of Winifrede Collieries with the Carbon Fuel Company in 1955, the railroad converted to diesel power with small General Electric 44-ton locomotives. The use of diesels was forced on the smaller railroad by the Chesapeake & Ohio, which began to phase-out its steam locomotive maintenance facilities at Handley, WV, where Winifrede sent its steam engines for monthly inspections as required by the government.

Carbon Fuel operated the railroad and mines into the '80s when a subsidiary of U.S. Steel assumed control of the operations. A slumping steel market and its corresponding effect on metallurgical coal sales forced U.S. Steel to again idle the mine and railroad in 1986.

Following the mines' closure by U.S. Steel, the reserves, prep plant, and river loading facility were sold to IT&T, which did not operate the property. In the late 1990's the property passed to the Penn Virginia Coal Company, that has leased the railroad to Kanawha Eagle Coal Company for the life of the Eagle Mine.

Rechartered as the Big Eagle Railroad, operations have once again resumed on this historic railroad line. Veteran Winifrede railroad engine No. 13, an EMD SW1500, now Big Eagle Railroad No. 1, shuttles back and forth between the mine and the river facility. A modified ALCO switcher, handles switching at the river barge loader, while a new track mobile moves cars around at the prep plant and loadout.

Thirty-two coal hoppers, some of which are rapid discharge cars, complete the railroad's roster.

MAGNETITE For Your PREP PLANT

SERVICE IS THE HEART OF OUR BUSINESS

Akers Supply, Inc.
Matewan, W. Va.
304/426-4422

Akers Magnetite, Inc.
Ceredo, W. Va.
304/453-2222

TRIANGLE
SURETY AGENCY, INC.

Specializing in:

▲ Coal Reclamation Bonds
▲ Self Insurance Bonds for Workers Compensation
▲ Financial Guarantee Bonds

Suite 970, One Valley Square • Charleston, West Virginia 25301

304-342-4989 or 1-800-551-4989

Investing in the Future

Throughout West Virginia, the coal industry quietly donates thousands of dollars in college scholarships every year to help students pursue higher education. Below are just several examples of scholarships awarded via the state's coal industry.

Erica Rome of Bridgeport High School, was awarded a $500 college scholarship during the Mountain State Coal Classic in January.

The National Football Foundation, West Virginia Chapter

For the second year, contributions from companies primarily working and supporting the coal industry awarded 11 student-athletes particpating in the North South All-Star Football Classic on June 23rd, $6,000 in college scholarships.

Recipients for 2001:	$500 Scholarships
North	**High School**
Heath Cook	Braxton
*Adam Lee	Hampshire
Mark Nesselroad	Morgantown
Wyatt O'Neal	Cameron
Jonathan Spencer	Ripley
South	
Steve Craffey	Valley
Justin Grogg	Wyoming
Brad McClung	Greenbrier West
Chuck Pauley	Nitro
Chris Porta	Herbert Hoover
Matt Edwards	Logan

*Simms Award winner receives $1,000.

Mountain State Coal Classic, Beckley, W.Va.

Sponsored by the WVCA, the Mountain State Coal Classic is organized and run by Bluestone Industries, Inc. Through much support from other companies in the coal industry, $175,000 in college scholarships has been awarded since its inception a dozen years ago.

Recipients for 2001:	BASKETBALL $500 SCHOLARSHIP	CHEERING $500 SCHOLARSHIP
BOYS CLASS AAA		
Woodrow Wilson	MikeRoss	Christy Zaferatos
Shady Spring	Sean Adkins	Meagan Stewart
Capitol	L. B. Booker	Amanda Hisson
Parkersburg	Noah Shepherd	Jenny Jennings
Westbury Christian	Stanley Asumnu	
Xaverian	Shaun Applebaum	
Oak Hill Academy	Rahsaad Carruth	Lindsey Baldassarre
Princeton	Matt Holt	Michelle Cofer
BOYS CLASS AA		
Oak Hill	Matt Boyd	Amber Bishop
Wyoming East	Kent McBride	Brandi Burgess
Bluefield	Jarrod Sudduth	Jessica Stamper
Winfield	Chris Dosier	Erica Crawford
BOYS CLASS A		
Charleston Catholic	Triston Freeman	Lauren Fulcher
Meadow Bridge	J. R. Livesay	Sarah Tolley
Valley High	Todd Ryan	Jenny McClure
Marsh Fork	A. J. Keith	Courtney Hollandsworth
GIRLS HIGH SCHOOL		
Nicholas County	Jessica Ferguson	Kristen Larrick
Woodrow Wilson	Angel Allen	
Summers County	Brandy Basham	Desiree Jones
Princeton	Lorin Albin	
Parkersburg South	Denise Miller	Chastity Logue
Bridgeport	Erica Rome	
Greenbrier East	Katie Kilcollin	Kelly Van Hoose
Shady Spring	Amber Smith	

Tug Valley Mining Institute

Tug Valley Mining Institute presents scholarships to outstanding students from Logan and Mingo counties in West Virginia and Pike and Martin counties in Kentucky. Since 1996, TVMI has awarded $54,000.

College Scholarship Winners		High School
Julie Ann Marcum	$4,000	Logan
Sarah Robinette	$4,000	Loagn
Kristin Pruitt	$500	Phelps
Brenessa Matney	$500	Phelps
Chad T. Webb	$500	Williamson

WVCA
Meeting Schedule

Jul 22-26 "Coal In The Classroom" Teachers Workshop, Elk River Travel Lodge, Charleston.

Aug 2-4 Annual Meeting, The Greenbrier, White Sulphur Springs.

Sep 24 Coal Foundation Golf Outing, Pete Dye Golf Club, Bridgeport.

Oct 5-7 Fall Meeting (VPI football game), Lakeview Scanticon, Morgantown.

West Virginia Coal Association
www.wvcoal.com
P.O. Box 3923, Charleston, WV 25339
(304) 346 5318 or (304) 342-4153
FAX 346-5310 or 342-7651

JMD
SINCE 1902

JOHNSTON-MOREHOUSE-DICKEY COMPANY

(304) 755-2800 FAX (304) 755-2899
2 McJunkin Road, Nitro, WV 25143

STABILIZATION SEPARATION & DRAINAGE PRODUCTS
Geotextiles • Geogrids • Geonets
Pit & Pond Liners • Composite Drainage Systems
Prefabricated Highway Base Drain • PVC & Polyethylene Pipe

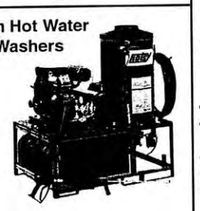
SEDIMENT & EROSION CONTROL PRODUCTS
Preassembled Silt Fence • Wood Excelsior Blankets
Jute Matting • Synthetic Matting • Straw Matting
Coconut Matting • Weed Barrier & Landscape Fabric
Mulch Netting • Staples • Grass Seed • Hydromulch

CONCRETE CURING PRODUCTS
Burlap • Polyethylene-Coated Burlap • Insulated Blankets
Polyethylene Highway Film

MISC. PRODUCTS
Safety & Landfill Fence • Gabions & Rockfall Mesh • Sand Bags
Pavement Waterproofing Membrane • Construction Film
Paving Fabric • Catch Basin & Sediment Filter Bags

hotsy Model 790
3.0 GPM @ 2000 PSI

2.2 GPM @ 1000 PSI
hotsy
550 Series

Engine Driven Hot Water Pressure Washers
1200 Series
16 hp Engine


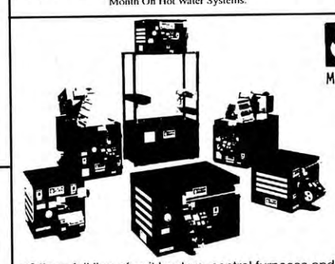
hotsy
America's No. 1 Cleaning System

TOLL FREE WV
1-800-369-4687
A Full Service Company For Over 26 Years

Hotsy
Equipment Company
Charleston
Clarksburg
Lexington, KY
Denver, NC

Lease Purchase Available on Credit Approval.
Hot & Cold Water Washer To 4000 PSI Competitively Priced For Best Dollar Value. Lease Payments As Low As Low As $97.00 Per Month On Hot Water Systems.

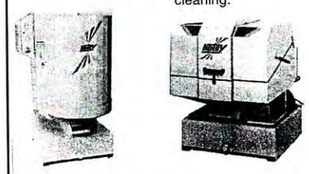
CALL FOR A FREE DEMO! WE SERVICE WHAT WE SELL!



CLEAN BURN
Multi-Oil Heating Systems
hotsy
CHARLESTON
1-800-369-4687
CLARKSBURG
1-800-583-7121

• Offer a full line of unit heaters, central furnaces and cast iron boilers
• Build a used-oil heating system from the ground up-not simply converting a fuel-oil furnace or burner
• Endorsed by General Motors
• Provide the largest, factory-trained dealer network in the industry
• The overwhelming market share leader

hotsy
Full Line Of Cold Water Washers
We have a full range of pressure washers • hot & cold to 3000 PSI • on site service • full inventory of parts • full line of EPA approved detergents • all sizes of automated parts washers • oil water seperators • EPA approved

Automatic Parts Washers
Environmentally friendly hot water cleaning.


Coal Calendar 2001

August

2-4 West Virginia Coal Association, Inc. Annual Meeting, The Greenbrier, White Sulfur Springs, WV. Contact Patty Bruce (304) 346-5318.

7-10 10th Annual Minerals Education Conference, Lexington, KY. Contact Geaunita Caylor, (859) 257-2820.

16 Tug Valley Mining Institute Meeting, Brass Tree Restaurant, Williamson, WV.

22-24 62nd Annual Kentucky Mining Institute Meeting, Allen, KY. Contact Geaunita Caylor, (859) 257-2820.

September

6 Kanawha Valley Mining Institute Meeting, Charleston House Holiday Inn, Charleston, WV. Contact Jim Corsaro (304) 949-5630.

7 Kentucky Professional Engineers in Mining Seminar, Lexington, KY. Contact Geaunita Caylor, (859) 257-2820.

12-14 The Bluefield Coal Show, Brushfork Armory-Civic Center, Bluefield, WV. Contact the Bluefield Chamber of Commerce (304) 325-3085.

24 Coal Foundation Fall Golf Outing, Pete Dye Golf Course, Clarksburg, WV. Contact Patty Bruce (304) 346-5318.

25-26, Underground Mining Equipment Operations Workshop, Pittsburgh, PA. Contact Dianne Taylor, (202) 463-2607.

October

4 Kanawha Valley Mining Institute Meeting, Charleston House Holiday Inn, Charleston, WV. Contact Jim Corsaro (304) 949-5630.

5-7 West Virginia Coal Association, Inc. Membership Meeting, Lakeview, Morgantown, WV (Virginia Tech vs. WVU). Contact Patty or Sandi (304) 346-5318.

11-12 26th Mineral Law Conference, University Kentucky College of Law, Lexington, KY. Contact Sharon Daniels.

11-13 Kentucky Coal Association Annual Membership Meeting, Marriott Griffin Gate Resort, Lexington, KY. Contact Bill Caylor, (606) 859-4743.

Acid Mine Drainage Treatment Costs with Calcium Oxide and the Aquafix Machine

By: Jeff Skousen and Mike Jenkins

Editor's note: This paper is an update of a 1993 article in Green Lands 23:36-38.

Introduction

Mary Ruth Corporation was formed in 1955 by Milford Jenkins. Mary Ruth has operated surface and deep mine operations in northern West Virginia and Maryland for the past 38 years. In 1972, Mike Jenkins began working with his father in the business. During the 1970's, Mary Ruth operated as many as seven active mines and a coal preparation plant employing nearly 100 people.

Acid Mine Drainage

Several of Mary Ruth's surface mining operations were in the Upper Freeport seam of coal in Preston County, which often produces acid mine drainage (AMD) upon disturbance. Some of these sites required constant water treatment. In the late 1970's, caustic soda was most often used to treat water, but with time it became too costly to use.

Hydrated lime was substituted for caustic soda wherever possible. Lime was much cheaper to use, but application of the lime required a pump to circulate the pond, plus a man to feed lime slowly to the pump for mixing. These two factors made the use of lime very labor intensive and too costly. Also, about 50% of the lime that was applied did not dissolve and ended up on the bottom of the pond in spite of mixing. If the labor costs and the slow reaction problem could be reduced or eliminated, treating AMD with hydrated lime would reduce chemical treatment costs by 50 to 80%.

Aquafix Machine

As time went on, it became obvious that if hydrated lime could be introduced to the pond slowly and continuously, treatment of the water could be controlled and water quality could be enhanced. Close to 95% of Mary Ruth's sites where AMD treatment was needed had no power to operate any kind of feeder or mixing system. So, Mike decided to use a "water wheel' concept, which could be driven by the flowing water itself. Through the efforts of Darwin Ringer (Mary Ruth's first employee in 1955), Robbin Ringer, and Milford and Mike Jenkins, the first water-powered lime feeder was built in 1980.

Hydrated lime was initially used in the machine, but even with several modifications over time, the hydrated lime did not feed continuously without bridging and plugging the hopper. After approximately one year of working with this original machine, Mary Ruth's water problems lessened and so the "water wheel' machine was placed behind the shop to collect rust.

In 1989, Mary Ruth resumed water treatment. The rusted old lime feeder was dragged out from behind the shop and a pelletized lime material was sought to use in the machine. Pelletized hydrated lime was unavailable, but a pelletized calcium oxide product was (pebble quicklime). The pebble quicklime material was loaded in the hopper of the "water wheel' and it fed continually, solving the bridging and plugging problems in the hopper.

Quicklime is highly reactive, economical, easy to handle in 50-pound bags (or quicklime can be bought in bulk if necessary) and feeds without sticking. Water pH is rapidly raised to about 9.0, and metals in the water precipitate in settling ponds. In addition, the AMD sludge generated with quicklime is denser and precipitates quicker than caustic-generated AMD sludge.

Application of pelleted quicklime to AMD with the water wheel requires a 75- to 150-foot ditch or channel where the quicklime can disperse on the bottom of the channel. Here, the quicklime continues to dissolve over time providing a slight buffer for higher flows.

Since 1991, the Jenkins' have been manufacturing and selling the Aquafix Machine to coal, metal, clay, and sand mining companies. In 1993, they made the first small version of the Aquafix Machine for sites that need very little treatment. It holds only 500 pounds of quicklime (while the normal-sized machine holds about 2000 pounds of quicklime) and can be moved and set up by hand with three or four people.

In 1994, the Aquafix machine fed quicklime so uniformly that silos were placed over the machine to feed into high flow AMD treatment situations. The machine can be bolted to a free standing silo of any size where a large quantity of lime is needed or where the customer would like to use bulk lime deliveries. In 1998, the silo machines were changed so they could also be used with a powder form of material such as kiln dust.

In 1994 and 1995, the U.S. Department of Energy conducted a test with an aquafix machine at the Crystal underground copper mine at Butte, Montana. In 2000, EPA tested one of the machines at the Summitville Mine in southern Colorado.

As of 2001, 86 normal-sized, 59 small-sized, and 14 silo machines were in use. Machines can be found in western U.S. states (Colorado and Montana) southern states (Arkansas, Louisiana and Missouri), and throughout the east (Illinois, Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia).

The newest innovation is the use of a mixing unit, which will eliminate the need for a rock-lined ditch. Other companies have produced a similar water-wheel system that slurries the lime before application. The results of preliminary field tests have shown a 30 to 50% reduction in lime usage and virtually no undissolved lime was entering the pond with these slurry systems.

Cost of Chemical Treatment in 1993

To estimate the potential treatment cost of using pelleted quicklime on your site, it is known that two pounds of quicklime (CaO) neutralizes the same acidity as one gallon of 20% caustic soda (NaOH), or one pound of ammonia. Based on 1993 prices, chemical costs were 6 cents per pound ($120 per ton) for quicklime, 60 cents per gallon for 20% caustic, and 25 cents per pound ($500 per ton) for ammonia.

In 1993, one operator calculated the Aquafix unit paid for itself in less than a year. Caustic soda was used previously on the site to treat an average flow of 25 gpm and 1100 mg/L of acidity at a cost of $245 per day, or

about $80,000 per year. With the Aquafix System, the same water was treated at a cost of about $75 per day, or about $28,000 per year, a cost savings of about 65%. Similar cost savings were found on several sites we surveyed in 1993.

Cost of Chemical Treatment in 2001

Another way of comparing treatment costs is based on the cost to treat 1000 gallons of water. At one AMD treatment site in northern West Virginia, the cost for treating 1000 gallons of this particular AMD was $1.40 using ammonia, while the cost for quicklime was $0.53. This represents about a 62% cost savings. In addition, the treated water generated about 45% less sludge using quicklime compared to ammonia. The problem at this site with using quicklime was that the short channels did not allow suitable mixing and channel lining for optimal treatment.

At a site in southern West Virginia, 1,000 gallons of AMD were treated at a cost of $0.69 using caustic soda (cost of 20% caustic was $0.43 per gallon), while this same amount of AMD was treated at a cost of $0.11 using quicklime (cost of quicklime was $100 per ton). The flow was around 250 gpm, so annual treatment costs were reduced from $87,000 using caustic to $14,000 using quicklime (84% cost reduction).

In Clay County, a 25-gpm flow of AMD was treated for $5,369 per year using 20% caustic, $2,328 using ammonia, and $1,534 using quicklime. Again, the cost savings were 71% with quicklime over caustic, and 34% with quicklime over ammonia.

Three of the four lime dosing machines used by the Maryland Bureau of Mines are Aquafix machines, and silos have been installed over the water wheel. The major advantages of using the Aquafix machines in Maryland are: 1) the ability to dose large quantities of alkaline material during high flows and small quantities during low flows, and 2) the ability to dispense various materials such as pebble quicklime or kiln dust as a powder and larger-sized, alkaline sand materials. The versatility of using different materials has been very beneficial in cost savings at these sites.

In Maryland, the Aquafix machines treat an average of 4,000 gpm of water, and has returned the North Branch of the Potomac River back to a fishable waterway. The dosing has also neutralized the AMD in Jennings Randolph Lake. The original pH 5 water discharged from the spillway at the dam has been increased to pH 7 or above since the installation of the lime dosers. Cost for treating this water is about $50,000 per year, or a little more than $0.02 per 1,000 gallons of water.

Conclusion

On sites where quicklime is used in place of caustic soda or ammonia, for treating AMD, the cost savings have ranged between 30 to 80%. The Aquafix system may not be suitable for every site because of site constraints, water flows, or water chemistry, but in general, at most sites, the use of the Aquafix machine with quicklime has demonstrated efficient and cost effective treatment.

Acknowledgments

Thanks are expressed to Tiff Hilton, Ed Lyons, and Ted Wall for water quality and treatment cost data, as well as pictures for this article.

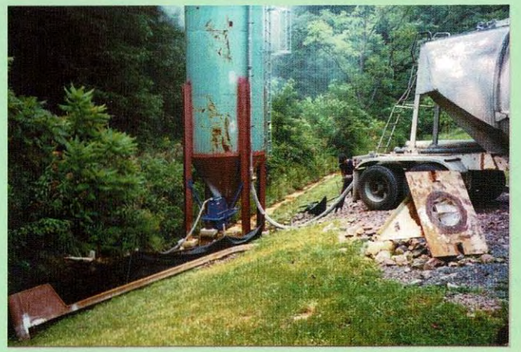
Picture 1. Aquafix machines are installed by placing the machine over a ditch or small stream and allowing a small amount of water to turn the water wheel. The water wheel turns an auger in the bottom of the hopper, which then dispenses the chemical into the water flowing beneath the machine.

Picture 2. Aquafix machines also come in a small size. This machine was installed to temporarily treat a small AMD flow in Missouri where the company is repairing a constructed wetland.

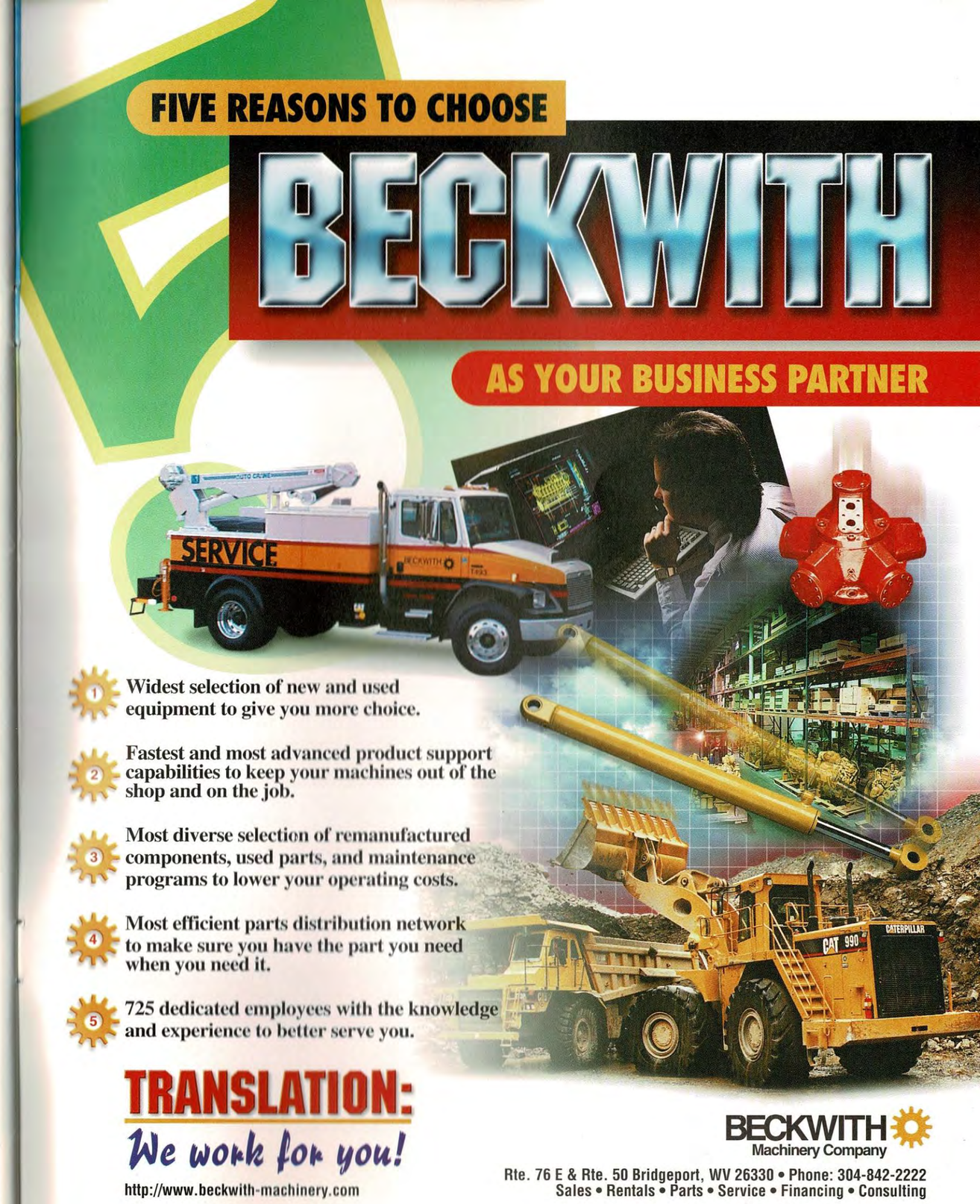
Picture 3. This Aquafix machine was installed to treat AMD at a copper mine in Summittville, Colorado.

Picture 4. AMD from a refuse pile near Summersville, West Virginia is being treated by the Aquafix machine.

Picture 5. A silo was placed over the Aquafix machine by the Maryland Bureau of Mines at Kitzmiller.



Picture 6. A large silo was also placed over this machine in northern West Virginia.

ADVERTISING INDEX

Company	Page	Website
Akers Supply	41	
Anderson Equipment	12	www.andersonequip.com
Artistic Promotions	24	www.artisticpromos.com
Beckwith Machinery	Inside Back Cover	www.bmcoi.com
Bell Farms Reclamation Service	14	
The Brier Patch Golf Links	4	
Carter Machinery	19	www.cartermachinery.com
City Insurance	8	www.cityinsure.org
Cobre Tire	18	
Daniels Law Firm	25	
Eagle Carbon	14	
The Greenbrier	5	www.greenbrier.com
Heavy Machines	1	www.heavymachines.com
Hotsy Equipment	44	
JMD	44	
Kimberly Industries	32	
Logan Corporation	36	www.logancorp.com
Massie Reclamation	16	
Petroleum Products	9	www.petroleumproductsinc.com
Rish Equipment	Back cover	www.rish.com
Rudd Equipment	Inside Front Cover	www.ruddequip.com
Triangle Surety Agency	41	
Vecellio & Grogan	9	www.vecelliogrogan.com
Cecil I. Walker Machinery	26	www.walker-cat.com