

# COAL FACTS

A Publication of The West Virginia Coal Association

2013



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## *From the President's desk*

# THE STATE OF COAL

**F**or West Virginians, coal mining is as much a part of our lives as the blood in our veins. Many of us grew up in towns with names like Covell, Coalwood, or Coalton or maybe it was along the banks of the Coal River. The memories of those



days in those coal camps are so vivid and positive. There was the strongest of camaraderie among the neighbors and children, not found anywhere else. It formed our optimistic attitude and our dedication to equality and the Golden Rule. It made us proud. Wherever it was, you can be sure the local mine was probably the centerpiece of the community's life — of your family's life.

Many of our miners have followed their fathers and grandfathers and even great-grandfathers into the mines — proud to carry “papaw's dinner bucket” with them as they went. Coal mining is

the tie that binds our generations. It is our heritage and has shaped our culture.

For the past decade, we have used the “Coal is West Virginia” jingle in our radio spots, but it is far more than a radio jingle. It reflects a very basic reality — West Virginia and coal mining are almost synonymous. It is simply who we are — whether we actually work in the coal mines today or walk the halls of the State Capitol, whether we drive a coal truck on a surface mine or teach at the local high school, we share in that heritage.

A West Virginia coal miner's job has never been easy, but they have always taken a quiet pride in that. We have always thought of ourselves as just a little special. And we should. After all, it was through their work and that of our parents before us that built our nation's economy. Our coal made the steel that built our railroads, our cars and the skyscrapers of Manhattan. Our coal is a basic feedstock of our nation's chemical industry and it has provided us with cheap, reliable electricity for the past 100 years. Not only does our coal make the steel and “keep the lights on ...” we turned them on in the first place.

We look around at what our nation has become and we can say with pride ... “WE BUILT THIS.”

We have been there for our nation in times of peace and we have been the industrial backbone of our nation in times of war. Our coal has been used to build the ships and tanks and planes that have made our military second to none, have won our wars and afforded our soldiers, sailors and airmen the greatest protection possible. We are doing that today with our surface mines being reclaimed and used as training areas for the military as part of the Joint Base West Virginia complex.

Our parents and grandparents were proud and we are equally proud today.

When other industries stood in line for government assistance, we were mining coal. We have never asked for anything more than the right to do our jobs and provide for our families.

We are proud of our heritage ... we wear it as a badge of honor.

Those orange mining stripes identify our people, miners, managers and suppliers alike, as members of the family of coal — a family as tightly knit as any bound by blood.

Yes, there are occasional disagreements. There is with any family. But when our family is threatened, when tragedies occur, we come together to defend our people, protect our way of life, comfort those who grieve and overcome whatever problems may arise.

We stand together on the foundation laid by the generations who came before us ... determined to make sure the lives of future generations' are just that much better than our own. We stand together to build a future for ourselves, our children and our grandchildren. We owe them no less than what our parents gave us — bedrock of the nation's economy — the lowest cost, most dependable form of energy available. We believe in our people and we want to keep them in West Virginia — they are the best in the world. But, that is becoming more difficult as people in our industry have come under attack by our own government.

For the past five years a storm was brewing just over the horizon. We warned people to board up the windows and get ready, but few people listened.

Why should they? Coal severance taxes reached an all-time high last year — \$1/2 billion. We were actually hiring new coal miners.

The storm wasn't really there, they said, it was just coal industry spin.

But for those who looked a little deeper, the storm's effects were more evident — mine production has dropped by 22 percent since 2008 — from 165 million tons to 129 million tons last year. Permit clocks were ticking as more and more operations came to the end of their ability to modify existing plans and new permits were not forthcoming.

The storm finally came ashore earlier this year with layoffs and mine idlings.

There is still time to prevent the damage. West Virginia coal is still sought the world over for both the generation of electricity and the making of steel. In fact, exports of coal has been one of the things that has helped keep our people working. Our coal still provides the most dependable, lowest cost fuel for electricity generation. Yes, at the moment, natural gas prices are lower in comparison, but most analysts say the current prices of natural gas are unsustainable and the actual sustainable price level of natural gas is predicted to be higher than the price per million btu of coal.

So this storm, quite simply, was created in Washington, D.C., and it must be solved in Washington, DC. An out of control federal agency began a war on coal and it is up to Congress to bring it to an end, once and for all.

Right now, sitting in the Senate, is a package of bills that, if passed, will make it almost impossible for the EPA to continue its assault on West Virginia and Appalachian coal mining families. We urge you to let Senators Rockefeller and Manchin know you want them to end the administration's war on coal.

Our future depends on it.

*Bill*

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# As Goes Coal So Goes West Virginia

BY CHRIS HAMILTON

Senior Vice President, West Virginia Coal Association

Coal plays a significant role in our state and across the country, and despite the challenges at home, West Virginia stands to be a global energy leader.

Coal long has been one of the West Virginia's leading industries. For decades, it has been providing thousands of good-paying



jobs, infusing millions of dollars into local and state economies and providing low-cost electricity for its industries and residents.

Presently, due to a variety of factors ranging from mild weather patterns,

an abundance of inexpensive shale gas, a declining reserve base and unprecedented over-regulation has caused West Virginia recently to experience a loss of coal markets and a decrease in coal production.

I include over-regulation in the factors that have contributed to a decline in coal production because let me assure you, the "War on Coal" is real. It has and will continue to hurt the industry and the thousands of families who rely on coal mining to survive. This misguided assault on coal will continue to have negative effects on West Virginia.

The industry is attempting to weather one of the fiercest political assaults that any American industry has ever experienced. But, we'll survive, and continue to be a big part of West Virginia's economy.

## Coal Severance Boosts Budget

Never before in the state's history has the coal industry been responsible for a greater share of state tax revenues or prosperity throughout all facets of state and local governments.

According to a report by the West Virginia University and Marshall University business research facilities, the coal industry provides more than \$3.4 billion in wages and a total economic impact of \$26 billion for the state each year.

As a result of significant and sustained increases in coal severance and other business taxes, the state has been one of a few states to have balanced budgets during the current recession years from 2008 to today. West Virginia's "Rainy Day" has climbed to unprecedented levels because of annual budget surpluses that have been driven in large part by coal severance tax revenues.

West Virginia's coal severance tax is levied based on the sale price of coal, so naturally those revenues reflect strong market pricing. But, even with the current downturn, coal

severance collections have more than doubled from 2007 to 2012 to an all-time record high of \$500 million last year. Property and income taxes from coal have made similar gains during this period. Even with current losses and predictions of downward adjustments in collections, overall taxes from coal remain higher than ever before.

In addition to severance tax revenues, coal and electric utilities account for over 60 percent of all business taxes. Coal severance dollars are distributed to all 55 counties, which in turn fund education and social programs – and that's after the first \$22 million goes to infrastructure projects.

Clearly, the positive impact coal has on West Virginia's economy is well-demonstrated and undeniable.

Moving beyond state borders, we believe coal will continue to play an important role in our country's energy mix for decades to come. And we further believe coal will remain viable throughout the world. It continues to be the largest source of electric power generation among all fuels – over 90 percent in West Virginia and 40 percent in the United States. Domestic and world electric demand and steel production continues to grow – and these demands cannot be met without coal.

Today, as an industry, our role is critically important to our nation's quest to become energy independent and break that unholy grip of our dependence on foreign oil. Coal holds the key to our country's ability to become energy independent, secure our borders and bolster our nation's defense system. Renewable fuel sources have a role to play, but they cannot do what coal does. They cannot power America 24 hours a day, seven days a week, rain or shine. And they don't produce steel! Those who claim otherwise are simply uninformed, or have some other agenda to promote.

## Preparing for Growth Overseas

Without question, coal use will increase around the world. In fact it is already happening.

Gov. Earl Ray Tomblin recently announced that for the third consecutive year West Virginia exports reached a record level, in 2012 – the growth led by coal exports. In just one year, coal exports grew 40 percent, increasing from \$5.3 billion in 2011 to \$7.4 billion in 2012. West Virginia coal accounted for 49 percent of U.S. coal exports in 2012.

Sea borne coal tonnage will grow over the next five to seven years, and we have to position ourselves to capitalize on that opportunity by cutting costs, becoming more efficient, influencing public policy and becoming more involved in the politics of the industry.

In fact, coal is predicted to surpass oil as the world's energy of choice by 2017 according to the International Energy Agency.

China, India, Africa and other growing regions are using more coal. Why? A

big reason is because steel production is up worldwide, and you cannot make steel without coal. This growth is driving increases in metallurgical coal supplies into developing countries. These nations are growing and consuming steel in developing their basic infrastructure. That work requires more power. More steel plus more power means more coal — it's a simple equation.

Other nations see coal the way America used to view this resource, as an abundant, low-cost and reliable fuel. America became a manufacturing superpower thanks to coal, and it can't be a coincidence that our global domination waned when we stopped fostering coal industry development.

Thankfully, other nations are not making this mistake. West Virginia is the epicenter of the coal industry, so the opportunity is ripe for us not only to satisfy our domestic energy needs but to capitalize on rising worldwide coal demand.

## Seizing the Opportunity

The United States will continue to use coal for years. That is a fact borne out by basic base-load power demands. And globally, coal use will continue to grow. The real questions today are where the coal will come from and who will benefit from the mining jobs and production revenues. Will it be West Virginia or somewhere else? There is no valid reason that it shouldn't be West Virginia!

West Virginia's coal industry is well-situated to meet the demands of tomorrow, but not without overcoming major challenges on the horizon. The industry has great capacity, committed management, aggressive business plans, a qualified, experienced workforce and a strong will to succeed.

As a state, we have the potential to become the nation's center for energy and commerce. We have it here if we can compete effectively and sustain our presence in domestic and world markets. We have that opportunity now — if we approach it correctly — with reason, intelligence and common sense.

## Challenges Remain

Now, the reality: The coal industry is being attacked on many fronts today by government and special interests. These attacks have been well documented. And although the industry has always had its share of challenges, never have they been as serious or threatening as they are today.

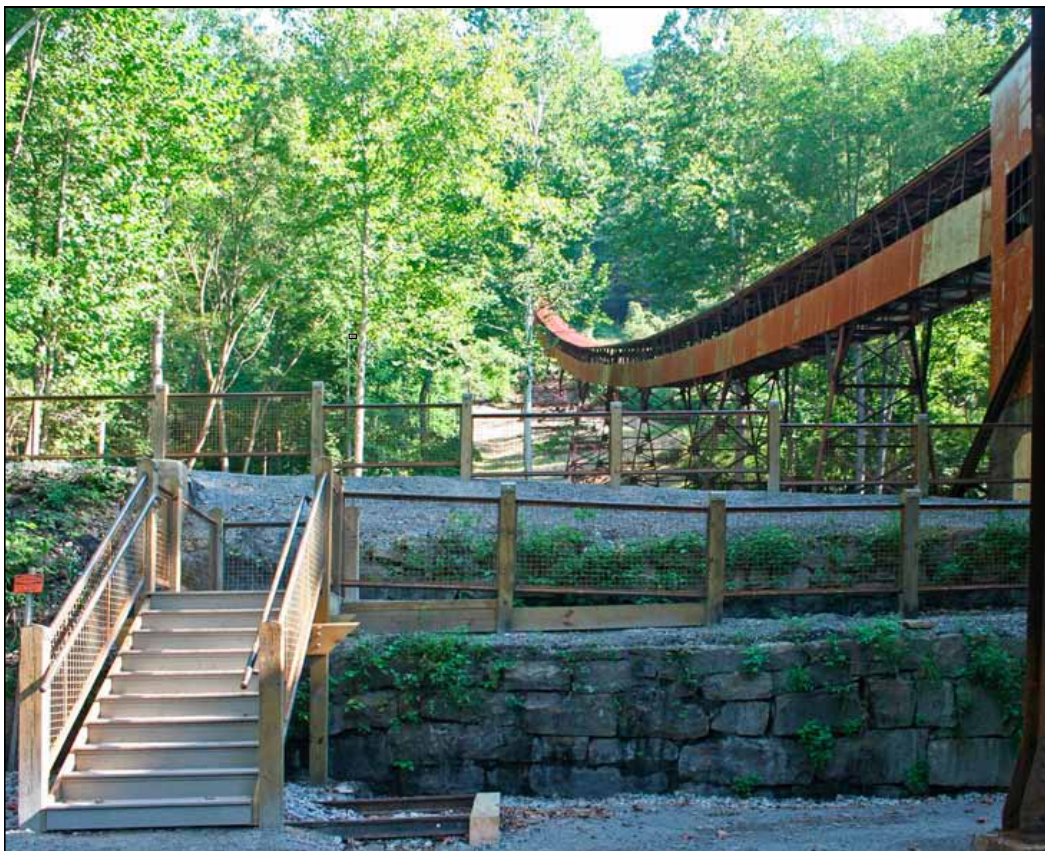
To name a few:

- Carbon tax
- Global climate change;
- Cap and Trade legislation;
- Increased renewable portfolio;
- Lack of meaningful national energy policy (including coal-to-liquids technology development and commercialization);
- EPA's multi-pronged regulatory assault on Appalachian coal;

See "AS GOES COAL" Page 11

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## Landscape Architecture

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**Jackson, OH**  
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**Charleston, WV (Belle)**  
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*We Are ... West Virginia!*

*We Are ... West Virginia Coal!*

## *Have You Ever Wondered Just Who are the Friends of Coal?*

# The Friends of Coal: Speaking with One Voice

**“So what exactly is the “Friends of Coal?”**

Well, Friends of Coal got its start in 2002 as a grass roots organization of people across West Virginia who wanted some way to show their support for the state’s leading industry – coal mining – and the tens of thousands of jobs it provides. Today, just 12 years later, the organization has spread out across the country, with members in West Virginia, Kentucky, Virginia, Ohio, Pennsylvania, North Carolina, Wyoming, Tennessee and other states. You see the now familiar logo – the blue and black Friends of Coal swoosh – on cars from Florida to Alaska, from California to Maine.

That logo is on helmets, license plates, and the back windows of a pickup trucks. It’s on lunch boxes, shirts, yard signs, pens, pencils and football games. It’s on every state championship trophy given out by the West Virginia Secondary Schools Athletic Commission, race cars, boats and even rubber coal. You hear the jingle ... “Coal is West Virginia...” on radio stations, in stadiums and televisions across the state.

Friends of Coal has grown to include a thriving Ladies Auxiliary, sponsored events like the Friends of Coal Auto Fair, the Friends of Coal Relays and other events. We have spawned other groups like Citizens for Coal, the Logan Coal Vendors Association, Remember the Miners and Friends and Families for Miners. Each of these groups maintains their independence but we are tied together as a single family — the family of coal. We work together for a common purpose — defending the jobs of our state’s working coal miners and their families.

Today, the Friends of Coal has spread to almost 50,000 people, with members in almost every state and several foreign countries.

Friends of Coal is no longer “just a name”

but has morphed into an army of coal miners, their families, friends, neighbors, local and state business leaders, elected officials, doctors, lawyers, teachers, pizza delivery guys and students, taking the message of coal to the people.

That message is simple: Coal mining is vital to West Virginia and to our nation.

When Friends of Coal started in 2002, research indicated that a little more than 45 percent of West Virginia’s people expressed support for the industry. Today, that number has moved well past 70 percent. The credit for that success belongs to each and every one of you who has taken the time to become a member. The credit also belongs to the tens of thousands who visit our web pages and come to our events.

For the past five years our industry has been under attack like no other time in our history. The Obama Administration, through its regulatory agencies has waged a war against coal — against coal mining, against coal transportation and against the use of coal to power our economy. Where would we be without the support of our coal mining family? Would they hear our message as loudly in Charleston and Washington?

2012 has been an especially difficult year – the combined effects of the Obama regulatory war, the glut of natural gas in the marketplace and the unseasonably mild winter of 2012, has combined to become a “perfect storm” – leading to the loss of more than 2,000 jobs, approximately 10 percent of our direct workforce.

It’s frequently noted that every coal mining job creates another five to eight jobs somewhere in the economy.

Anyone who has ever visited a coal mining community in West Virginia would have no hesitation in believing that statistic. It is likely no other state and industry are as closely iden-

tified as West Virginia and coal.

Friends of Coal is based on the simple premise West Virginia is full of people who understand and appreciate the value and the importance of coal to the Mountain State and its people.

These people have always been around, but they have never before been asked to demonstrate just how many West Virginians are directly and indirectly involved with the coal industry.

Friends of Coal also was born out of a desire to correct the impression that coal’s time has passed in West Virginia.

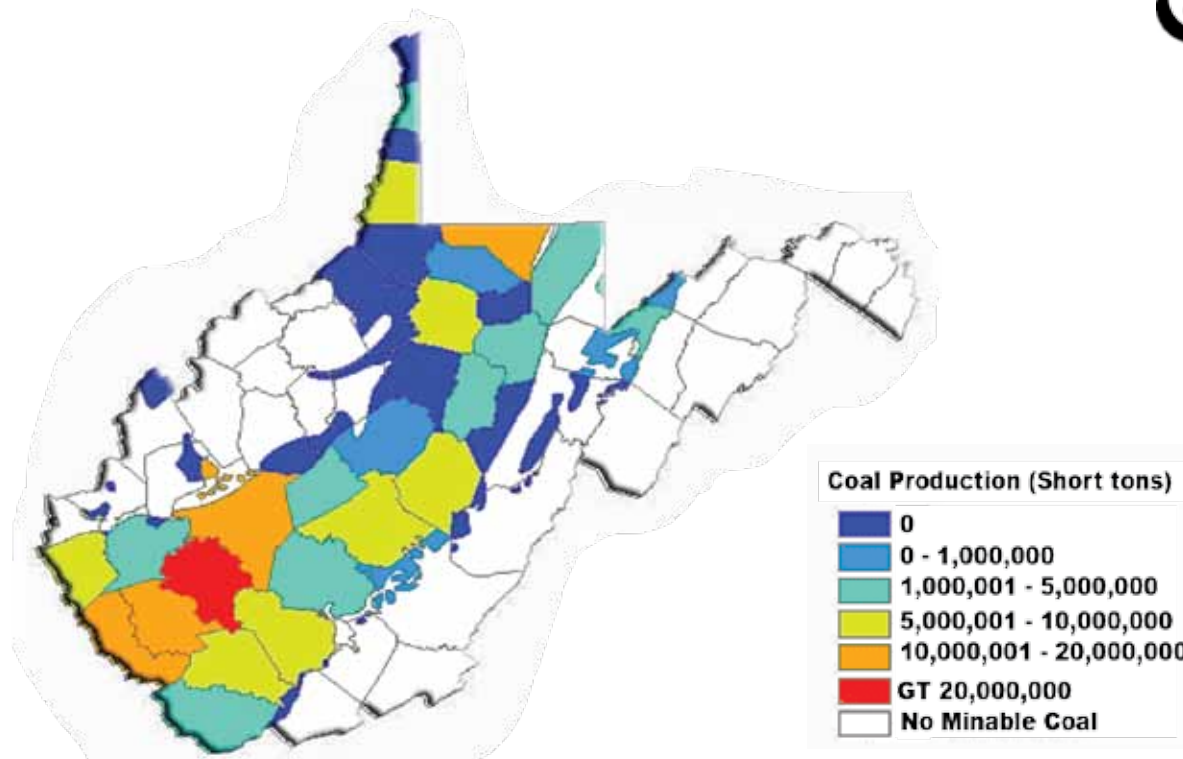
Coal supplies about 40 percent of this country’s electrical power demand, and West Virginia is the nation’s second largest coal producer. There is no danger that demand for energy will cease.

West Virginia’s greatest advantages have always been the quality of its coal, its relative proximity to the markets and most important, its hard-working, highly skilled and productive workforce.

As the industry streamlines and adapts to meet our challenges, it is increasingly important the Friends - the FAMILY - of Coal in West Virginia unites to speak with one voice. Friends of Coal will continue to clearly demonstrate that coal must be a major consideration in the establishment of public policy in the state and in the nation.

For more information, visit the Friends of Coal website at [www.friendsofcoal.org](http://www.friendsofcoal.org), or visit us at Friends of Coal – West Virginia on Facebook. And, if you haven’t already done so, take a moment and fill out an application for our Friends of Coal official state license plate, which is also available at the Friends of Coal website.

Let the world know you are a Friend of Coal. ♦



## West Virginia Coal Facts at a Glance

Sources: Energy Information Agency Data and West Virginia Office of Miners' Health and Safety (expressed in short tons) All values expressed in tons except for dollar figures and employment. Discrepancies in the data are due to different reporting standards from the sources (eg. number of mines).

<b>Total Production</b> .....	<b>129,107,370</b>	<b>Coal Severance Tax</b> .....	<b>\$490,000,000</b>
Underground .....	89,210,479	<b>Leading Coal Producing County</b>	
Surface .....	39,896,891	Total Tonnage - Marshall .....	17,154,805
<b>Coal Companies Operating in WV</b> .....	<b>320</b>	Underground - Marshall .....	17,084,842
Number of Mines .....	538	Surface - Boone .....	7,210,187
Underground .....	292	<b>Highest Employment by County - Boone</b> .....	<b>3,495</b>
Surface .....	246	<b>County With Most Coal Reserves - Boone</b> .....	<b>3,589,414,636</b>
<b>Record Production Year - 1997</b> .....	<b>181,914,000</b>	<b>Largest Underground Mine</b>	
<b>Recoverable Coal Reserves</b> .....	<b>51,193,265,265</b>	McElroy Mine (Consol) .....	9,400,486
<b>West Virginia Coal Employment</b> .....	<b>26,619</b>	<b>Largest Surface Mine</b>	
Underground .....	16,868	Holden 22 Surface (Arch Coal) .....	3,064,762
Surface .....	5,501	<b>Largest Mine Employment</b>	
Coal Handling Facilities .....	2,150	McElroy Mine, McElroy Coal Co. ....	991
Contractors (est.) .....	2,100	<b>Largest Producing Mining Method</b>	
<b>Transportation (tons)</b>		Underground .....	89,210,479
Rail .....	55,626,201	<b>Largest Producing Coal Seam</b>	
River .....	12,975,761	Pittsburgh .....	40,096,020
Truck .....	30,296,788		
<b>Estimated Average Annual Coal Wage</b> .....	<b>\$68,500</b>		
<b>Estimated Production Value 2012</b> .....	<b>\$7,746,422,200</b>		

## Key Contacts



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West Virginia Coal Association  
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WV Department of Environmental Protection  
Phone (304) 926-0440  
FAX (304) 926-0446  
www.dep.state.wv.us



Office of Surface Mining - Charleston  
Phone (304) 347-7162  
FAX (304) 347-7170  
www.osmre.gov



# U.S. Coal Facts at a Glance

<b>Total Production - 2012</b> .....	<b>1,016,399,000</b>
Underground .....	345,606,000
Surface .....	748,372,000
East .....	293,111,000
West .....	542,673,000
Interior .....	179,343,000
Refuse Recovery (included in total) .....	1,272,000
<b>Number of Mines - 2012</b> .....	<b>1,797</b>
Underground .....	735
Surface .....	1,033

<b>Employment - 2012</b> .....	<b>91,611</b>
Underground .....	54,395
Surface .....	37,087
<b>Recoverable Reserves - 2012</b> .....	<b>485,769,101,000</b>
<b>Leading Coal Producers - 2012 (millions of tons)</b>	
Peabody Energy Corp. ....	202.2
Arch Coal, Inc. ....	160.2
Alpha Natural Resources .....	116.4
Cloud Peak Energy .....	95.6
CONSOL Energy .....	62.1

Source: U.S. Energy Information Administration, Quarterly Coal Report. October-December 2011 (April 2012), preliminary 2011 data. Production does not include refuse recovery.

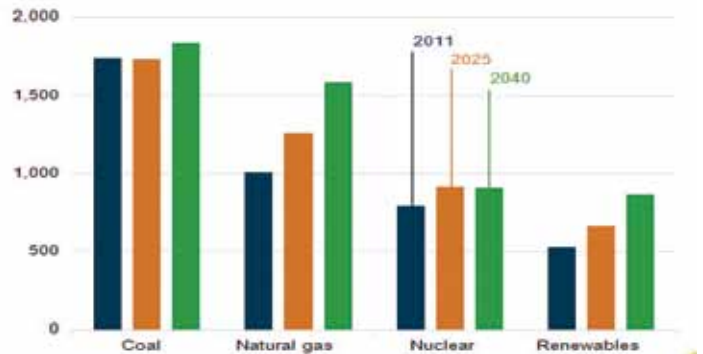
## 2012 Coal Production by Region

Million Short Tons (percent change from 2011)



## Electricity Generation by Fuel through 2040

Billion Kilowatt Hours



Source: Energy Information Administration, Annual Energy Review 1999. DOE/EIA-0384(99) (Washington, DC, July 2000). Projections: Figure 76.

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# County by County Ranking - 2012

DIRECT EMPLOYMENT		UNDERGROUND TONNAGE		SURFACE TONNAGE		TOTAL TONNAGE	
COUNTY	EMPLOYEES	COUNTY	TONNAGE	COUNTY	TONNAGE	COUNTY	TONNAGE
BOONE	3,495	MARSHALL	17,154,805	BOONE	7,210,187	MARSHALL	17,154,805
RALEIGH	2,102	MARION	11,031,644	LOGAN	6,681,267	BOONE	15,751,701
LOGAN	2,038	BOONE	8,541,514	MINGO	6,390,391	LOGAN	13,059,543
MARSHALL	1,761	MONONGALIA	8,317,281	RALEIGH	4,567,033	MARION	11,179,885
KANAWHA	1,381	LOGAN	6,378,276	KANAWHA	3,152,380	RALEIGH	8,989,408
MARION	1,355	KANAWHA	5,616,260	LINCOLN	2,522,933	MINGO	8,909,271
MINGO	1,351	RALEIGH	4,422,375	MCDOWELL	1,686,804	KANAWHA	8,768,640
MONONGALIA	1,348	OHIO	4,391,905	FAYETTE	1,491,053	MONONGALIA	8,710,740
MCDOWELL	1,249	WYOMING	4,233,412	NICHOLAS	1,220,869	WYOMING	5,393,560
WYOMING	1,248	WAYNE	3,375,390	WYOMING	1,160,148	MCDOWELL	4,556,210
FAYETTE	750	MCDOWELL	2,869,406	WEBSTER	1,158,763	OHIO	4,391,905
WAYNE	628	MINGO	2,518,880	CLAY	917,659	WAYNE	3,831,669
NICHOLAS	572	TUCKER	2,266,735	GREENBRIER	514,990	FAYETTE	3,001,780
GREENBRIER	520	FAYETTE	1,510,727	WAYNE	456,279	WEBSTER	2,583,631
TAYLOR	357	WEBSTER	1,424,868	MONONGALIA	393,459	LINCOLN	2,522,933
WEBSTER	330	UPSHUR	1,213,765	MERCER	160,002	TUCKER	2,371,969
OHIO	312	BARBOUR	1,128,403	MARION	148,241	NICHOLAS	2,337,593
BARBOUR	293	NICHOLAS	1,116,724	TUCKER	105,234	GREENBRIER	1,302,088
LINCOLN	284	GREENBRIER	787,098	MINERAL	56,757	UPSHUR	1,248,237
TUCKER	255	BRAXTON	402,424	UPSHUR	34,472	BARBOUR	1,128,403
CLAY	253	HARRISON	374,166	TAYLOR	14,314	CLAY	1,009,204
UPSHUR	203	TAYLOR	188,379	HARRISON	12,759	BRAXTON	402,424
HARRISON	110	GRANT	133,582	BARBOUR	0	HARRISON	386,925
BRAXON	63	CLAY	91,545	BROOKE	0	TAYLOR	202,693
GRANT	47	PRESTON	10,920	BRAXTON	0	MERCER	160,002
MERCER	34	MASON	0	GRANT	0	GRANT	133,582
PRESTON	14	MERCER	0	MARSHALL	0	MINERAL	56,757
MINERAL	9	BROOKE	0	MASON	0	PRESTON	10,920
MASON	7	LINCOLN	0	OHIO	0	BROOKE	0
BROOKE	0	MINERAL	0	PRESTON	0	MASON	0
<b>TOTAL</b>	<b>22,369</b>	<b>TOTAL</b>	<b>89,500,484</b>	<b>TOTAL</b>	<b>40,055,994</b>	<b>TOTAL</b>	<b>129,556,478</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST)

Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

## AS GOES COAL

from page 4

■ Campaign against mountaintop removal mining.

Even a cursory glance at the “national energy agenda” reveals an agenda that is out of whack and has led to power plant closings, lost coal production, increased utility rates and fuel switching. These are real threats that have a negative impact on all coal mining in our region and occupy a lot of time within other various legislative and public forums. These are political issues requiring political solutions.

Closer to home we have our own challenges in addition to the regulatory assault by federal agencies. Reports of West Virginia's declining reserve base have been well documented. Higher production costs and greater geologic and technical challenges are presented with thinner seams and reserves that are more difficult to access. In simple terms, we have mined the easy stuff. But West Virginia has plenty of coal left, and our industry

is working hard to bring it to market safely and efficiently.

### Time to Capitalize

As West Virginia's immediate future remains challenging, other coal producing regions have a brighter outlook. The Powder River and Illinois Basins are poised to prosper in the coming years and encroach further into markets heretofore held by West Virginia and other eastern coal producers.

To retain its viability in domestic and world markets, West Virginia's coal industry must become more efficient than ever before. The industry is committed to operating in the safest and most efficient manner possible with uncompromising detail to environmental quality. Don't believe the thoughtless banter of those who do not want our miners to work – the coal industry is full of environmentalists, and we take that responsibility seriously.

Today with widespread layoffs, mine clo-

sures, loss production and growing reports of our demise, some would say our glass appears to be half empty.

And while that may appear to be true today, we have the best, highest-grade metallurgical coal and rapidly increasing world demand. As natural gas prices inevitably trend upward, coal will regain market share. In fact, our glass will soon appear half-full. Coal production will not return to 165 million tons of annual production anytime soon, but it should plateau around the 100- to 120-million-ton level, which is strong and assures that coal will continue to be a major economic driver in our state.

Yes, the coal industry has its challenges at home and abroad, but West Virginia coal can provide for our families, protect America and power the world. The opportunity is before us, and if we do not make the most of it, someone else will. We must work together and make West Virginia the global energy leader we know it can be. ♦

# 2012 Monthly Employment and Production

## W.Va. Coal Producing Counties

MONTH	EMPLOYMENT			PRODUCTION		
	UNDERGROUND	SURFACE	AVERAGE	UNDERGROUND	SURFACE	TOTAL
January	16,371	5,589	21,960	8,507,256	3,966,671	12,473,927
February	16,282	5,473	21,755	7,458,902	3,704,323	11,163,225
March	15,851	5,395	21,246	7,385,578	3,730,708	11,116,286
April	15,928	5,247	21,175	6,797,742	3,651,112	10,448,854
May	15,765	5,256	21,021	7,818,234	3,650,715	11,468,949
June	15,645	4,853	20,498	6,763,427	3,623,823	10,387,250
July	15,584	4,919	20,503	5,803,868	2,840,467	8,644,335
August	15,604	5,207	20,811	8,862,756	3,632,471	12,495,227
September	15,366	4,489	19,855	7,446,420	3,072,611	10,519,031
October	14,922	4,217	19,139	8,288,502	3,209,601	11,498,103
November	14,591	4,120	18,711	7,414,603	2,569,732	9,984,335
December	14,521	4,079	18,600	6,974,221	2,403,760	9,377,981
<b>ANNUALIZED EMPLOYMENT/ PRODUCTION</b>	<b>15,536</b>	<b>4,904</b>	<b>20,440</b>	<b>89,521,509</b>	<b>40,055,994</b>	<b>129,577,503</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST)

Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

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## West Virginia's Highest Production Surface Mines - 2013

CORPORATE AFFILIATION	MINE	EMP	PRODUCTION
ARCH COAL	HOLDEN NO. 22 SURF.	223	3,064,762
ALPHA NATURAL RESOURCES	TWILIGHT MTR/PROGRESS	302	2,677,876
PATRIOT	WEST RIDGE III	284	2,522,933
ALPHA NATURAL RESOURCES	BLACK CASTLE	230	2,226,481
PATRIOT	GUYAN SURFACE MINE	222	2,176,132
ALPHA NATURAL RESOURCES	REPUBLIC ENERGY	233	1,909,331
COAL RIVER ENERGY, LLC	MINE NO. 6	92	1,098,873
ALPHA NATURAL RESOURCES	SEVEN PINES	81	990,241
ALPHA NATURAL RESOURCES	EWING FORK NO. 1	83	987,856
MECHEL BLUESTONE	COAL MTN. NO. 1 SURFACE	102	964,257
CONSOL	SURFACE MINE # 1	168	917,659
ALPHA NATURAL RESOURCES	EDWIGHT SURFACE MINE	133	834,750
CLIFFS NATURAL RESOURCES	TONEY'S FORK SURFACE	75	819,221
CONSOL	PEG FORK SURFACE	47	793,229
ALPHA NATURAL RESOURCES	SANDY GAP SURFACE	72	737,174
LEGACY RESOURCES, LLC	SYNERGY MINE NO. 2	107	705,833
ALPHA NATURAL RESOURCES	NO. 1 SURFACE MINE	118	693,588
PATRIOT	SAMPLES MINE	113	686,130
ARCH COAL	SPRUCE NO. 1 MINE	35	630,244
ALPHA NATURAL RESOURCES	SURFACE MINE NO. 2	86	586,194

## West Virginia's Highest Production Underground Mines - 2013

CORPORATE AFFILIATION	MINE	EMP	PRODUCTION
CONSOL	McELROY MINE	991	9,400,486
CONSOL	SHOEMAKER	757	7,754,319
CONSOL	LOVERIDGE	704	5,869,454
CONSOL	ROBINSON RUN NO. 95	598	4,992,046
ALLIANCE	TUNNEL RIDGE	312	4,391,905
PATRIOT	FEDERAL NO 2	568	4,044,938
CONSOL	BLACKSVILLE NO. 2	515	3,222,148
ALPHA NATURAL RESOURCES	CAMP CK. MINE NO. 1	411	2,608,249
ARCH COAL	MOUNTAINEER II MINE	338	2,543,759
CLIFFS NATURAL RESOURCES	PINNACLE MINE	496	2,432,878
ALLIANCE	METTIKI E MINE	239	2,266,735
PATRIOT	AMERICAN EAGLE MINE	430	2,266,211
ALPHA NATURAL RESOURCES	POPLAR RIDGE NO. 1	115	1,306,713
ALPHA NATURAL RESOURCES	ROUNDBOTTOM POWELLTON	188	1,284,981
MIDLAND TRAIL ENERGY, LLC	BC NO. 1	107	1,268,917
BRODY MINING, LLC	BRODY MINE NO. 1	325	1,129,275
ARCH COAL	SENTINEL	286	1,128,403
ARCH COAL	BECKLEY POCAHONTAS	291	1,099,395

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST)

Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.



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## 2012 W.Va. Coal Production by Month Number of Mines

MONTH	UNDERGROUND	SURFACE	TOTAL
January	135	84	219
February	136	82	218
March	128	82	210
April	126	79	205
May	128	78	206
June	126	79	205
July	121	76	197
August	126	75	201
September	126	71	197
October	121	71	192
November	122	71	193
December	114	70	184
<b>AVERAGE</b>	<b>126</b>	<b>77</b>	<b>202</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST) Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

### You Need to Know

- WEST VIRGINIA IS THE NATIONAL LEADER IN UNDERGROUND MINING PRODUCTION
- WEST VIRGINIA IS SECOND ONLY TO WYOMING IN U.S. COAL PRODUCTION
- 98% OF WEST VIRGINIA ELECTRICITY IS GENERATED BY COAL

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# 2012 Coal Production by Method

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST) Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

COUNTY	CONTINUOUS	LONGWALL	UNDERGROUND	AUGER	SURFACE	TOTAL
BARBOUR	1,128,403	0	1,128,403	0	0	1,128,403
BOONE	7,965,318	576,197	8,541,514	0	7,210,187	15,751,701
BRAXTON	402,424	0	402,424	0	0	402,424
CLAY	91,545	0	91,545	0	917,659	1,009,204
FAYETTE	1,510,727	0	1,510,727	0	1,491,053	3,001,780
GRANT	133,582	0	133,582	0	0	133,582
GREENBRIER	787,098	0	787,098	0	514,990	1,302,088
HARRISON	370,285	0	374,166	3,881	12,759	386,925
KANAWHA	4,001,201	1,615,059	5,616,260	0	3,152,380	8,768,640
LINCOLN	0	0	0	0	2,522,933	2,522,933
LOGAN	4,838,467	1,539,809	6,378,276	0	6,681,267	13,059,543
MCDOWELL	2,869,406	0	2,869,406	0	1,686,804	4,556,210
MARION	1,129,426	9,902,218	11,031,644	0	148,241	11,179,885
MARSHALL	1,439,655	15,715,150	17,154,805	0	0	17,154,805
MERCER	0	0	0	0	160,002	160,002
MINERAL	0	0	0	0	56,757	56,757
MINGO	2,518,880	0	2,518,880	0	6,390,391	8,909,271
MONONGALIA	1,824,890	6,492,391	8,317,281	0	393,459	8,710,740
NICHOLAS	1,116,724	0	1,116,724	0	1,220,869	2,337,593
OHIO	1,076,556	3,315,349	4,391,905	0	0	4,391,905
PRESTON	10,920	0	10,920	0	0	10,920
RALEIGH	4,422,375	0	4,422,375	0	4,567,033	8,989,408
TAYLOR	188,379	0	188,379	0	14,314	202,693
TUCKER	419,852	1,846,882	2,266,735	0	105,234	2,371,969
UPSHUR	1,213,765	0	1,213,765	0	34,472	1,248,237
WAYNE	3,375,390	0	3,375,390	0	456,279	3,831,669
WEBSTER	1,372,040	0	1,424,868	0	1,158,763	2,583,631
WYOMING	2,112,295	2,121,117	4,233,412	0	1,160,148	5,393,560
<b>TOTAL</b>	<b>46,319,603</b>	<b>43,124,172</b>	<b>89,500,484</b>	<b>3,881</b>	<b>40,055,994</b>	<b>129,556,478</b>

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## 2012 Coal Transportation by County

Note: Because coal distribution may cross annual year boundaries, total tons produced does not equal total tons distributed in many cases.

COUNTY	RAIL	RIVER	TRUCK	BELT	STOCK-PILED	TOTAL TONS DIST.
BARBOUR	611,113	0	0	0	0	611,113
BOONE	3,240,563	47,349	580,175	2,677,876	0	3,868,087
BRAXTON	292,444	0	0	0	0	292,444
CLAY	158,660	0	0	1	0	158,660
FAYETTE	31,742	134,220	455,001	0	0	620,964
GRANT	0	0	133,582	0	0	133,582
GREENBRIER	606,930	6,456	134,747	2,806	101	752,230
HARRISON	0	0	374,166	0	0	374,166
KANAWHA	1,548,930	668,948	3,282,620	0	0	5,500,496
LOGAN	5,197,166	0	312,178	0	0	5,489,367
MCDOWELL	1,428,416	30,180	1,013,482	0	0	2,463,086
MARION	6,983,124	0	170,151	3,363,550	0	10,516,825
MARSHALL	0	9,400,486	0	0	0	9,400,486
MINGO	296,715	30,567	408,524	0	0	735,806
MONONGALIA	7,073,662	0	1,218,516	0	0	8,292,178
NICHOLAS	763,309	325,839	44,068	0	330	1,133,537
OHIO	0	1,966,844	0	0	0	1,966,844
PRESTON	0	0	10,920	0	0	10,920
RALEIGH	3,356,142	0	517,060	425,002	0	3,873,202
TAYLOR	45,008	0	19,039	0	0	64,047
TUCKER	153,643	0	2,053,318	0	0	2,206,961
UPSHUR	0	0	1,168,325	0	0	1,168,325
WAYNE	0	0	767,141	0	0	743,470
WEBSTER	1,147,608	0	0	0	0	1,147,608
WYOMING	1,868,835	0	510,283	0	0	2,379,118
<b>TOTAL</b>	<b>55,626,201</b>	<b>12,975,761</b>	<b>25,709,145</b>	<b>6,472,523</b>	<b>173,923</b>	<b>101,222,777</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST)

Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

### *You Need to Know*

- WEST VIRGINIA COAL IS SHIPPED TO 33 STATES AND THE DISTRICT OF COLUMBIA
- WEST VIRGINIA COAL IS SHIPPED TO 36 COUNTRIES



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# 2012 Coal Production and Employment by Seam

SEAM	EMP.	UNDERGROUND TON.	SURFACE TON.	TOTAL
ALMA	554	3,567,581	142,229	3,709,810
ALMA A	108	296,715	0	296,715
BAKERSTOWN	61	144,502	0	144,502
BECKLEY	349	559,068	840,155	1,399,223
BENS CREEK	20	52,441	0	52,441
CEDAR	30	0	139,208	139,208
CEDAR GROVE	428	1,459,956	985,029	2,444,985
CHILTON	192	608,753	278,168	886,921
CLARION	542	1,128,403	1,636,983	2,765,386
COALBURG	1,386	1,803,792	5,600,392	7,404,184
DOUGLAS	268	688,526	432,943	1,121,469
DOUGLAS A	5	0	0	0
EAGLE	1,293	3,560,446	0	3,560,446
EAGLE A	22	0	86,013	86,013
ELK LICK	2	0	0	0
FIRE CREEK	89	106,958	180,604	287,562
FRANKLIN RIDER	5	0	38,886	38,886
GILBERT	21	73,876	0	73,876
GLENALUM TUNNEL	124	526,576	29,569	556,145
HERNSHAW	236	1,003,844	115,451	1,119,295
IAEGER	52	127,139	157	127,296
LITTLE CHILTON	108	272,488	0	272,488
LITTLE EAGLE	31	141,445	0	141,445
LITTLE FIRE CREEK	261	511,557	729,861	1,241,418
LOWER CAMPBELL CREEK	94	57,049	0	57,049
LOWER CEDAR GROVE	278	1,079,928	0	1,079,928
LOWER FREEPORT	11	32,891	0	32,891
LOWER KITTANNING	1,344	2,155,283	4,979,586	7,134,869
LOWER WAR EAGLE	135	366,125	0	366,125
LOWER WINIFREDE	42	57,648	0	57,648
MAHONING	107	350,607	0	350,607
MATEWAN	17	0	0	0
MIDDLE KITTANNING	321	351,718	1,543,602	1,895,320
NO. 2 GAS	819	2,468,948	972	2,469,920
PEERLESS (CAMPBELL CREEK)	733	3,233,350	0	3,233,350
PITTSBURGH	4,585	40,049,462	46,558	40,096,020
POCAHONTAS 2	88	205,020	0	205,020
POCAHONTAS 3	1,447	5,339,977	108,581	5,448,558
POCAHONTAS 3 RIDER	20	0	0	0
POCAHONTAS 4	78	166,017	9,767	175,784
POCAHONTAS 5	34	0	60,061	60,061
POCAHONTAS 6	410	553,201	695,120	1,248,321
POCAHONTAS 7	69	116,653	0	116,653
POCAHONTAS 9	69	190,894	2,913	193,807
POWELLTON	1,111	3,813,922	1,546,285	5,360,207
REDSTONE	7	0	0	0
REFUSE PROCESSING	41	0	217,167	217,167
SEWELL	442	1,094,168	90,633	1,184,801
SEWELL A	119	857,719	0	857,719
SEWICKLEY	236	1,220,339	41,534	1,261,873
SQUIRE JIM	47	98,831	0	98,831
STOCKTON-LEWISTON (LOWER MERCE)	1,731	3,460,047	12,792,798	16,252,845
UPPER FREEPORT	263	2,266,735	139,706	2,406,441
UPPER KITTANNING	418	109,127	2,857,842	2,966,969
UPPER KITTANNING RIDER	52	369,533	0	369,533
WASHINGTON	8	0	148,084	148,084
WAYNESBURG	38	0	168,320	168,320
WELCH	25	0	84,128	84,128
WILLIAMSON	201	11,728	1,232,809	1,244,537
WINIFREDE	723	2,768,368	1,951,502	4,719,870
Not Specified	19	21,130	102,378	123,508
<b>TOTAL</b>	<b>22,369</b>	<b>89,500,484</b>	<b>40,055,994</b>	<b>129,556,478</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOMHST) Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.



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<sup>1</sup>Huntington is the #1 SBA 7(a) lender in the region made up of Indiana, Kentucky, Ohio, Michigan, West Virginia and Western PA. Source: U.S. SBA from October 1, 2009, through June 30, 2012. Member FDIC.  and Huntington® are federally registered service marks of Huntington Bancshares Incorporated. Huntington® Welcome™ and  are service marks of Huntington Bancshares Incorporated. ©2012 Huntington Bancshares Incorporated.



# West Virginia Coal Production and Employment

COUNTY	DEEP PRODUCTION	SURFACE PRODUCTION	TOTAL PRODUCTION	DEEP COMPANIES	SURFACE COMPANIES	TOTAL COMPANIES	DEEP MINES	SURFACE MINES	TOTAL MINES	DEEP EMPLOYEES	SURFACE EMPLOYEES	TOTAL EMPLOYEES	TOTAL WAGES	TOTAL 75% SEVERANCE
BARBOUR	1,128,403	0	1,128,403	2	5	7	2	8	10	286	7	293	\$20,070,500	\$237,120
BOONE	8,541,514	7,210,187	15,751,701	26	16	42	71	24	95	2,548	947	3495	\$239,407,500	\$3,765,715
BRAXTON	402,424	0	402,424	1	0	1	3	0	3	63	0	63	\$4,315,500	\$66,618
BROOKE	0	0	0	0	1	1	0	1	1	0	0	0	0	0
CLAY	91,545	917,659	1,009,204	1	1	2	1	1	2	85	168	253	\$17,330,500	\$339,262
FAYETTE	1,510,727	1,491,053	3,001,780	6	10	16	8	11	19	488	262	750	\$51,375,000	\$747,287
GRANT	133,582	0	133,582	1	0	1	1	0	1	47	0	47	\$3,219,500	\$31,116
GREENBRIER	787,098	514,990	1,302,088	4	4	8	11	6	17	368	152	520	\$35,620,000	\$292,100
HARRISON	374,166	12,759	386,925	2	6	8	2	6	8	96	14	110	\$7,535,000	\$91,057
KANAWHA	5,616,260	3,152,380	8,768,640	8	18	26	23	24	47	940	441	1381	\$94,598,500	\$1,294,866
LINCOLN	0	2,522,933	2,522,933	0	1	1	0	1	1	0	284	284	\$19,454,000	\$668,450
LOGAN	6,378,276	6,681,267	13,059,543	13	15	28	20	24	44	1,243	795	2038	\$139,603,000	\$3,325,880
MCDOWELL	2,869,406	1,686,804	4,556,210	26	22	48	40	38	78	886	363	1249	\$85,556,500	\$1,142,954
MARION	11,031,644	148,241	11,179,885	2	5	7	3	11	14	1,324	31	1355	\$92,817,500	\$2,492,951
MARSHALL	17,154,805	0	17,154,805	2	0	2	2	0	2	1,761	0	1761	\$120,628,500	\$3,442,302
MASON	0	0	0	1	0	1	1	0	1	7	0	7	\$479,500	\$30,711
MERCER	0	160,002	160,002	1	2	3	1	4	5	0	34	34	\$2,329,000	\$12,512
MINERAL	0	56,757	56,757	0	2	2	0	3	3	0	9	9	\$616,500	\$1,562,832
MINGO	2,518,880	6,390,391	8,909,271	14	15	29	33	24	57	773	578	1351	\$92,543,500	\$1,009,889
MONONGALIA	8,317,281	393,459	8,710,740	4	6	10	5	9	14	1,286	62	1348	\$92,338,000	\$651,587
NICHOLAS	1,116,724	1,220,869	2,337,593	5	12	17	9	14	23	350	222	572	\$39,182,000	\$1,027,358
OHIO	4,391,905	0	4,391,905	1	0	1	1	0	1	312	0	312	\$21,372,000	\$1,539
PRESTON	10,920	0	10,920	2	0	2	2	0	2	14	0	14	\$959,000	\$1,958,319
RALEIGH	4,422,375	4,567,033	8,989,408	9	10	19	23	19	42	1,420	682	2102	\$143,987,000	\$74,599
TAYLOR	188,379	14,314	202,693	2	1	3	2	1	3	354	3	357	\$24,454,500	\$8,177
TUCKER	2,266,735	105,234	2,371,969	1	1	2	1	1	2	239	16	255	\$17,467,500	\$540,196
UPSHUR	1,213,765	34,472	1,248,237	5	1	6	5	1	6	195	8	203	\$13,905,500	\$95,080
WAYNE	3,375,390	456,279	3,831,669	3	1	4	6	1	7	555	73	628	\$43,018,000	\$724,058
WEBSTER	1,424,868	1,158,763	2,583,631	1	2	3	2	2	4	143	187	330	\$22,605,000	\$385,124
WYOMING	4,233,412	1,160,148	5,393,560	11	9	20	14	12	26	1,085	163	1248	\$85,488,000	\$1,104,950
<b>TOTAL</b>	<b>89,500,484</b>	<b>40,055,994</b>	<b>129,556,478</b>	<b>154</b>	<b>166</b>	<b>320</b>	<b>292</b>	<b>246</b>	<b>538</b>	<b>16,868</b>	<b>5,501</b>	<b>22369</b>	<b>\$1,532,276,500</b>	<b>\$27,124,608</b>

Source - West Virginia Office of Miners' Health, Safety & Training (WVOHMST)

Note: Slight discrepancies on these pages is due to differences in the measurement methodologies used by the two sources, the EIA and WVOMHST.

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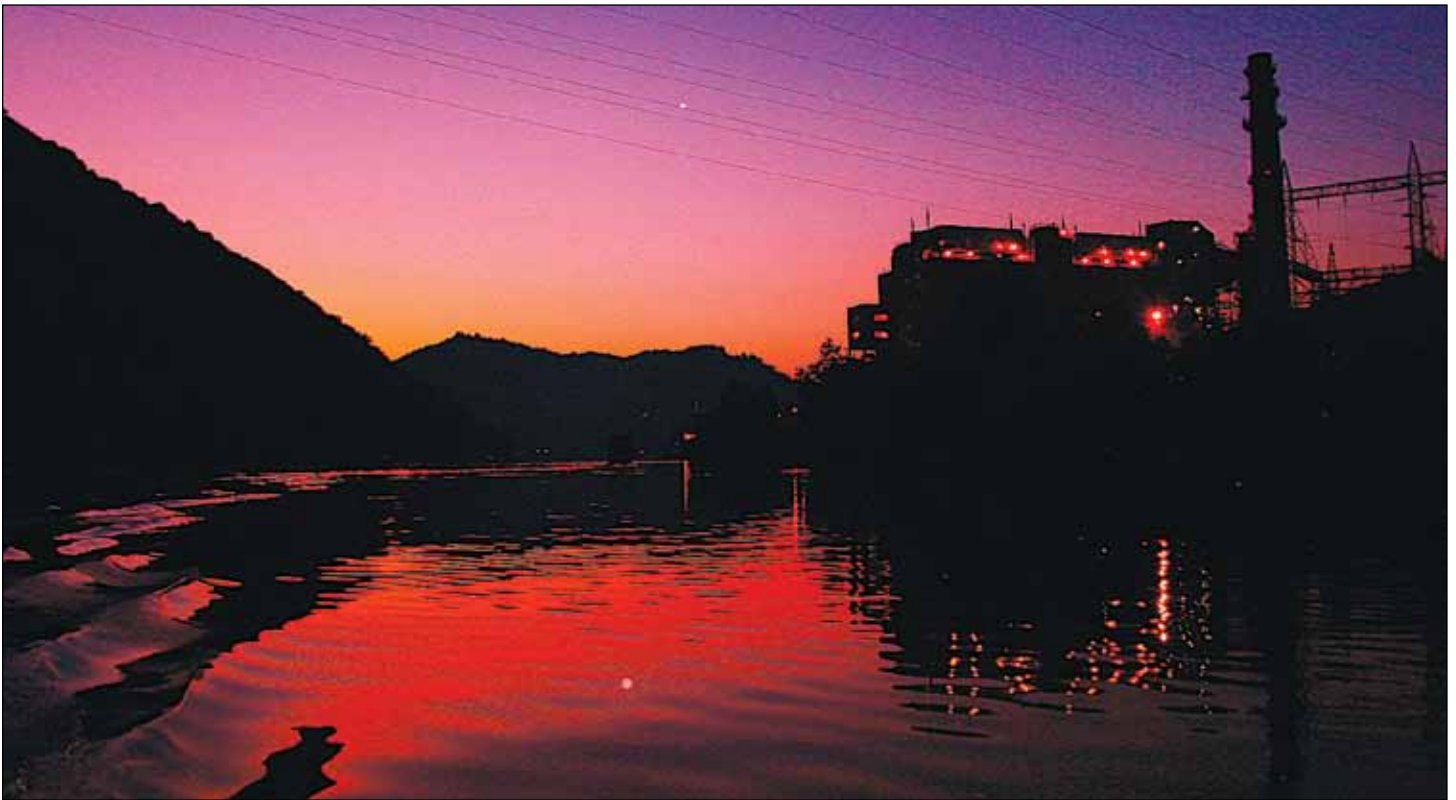
*– Training participant*



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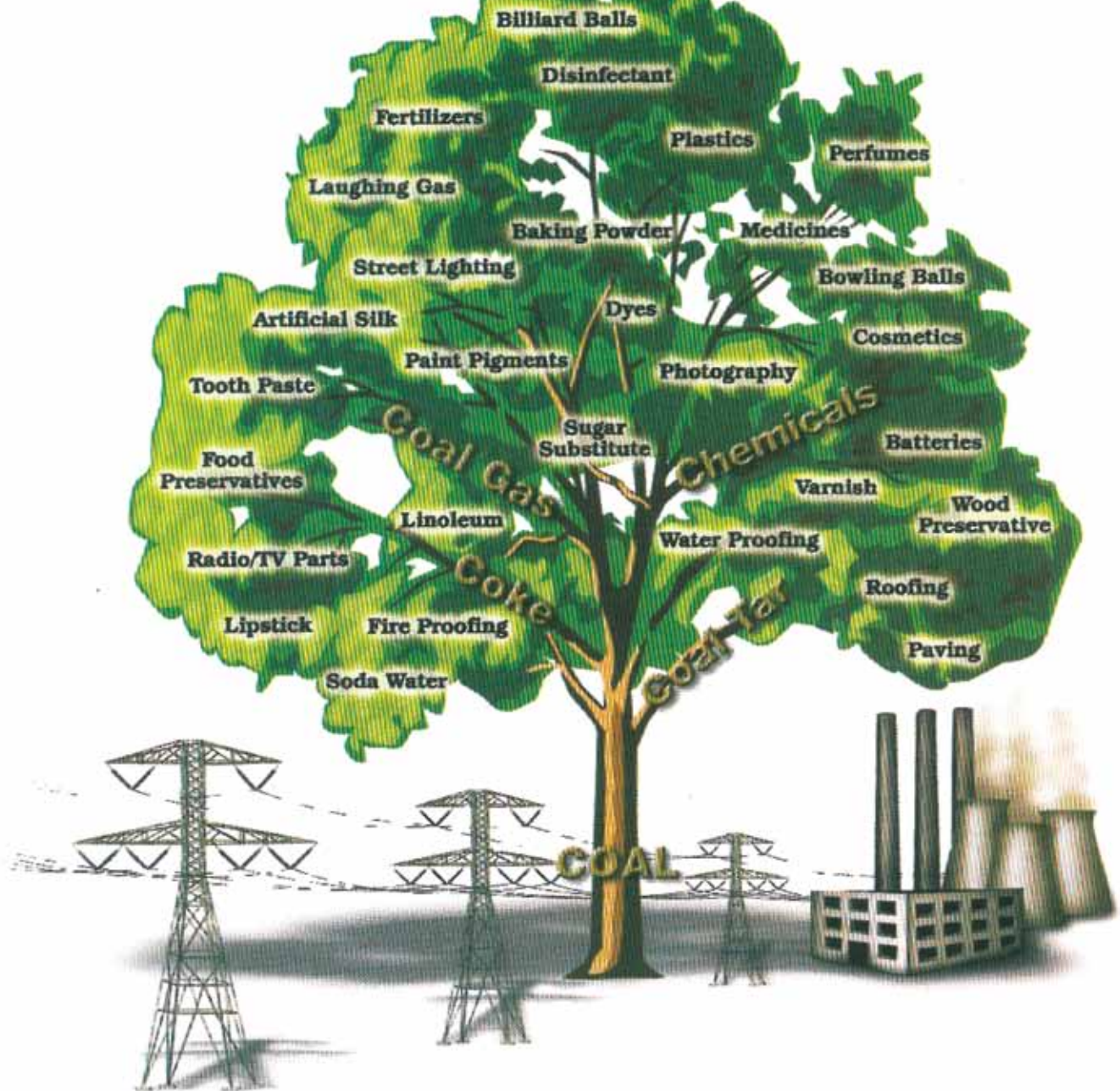


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# West Virginia Coal Tree



**T**his coal tree illustrates just a small portion of the vital role coal plays in the manufacturing of thousands of products. Coal has been a major part of this country's development and that is still true today. Americas industries rely heavily on the products and so do you. Coal continues to be the largest resource for the production of electricity in the United States. It is more plentiful than oil or natural gas, making up about 95%

of the nation's fossil energy reserves. Nationwide, about 52% of the energy used for electric generation comes from coal. IN West Virginia, we have the sixth lowest electricity costs in the nation and more than 99% of our electricity is generated from coal. As you can see, it would be difficult to live a ay without using products made from col. Coal is a major part of West Virginia's economy.♦



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# Dinsmôre

## You Need to Know

THE COAL INDUSTRY AND THE COAL BURNING ELECTRIC GENERATING INDUSTRY TOGETHER REPRESENT NEARLY 60% OF THE BUSINESS TAXES PAID TO THE STATE OF WEST VIRGINIA

### The Coal Severance Tax

In 1987, West Virginia enacted a severance tax on coal. The tax amounts to 5% of the selling price of mined coal. Of this amount, the State retains 93%. The remaining 7% is apportioned among the State's 55 counties and its 228 incorporated municipalities.

Three-fourths of the 7% share is divided

among the coal producing counties.

This money is distributed according to each county's production level.

The remaining quarter of the 7% is divided among all counties and municipalities, according to population.

Each county receives an additional share, based on the population of the unin-

corporated areas of the county.

The total severance tax collections for 2012 amounted to more than \$400 million.

A total of \$33 million was distributed to all counties and municipalities. Of this amount, \$27.1 represented coal production in the 29 coal producing counties.

### 2012 Coal Severance Tax for Producing Counties

COUNTY	TOTAL 75%	TOTAL 25%	TOTAL SEVERANCE
BARBOUR	\$237,120	\$54,565	\$291,684
BOONE	\$3,765,715	\$98,512	\$3,864,227
BRAXTON	\$66,618	\$57,746	\$124,364
CLAY	\$339,262	\$43,405	\$382,667
FAYETTE	\$747,287	\$144,703	\$891,990
GRANT	\$31,116	\$44,795	\$75,912
GREENBRIER	\$292,100	\$114,721	\$406,821
HARRISON	\$91,057	\$167,930	\$258,987
KANAWHA	\$1,294,866	\$454,852	\$1,749,717
LINCOLN	\$668,450	\$96,638	\$765,087
LOGAN	\$3,325,880	\$157,136	\$3,483,016
MARION	\$2,492,951	\$131,849	\$2,624,800
MARSHALL	\$3,442,302	\$86,346	\$3,528,649
MCDOWELL	\$1,142,954	\$76,549	\$1,219,503
MERCER	\$30,711	\$212,876	\$243,588
MINERAL	\$12,512	\$97,657	\$110,169
MINGO	\$1,562,832	\$105,958	\$1,668,790
MONONGALIA	\$1,009,889	\$291,651	\$1,301,541
NICHOLAS	\$651,587	\$100,570	\$752,157
OHIO	\$1,027,358	\$50,934	\$1,078,292
PRESTON	\$1,539	\$128,203	\$129,741
RALEIGH	\$1,958,319	\$282,886	\$2,241,204
RANDOLPH*	\$74,599	\$98,155	\$172,754
TAYLOR	\$8,177	\$19,060	\$27,237
TUCKER	\$540,196	\$29,410	\$569,606
UPSHUR	\$95,080	\$90,835	\$185,915
WAYNE	\$724,058	\$155,042	\$879,101
WEBSTER	\$385,124	\$37,418	\$422,542
WYOMING	\$1,104,950	\$98,448	\$1,203,398
<b>TOTAL</b>	<b>\$27,124,608</b>	<b>\$5,910,654</b>	<b>\$33,035,262</b>

Note: Municipalities within producing and non-producing counties also receive a share. See following pages for this distribution.

\*Randolph County had no production in 2012.



# 2012 25% Coal Severance Distribution

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
BARBOUR	Barbour County Sheriff	\$54,564.51
BARBOUR	Belington	\$9,373.84
BARBOUR	Junior	\$2,537.45
BARBOUR	Philippi	\$14,473.11
BERKELEY	Berkeley County Sheriff	\$422,691.31
BERKELEY	Hedgesville	\$1,551.68
BERKELEY	Martinsburg	\$84,061.85
BOONE	Boone County Sheriff	\$98,511.56
BOONE	Danville	\$3,371.83
BOONE	Madison	\$15,009.84
BOONE	Sylvester	\$780.78
BOONE	Whitesville	\$2,508.17
BRAXTON	Braxton County Sheriff	\$57,746.28
BRAXTON	Burnsville	\$2,488.63
BRAXTON	Flatwoods	\$1,351.70
BRAXTON	Gassaway	\$4,430.77
BRAXTON	Sutton	\$4,850.43
BROOKE	Beech Bottom	\$2,552.13
BROOKE	Bethany	\$5,055.39
BROOKE	Brooke County Sheriff	\$59,908.44
BROOKE	Follansbee	\$14,570.83
BROOKE	Weirton	\$19,611.25
BROOKE	Wellsburg	\$13,687.59
BROOKE	Windsor Heights	\$2,064.13
CABELL	Barboursville	\$19,342.89
CABELL	Cabell County Sheriff	\$218,209.85
CABELL	Huntington	\$220,619.20
CABELL	Milton	\$11,823.40
CALHOUN	Calhoun County Sheriff	\$34,479.89
CALHOUN	Grantsville	\$2,737.48
CLAY	Clay	\$2,395.98

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
CLAY	Clay County Sheriff	\$43,405.07
DODDRIDGE	Doddridge County Sheriff	\$35,997.22
DODDRIDGE	West Union	\$4,025.77
FAYETTE	Ansted	\$6,851.11
FAYETTE	Fayette County Sheriff	\$144,702.61
FAYETTE	Fayetteville	\$14,112.04
FAYETTE	Gauley Bridge	\$2,996.20
FAYETTE	Meadow Bridge	\$1,849.35
FAYETTE	Montgomery	\$4,728.33
FAYETTE	Mount Hope	\$6,899.90
FAYETTE	Oak Hill	\$37,719.99
FAYETTE	Pax	\$814.87
FAYETTE	Smithers	\$3,967.22
FAYETTE	Thurmond	\$24.41
GILMER	Gilmer County Sheriff	\$34,142.76
GILMER	Glennville	\$7,500.11
GILMER	Sand Fork	\$775.91
GRANT	Bayard	\$1,415.08
GRANT	Grant County Sheriff	\$44,795.35
GRANT	Petersburg	\$12,038.19
GREENBRIER	Alderson	\$4,796.51
GREENBRIER	Falling Springs	\$1,029.62
GREENBRIER	Greenbrier County Sheriff	\$114,721.32
GREENBRIER	Lewisburg	\$18,689.21
GREENBRIER	Quinwood	\$1,415.12
GREENBRIER	Rainelle	\$7,343.96
GREENBRIER	Ronceverte	\$8,612.58
GREENBRIER	Rupert	\$4,596.70
GREENBRIER	White Sulphur Springs	\$11,925.95
HAMPSHIRE	Capon Bridge	\$1,732.23

## 2012 25% Coal Severance Distribution cont.

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
HAMPSHIRE	Hampshire County Sheriff	\$106,185.98
HAMPSHIRE	Romney	\$9,017.65
HANCOCK	Chester	\$12,614.01
HANCOCK	Hancock County Sheriff	\$54,950.33
HANCOCK	New Cumberland	\$5,382.27
HANCOCK	Weirton	\$76,743.31
HARDY	Hardy County Sheriff	\$54,701.03
HARDY	Moorefield	\$12,413.85
HARDY	Wardensville	\$1,322.40
HARRISON	Anmoore	\$3,757.31
HARRISON	Bridgeport	\$39,764.40
HARRISON	Clarksburg	\$80,895.53
HARRISON	Harrison County Sheriff	\$167,929.61
HARRISON	Lost Creek	\$2,420.28
HARRISON	Lumberport	\$4,274.63
HARRISON	Nutter Fort	\$7,773.38
HARRISON	Salem	\$7,739.28
HARRISON	Shinnston	\$10,740.25
HARRISON	Stonewood	\$8,812.74
HARRISON	West Milford	\$3,074.20
JACKSON	Jackson County Sheriff	\$107,757.83
JACKSON	Ravenswood	\$18,913.73
JACKSON	Ripley	\$15,868.77
JEFFERSON	Bolivar	\$5,099.26
JEFFERSON	Charles Town	\$25,661.67
JEFFERSON	Harpers Ferry	\$1,395.55
JEFFERSON	Jefferson County Sheriff	\$198,767.52
JEFFERSON	Ranson	\$21,665.40
JEFFERSON	Shepherdstown	\$8,461.12
KANAWHA	Belle	\$6,148.40
KANAWHA	Cedar Grove	\$4,865.03

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
KANAWHA	Charleston	\$250,816.61
KANAWHA	Chesapeake	\$7,583.03
KANAWHA	Clendenin	\$5,987.33
KANAWHA	Dunbar	\$38,584.06
KANAWHA	East Bank	\$4,679.60
KANAWHA	Glasgow	\$4,416.09
KANAWHA	Handley	\$1,702.99
KANAWHA	Kanawha County Sheriff	\$454,851.71
KANAWHA	Marmet	\$7,334.23
KANAWHA	Montgomery	\$3,264.72
KANAWHA	Nitro	\$29,384.21
KANAWHA	Pratt	\$2,937.56
KANAWHA	South Charleston	\$65,631.78
KANAWHA	St. Albans	\$53,891.40
LEWIS	Jane Lew	\$1,995.77
LEWIS	Lewis County Sheriff	\$57,839.02
LEWIS	Weston	\$20,055.57
LINCOLN	Hamlin	\$5,572.60
LINCOLN	Lincoln County Sheriff	\$96,637.54
LINCOLN	West Hamlin	\$3,776.84
LOGAN	Chapmanville	\$6,128.86
LOGAN	Logan	\$8,680.95
LOGAN	Logan County Sheriff	\$157,136.09
LOGAN	Man	\$3,703.72
LOGAN	Mitchell Heights	\$1,576.11
LOGAN	West Logan	\$2,068.99
MARION	Barrackville	\$6,353.39
MARION	Fairmont	\$91,269.79
MARION	Fairview	\$1,990.89
MARION	Farmington	\$1,829.92



## 2012 25% Coal Severance Distribution cont.

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
MARION	Grant Town	\$2,991.30
MARION	Mannington	\$10,066.77
MARION	Marion County Sheriff	\$131,849.23
MARION	Monongah	\$5,094.34
MARION	Rivesville	\$4,557.64
MARION	White Hall	\$3,161.98
MARION	Worthington	\$771.02
MARSHALL	Benwood	\$6,929.22
MARSHALL	Cameron	\$4,616.31
MARSHALL	Glen Dale	\$7,446.39
MARSHALL	Marshall County Sheriff	\$86,346.49
MARSHALL	McMechen	\$9,398.29
MARSHALL	Moundsville	\$45,469.15
MARSHALL	Pleasant Valley	\$15,366.12
MARSHALL	Triadelphia	\$3,957.42
MARSHALL	Wheeling	\$1,346.78
MASON	Hartford	\$2,996.14
MASON	Henderson	\$1,322.42
MASON	Leon	\$771.01
MASON	Mason	\$4,723.60
MASON	Mason County Sheriff	\$94,680.16
MASON	New Haven	\$7,612.31
MASON	Point Pleasant	\$21,226.70
MCDOWELL	Anawalt	\$1,102.77
MCDOWELL	Bradshaw	\$1,644.46
MCDOWELL	Davy	\$2,049.46
MCDOWELL	Gary	\$4,723.56
MCDOWELL	laeger	\$1,473.69
MCDOWELL	Keystone	\$1,376.15
MCDOWELL	Kimball	\$946.76
MCDOWELL	McDowell County	\$76,548.96

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
MCDOWELL	Northfork	\$2,093.44
MCDOWELL	War	\$4,206.25
MCDOWELL	Welch	\$11,740.63
MERCER	Athens	\$5,113.92
MERCER	Bluefield	\$50,978.38
MERCER	Bramwell	\$1,776.24
MERCER	Matoaka	\$1,107.68
MERCER	Mercer County Sheriff	\$212,876.38
MERCER	Oakvale	\$590.45
MERCER	Princeton	\$31,386.16
MINERAL	Carpendale	\$4,767.41
MINERAL	Elk Garden	\$1,132.06
MINERAL	Keyser	\$26,540.59
MINERAL	Mineral County Sheriff	\$97,656.93
MINERAL	Piedmont	\$4,274.65
MINERAL	Ridgeley	\$3,293.86
MINGO	Delbarton	\$2,825.33
MINGO	Gilbert	\$2,195.84
MINGO	Kermit	\$1,981.06
MINGO	Matewan	\$2,434.92
MINGO	Mingo County Sheriff	\$105,957.98
MINGO	Williamson	\$15,571.16
MONONGALIA	Blacksville	\$834.41
MONONGALIA	Granville	\$3,811.04
MONONGALIA	Monongalia County Sheriff	\$291,651.29
MONONGALIA	Morgantown	\$144,730.86
MONONGALIA	Star City	\$8,905.28
MONONGALIA	Westover	\$19,435.75
MONROE	Alderson	\$980.98
MONROE	Monroe County Sheriff	\$58,961.65

CONTINUED ON Page 32



## 2012 25% Coal Severance Distribution cont.

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
MONROE	Peterstown	\$3,186.36
MONROE	Union	\$2,757.00
MORGAN	Bath	\$3,044.91
MORGAN	Morgan County Sheriff	\$80,070.14
MORGAN	Paw Paw	\$2,478.88
NICHOLAS	Nicholas County Sheriff	\$100,570.47
NICHOLAS	Richwood	\$10,008.38
NICHOLAS	Summersville	\$17,430.16
OHIO	Bethlehem	\$12,194.41
OHIO	Clearview	\$2,757.01
OHIO	Ohio County Sheriff	\$50,934.26
OHIO	Valley Grove	\$1,844.49
OHIO	West Liberty	\$7,524.43
OHIO	Wheeling	\$137,656.89
PENDLETON	Franklin	\$3,518.28
PENDLETON	Pendleton County Sheriff	\$34,031.09
PLEASANTS	Belmont	\$4,406.40
PLEASANTS	Pleasants County Sheriff	\$23,627.38
PLEASANTS	St. Marys	\$9,076.26
POCAHONTAS	Durbin	\$1,429.72
POCAHONTAS	Hillsboro	\$1,268.68
POCAHONTAS	Marlinton	\$5,143.25
POCAHONTAS	Pocahontas County Sheriff	\$34,704.42
PRESTON	Albright	\$1,459.01
PRESTON	Brandonville	\$492.87
PRESTON	Bruceton Mills	\$414.76
PRESTON	Kingwood	\$14,341.40
PRESTON	Masontown	\$2,664.35
PRESTON	Newburg	\$1,605.43
PRESTON	Preston County Sheriff	\$128,202.99
PRESTON	Reedsville	\$2,893.62

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
PRESTON	Rowlesburg	\$2,849.79
PRESTON	Terra Alta	\$7,207.31
PRESTON	Tunnelton	\$1,434.62
PUTNAM	Bancroft	\$2,864.28
PUTNAM	Buffalo	\$6,031.29
PUTNAM	Eleanor	\$7,407.28
PUTNAM	Hurricane	\$30,663.70
PUTNAM	Nitro	\$5,642.17
PUTNAM	Poca	\$4,752.87
PUTNAM	Putnam County Sheriff	\$202,165.05
PUTNAM	Winfield	\$11,228.01
RALEIGH	Beckley	\$85,950.80
RALEIGH	Lester	\$1,698.09
RALEIGH	Mabscott	\$6,870.60
RALEIGH	Raleigh County Sheriff	\$282,885.57
RALEIGH	Rhodell	\$844.18
RALEIGH	Sophia	\$6,558.27
RANDOLPH	Beverly	\$3,425.56
RANDOLPH	Elkins	\$34,616.52
RANDOLPH	Harman	\$697.77
RANDOLPH	Huttonsville	\$1,078.45
RANDOLPH	Mill Creek	\$3,532.89
RANDOLPH	Montrose	\$761.25
RANDOLPH	Randolph County Sheriff	\$98,154.68
RANDOLPH	Womelsdorf	\$1,219.96
RITCHIE	Auburn	\$473.36
RITCHIE	Cairo	\$1,371.23
RITCHIE	Ellenboro	\$1,771.34
RITCHIE	Harrisville	\$9,154.33
RITCHIE	Pennsboro	\$5,714.12

CONTINUED ON Page 34

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## 2012 25% Coal Severance Distribution cont.

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
RITCHIE	Pullman	\$751.49
RITCHIE	Ritchie County Sheriff	\$31,752.08
ROANE	Reedy	\$888.12
ROANE	Roane County Sheriff	\$60,615.68
ROANE	Spencer	\$11,330.68
SUMMERS	Hinton	\$13,058.12
SUMMERS	Summers County Sheriff	\$54,901.14
TAYLOR	Flemington	\$1,522.49
TAYLOR	Grafton	\$25,198.79
TAYLOR	Taylor County Sheriff	\$55,720.89
TUCKER	Davis	\$3,220.59
TUCKER	Hambleton	\$1,132.07
TUCKER	Hendricks	\$1,327.29
TUCKER	Parsons	\$7,246.37
TUCKER	Thomas	\$2,859.41
TUCKER	Tucker County Sheriff	\$19,060.15
TYLER	Friendly	\$644.16
TYLER	Middlebourne	\$3,976.98
TYLER	Paden City	\$4,089.18
TYLER	Sistersville	\$6,812.15
TYLER	Tyler County Sheriff	\$29,409.88
UPSHUR	Buckhannon	\$27,516.57
UPSHUR	Upshur County Sheriff	\$90,835.13
WAYNE	Ceredo	\$7,075.64
WAYNE	Fort Gay	\$3,440.25

COUNTY	POLITICAL SUBDIVISION	ANNUAL TOTAL
WAYNE	Huntington	\$19,159.61
WAYNE	Kenova	\$15,693.16
WAYNE	Wayne	\$6,894.93
WAYNE	Wayne County Sheriff	\$155,042.34
WEBSTER	Addison	\$3,786.64
WEBSTER	Camden-On-Gauley	\$824.61
WEBSTER	Cowen	\$2,639.90
WEBSTER	Webster County Sheriff	\$37,417.65
WETZEL	Hundred	\$1,459.03
WETZEL	New Martinsville	\$26,184.54
WETZEL	Paden City	\$8,759.07
WETZEL	Pine Grove	\$2,693.63
WETZEL	Smithfield	\$707.56
WETZEL	Wetzel County Sheriff	\$41,116.31
WIRT	Elizabeth	\$4,016.07
WIRT	Wirt County Sheriff	\$23,881.19
WOOD	North Hills	\$4,059.89
WOOD	Parkersburg	\$153,671.67
WOOD	Vienna	\$52,451.80
WOOD	Williamstown	\$14,190.15
WOOD	Wood County Sheriff	\$199,945.08
WYOMING	Mullens	\$7,607.48
WYOMING	Oceana	\$6,802.36
WYOMING	Pineville	\$3,259.66
WYOMING	Wyoming County Sheriff	\$98,448.11
<b>TOTAL</b>		<b>\$ 9,042,024.93</b>

### What Does Coal Mean To You?

- More than \$26 Billion pumped into the West Virginia economy each year.
- More than \$3.2 Billion in wages for working West Virginia families.
- Jobs for more than 60,000 West Virginians
- Jobs paying an average of \$68,500 per year-- twice the state average wage.
- More than 60 percent of the state's business taxes are paid by coal and utilities.



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Managing Partner, West Virginia  
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—Jeff Hoops, CEO, Revelation Energy LLC

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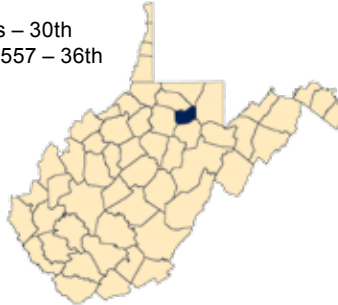
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# County Profiles of West Virginia Coal Country

## Barbour

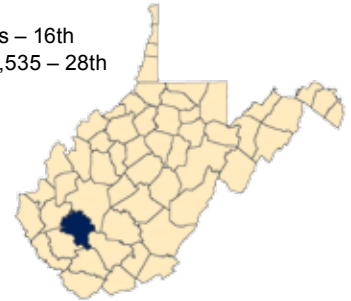
Founded – 1843  
 Named for Virginia Judge Philip Pendleton Barbour  
 County Seat – Philippi  
 Area/State Rank – 343 square miles – 30th  
 Population (2000)/ State Rank – 15,557 – 36th  
 Incorporated Communities  
 Philippi, Belington, Junior  
 Principal Waterways  
 Tygart River,  
 Buckhannon River,  
 Middle Fork River



Mines .....	10
Employees .....	293
Estimated Direct Wages .....	\$20,070,500
Severance Tax Receipts .....	\$291,684
Production .....	1,128,403
Underground .....	1,128,403
Surface .....	0
Recoverable Reserves – Tons .....	1,578,558,278
Major Seams	
Bakerstown, Kittanning, Pittsburgh, Redstone, Sewickley	
<b>Primary Mines</b>	
<b>Wolf Run Mining Co., Inc. (Sentinel) .....</b>	<b>1,128,403</b>

## Boone

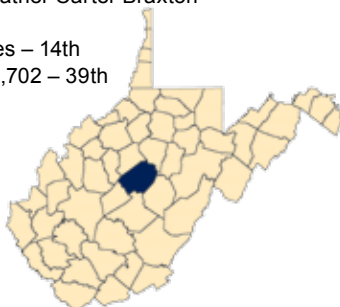
Founded – 1847  
 Named for Frontiersman Daniel Boone  
 County Seat – Madison  
 Area/State Rank – 503 square miles – 16th  
 Population (2000)/ State Rank – 25,535 – 28th  
 Incorporated Communities  
 Madison, Danville,  
 Whitesville, Sylvester  
 Principal Waterways  
 Coal River, Little Coal River



Mines .....	95
Employees .....	3,495
Estimated Direct Wages .....	\$239,407,500
Severance Tax Receipts .....	\$3,864,227
Production .....	15,751,701
Underground .....	8,541,514
Surface .....	7,210,187
Recoverable Reserves – Tons .....	3,626,756,814
Major Seams	
Cedar Grove, Chilton, Coalburg, Dorothy, Eagle, Hernshaw, Kittanning, No. 2 Gas, Peerless, Powellton, Stockton-Lewiston, Winefrede	
<b>Primary Mines</b>	
<b>Independence Coal Co. (Twilight MTR/Progress) .</b>	<b>2,677,876</b>
<b>Elk Run Coal Co. (Black Castle No. 4).....</b>	<b>2,226,481</b>
<b>Elk Run Coal Co. (Roundbottom Powell).....</b>	<b>1,284,981</b>
<b>Brody Mining, LLC (Brody Mine No. 1) .....</b>	<b>1,129,275</b>
<b>Coal River Energy, LLC (Mine No. 6).....</b>	<b>1,098,873</b>

## Braxton

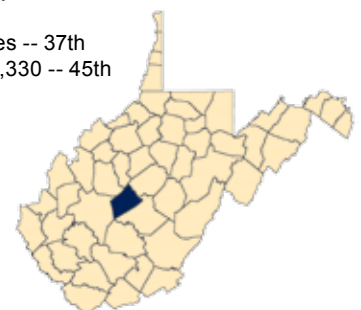
Founded – 1836  
 Named for an American founding father Carter Braxton  
 County Seat – Sutton  
 Area/State Rank – 516 square miles – 14th  
 Population (2000)/State Rank – 14,702 – 39th  
 Incorporated Communities  
 Sutton, Gassaway,  
 Burnsville, Flatwoods  
 Principal Waterways  
 Elk River,  
 Little Kanawha River,  
 Holley River, Birch River



Mines .....	3
Employees .....	63
Estimated Direct Wages .....	\$4,315,500
Severance Tax Receipts .....	\$124,364
Production .....	402,424
Underground .....	402,424
Surface .....	0
Recoverable Reserves – Tons .....	1,110,736,860
Major Seams	
Bakerstown, Lower Kittanning, Pittsburgh	
<b>Primary Mines</b>	
<b>Brooks Run Mining Co., LLC (Saylor B Mine).....</b>	<b>369,533</b>
<b>Brooks Run Mining Co., LLC (Jackson Bridge) .....</b>	<b>32,891</b>

## Clay

Founded – 1858  
 Named for U.S. Senator Henry Clay  
 County Seat – Clay  
 Area/State Rank – 344 square miles -- 37th  
 Population (2000)/State Rank – 10,330 -- 45th  
 Incorporated Communities  
 Clay  
 Principal Waterway  
 Elk River



Mines .....	2
Employees .....	279
Estimated Direct Wages .....	\$19,530,000
Severance Tax Receipts .....	\$382,667
Production .....	1,009,204
Underground .....	91,545
Surface .....	917,659
Recoverable Reserves – Tons .....	1,823,182,122
Major Seams	
Coalburn, Lower Kittanning, Upper Kittanning	
<b>Primary Mines</b>	
<b>Fola Coal Co., Inc. (Surface Mine #1).....</b>	<b>917,659</b>
<b>Little Eagle Coal Co. (Rocklick Coalburg).....</b>	<b>91,545</b>

# County Profiles of West Virginia Coal Country

## Fayette

Founded – 1831  
 Named for French General Marquis de Lafayette  
 County Seat – Fayetteville  
 Area/State Rank – 668 square miles – 6th  
 Population (2000)/State Rank – 47,579 – 11th  
 Incorporated Communities  
 Oak Hill, Fayetteville, Montgomery,  
 Ansted, Mount Hope, Smithers,  
 Gauley Bridge, Meadow Bridge,  
 Pax, Thurmond  
 Principal Waterways  
 Kanawha River, Gauley River,  
 New River



Mines .....	19
Employees .....	750
Estimated Direct Wages .....	\$51,375,000
Severance Tax Receipts .....	\$891,990
Production .....	3,001,780
Underground .....	1,510,727
Surface .....	1,491,053
Recoverable Reserves – Tons .....	1,843,498,742
Major Seams	
Bradshaw, Coalburg, Eagle Firecreek, Gilbert, Kittanning, No. 2 Gas, Peerless, Powellton, Sewell, Stockton-Lewiston	
<b>Primary Mines</b>	
<b>Frasure Creek Mining, LLC (Surface Mine No. 5).....</b>	<b>558,429</b>
<b>Kingston Mining, Inc. (Gen Alum Mine) .....</b>	<b>526,576</b>
<b>Maple Coal Co. (Maple Eagle No. 1).....</b>	<b>474,619</b>
<b>Revelation Energy, LLC (S7 Surface Mine).....</b>	<b>432,943</b>
<b>Kingston Mining, Inc. (Kingston No. 2) .....</b>	<b>349,211</b>
<b>Maple Coal Company (Maple Coal No. 1).....</b>	<b>278,168</b>

## Greenbrier

Founded – 1782  
 Named for reference to local foliage  
 County Seat – Lewisburg  
 Area/State Rank – 1,024 square miles – 2nd  
 Population (2000)/State Rank – 34,453 – 17th  
 Incorporated Communities  
 Lewisburg, White Sulphur Springs,  
 Ronceverte, Rainelle, Alderson,  
 Rupert, Quinwood,  
 Falling Springs  
 Principal Waterways  
 Greenbrier River  
 Meadow River



Mines .....	17
Employees .....	520
Estimated Direct Wages .....	\$35,620,000
Severance Tax Receipts .....	\$406,821
Production .....	1,302,088
Underground .....	787,098
Surface .....	514,990
Recoverable Reserves – Tons .....	633,471,428
Major Seams	
Beckley, Eagle, Pocahontas, Sewell	
<b>Primary Mines</b>	
<b>White Buck Coal Co. (Pocahontas Mine).....</b>	<b>350,607</b>
<b>West Virginia Mine Power, Inc. (Midland Trail No. 1)...</b>	<b>328,418</b>
<b>Greenbrier Smokeless Coal, LLC(Mtneer Pochontas 3)...</b>	<b>174,956</b>
<b>Greenbrier Smokeless Coal, LLC(Mtneer No. 1) .....</b>	<b>144,882</b>
<b>West Virginia Mine Power, Inc. (Midland Trail No. 2)...</b>	<b>116,653</b>
<b>Greenbrier Smokeless Coal, LLC (Buck Lilly Surf).....</b>	<b>107,194</b>
<b>South Fork Coal Co., LLC (Lost Flat Surface).....</b>	<b>79,378</b>

## Grant

Founded – 1866  
 Named for U.S. President Ulysses S. Grant  
 County Seat – Petersburg  
 Area/State Rank – 480.3 square miles – 19th  
 Population (2000)/State Rank – 1,937 – 8th  
 Incorporated Communities  
 Bayard, Petersburg  
 Principal Waterways  
 North Branch of the Potomac  
 River, South Branch of the  
 Potomac River



Mines .....	1
Employees .....	47
Estimated Direct Wages .....	\$3,219,500
Severance Tax Receipts .....	\$75,912
Production .....	133,582
Underground .....	133,582
Surface .....	0
Recoverable Reserves – Tons .....	484,036,352
Major Seams	
Bakerstown, Freeport, Kittanning, Mahoning, Pittsburgh	
<b>Primary Mines</b>	
<b>Vindex Energy Corp. (Bismark Mine).....</b>	<b>133,582</b>

## Harrison

Founded – 1784  
 Named for U.S. President Benjamin Harrison  
 County Seat – Clarksburg  
 Area/State Rank – 417 square miles – 29th  
 Population (2000)/State Rank – 68,652 – 7th  
 Incorporated Communities  
 Clarksburg, Bridgeport, Shinnston,  
 Salem, Stonewood, Nutter Fort,  
 Lumberport, Anmore,  
 West Milford, Lost Creek  
 Principal Waterway  
 West Fork River



Mines .....	8
Employees .....	110
Estimated Direct Wages .....	\$7,535,000
Severance Tax Receipts .....	\$258,987
Production .....	386,925
Underground .....	374,166
Surface .....	12,759
Recoverable Reserves – Tons .....	487,829,480
Major Seams	
Pittsburgh, Redstone	
<b>Primary Mines</b>	
<b>Ten-Mile Coal Co., Inc. (No. 4) .....</b>	<b>370,285</b>

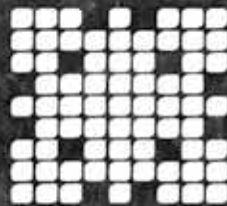
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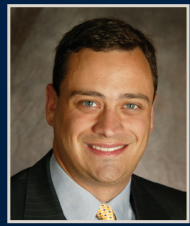
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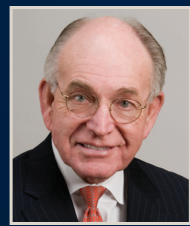
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# County Profiles of West Virginia Coal Country

## Kanawha

Founded – 1788

Named for an Indian term meaning “place of the white rock,” referring to local salt deposits

County Seat – Charleston

Area/State Rank – 911 square miles – 4th

Population (2000)/State Rank – 200,073 – 1st

Incorporated Communities

Charleston, South Charleston,  
St. Albans, Dunbar, Nitro, Marmet,  
Chesapeake, Belle, Clendenin, Pratt,  
East Bank, Cedar Grove, Glasgow, Handley

Principal Waterways

Kanawha River, Elk River, Coal River, Pocatalico River



Mines .....	47
Employees .....	1,381
Estimated Direct Wages .....	\$94,598,500
Severance Tax Receipts .....	\$1,749,717
Production .....	8,768,640
Underground .....	5,616,260
Surface .....	3,152,380
Recoverable Reserves – Tons .....	2,634,708,068
Major Seams	
Cedar Grove, Coalburg, Eagle, Hernshaw, Kittanning, No.2 Gas, Peerless, Powellton, Stockton-Lewiston, Winefrede	
Primary Mines	
<b>Speed Mining, Inc. (American Eagle Mine).....</b>	<b>2,266,211</b>
<b>Midland Trail Energy, LLC (BC No. 1) .....</b>	<b>1,268,917</b>
<b>Mammoth Coal Company (Slabcamp).....</b>	<b>978,796</b>
<b>Remington LLC (Winchester Mine) .....</b>	<b>867,286</b>
<b>Catenary Coal Co., (Samples Mine) .....</b>	<b>686,130</b>
<b>Republic Energy (Empire) .....</b>	<b>550,315</b>
<b>Hanover Resources, LLC (Four Mile No. 2).....</b>	<b>548,722</b>
<b>JMAC Leasing, Inc. (Briar Mountain) .....</b>	<b>391,701</b>
<b>Pritchard Mining Co., Inc. (Four Mile Mine) .....</b>	<b>353,483</b>

## Lincoln

Founded – 1867

Named for U.S. President Abraham Lincoln

County Seat – Hamlin

Area/State Rank – 439 square miles – 25th

Population (2000)/State Rank – 22,108 – 31st

Incorporated Communities

Hamlin, West Hamlin

Principal Waterways

Guyandotte River



Mines .....	1
Employees .....	284
Estimated Direct Wages .....	\$19,454,000
Severance Tax Receipts .....	\$765,087
Production .....	2,522,933
Underground .....	0
Surface .....	2,522,933
Recoverable Reserves – Tons .....	1,043,741,982
Major Seam	
Lower Kittanning	
Primary Mines	
<b>Hobet Mining Inc. (West Ridge III).....</b>	<b>2,522,933</b>

## Logan

Founded – 1824

Named for Mingo an Indian Chief

County Seat – Logan

Area/State Rank – 456 square miles – 22nd

Population (2000)/State Rank – 37,710 – 15th

Incorporated Communities

Logan, Chapmanville, Man,  
West Logan, Mitchell Heights

Principal Waterways: Guyandotte River



Mines .....	44
Employees .....	2,038
Estimated Direct Wages .....	\$139,603,000
Severance Tax Receipts .....	\$3,483,016
Production .....	13,059,543
Underground .....	6,378,276
Surface .....	6,681,267
Recoverable Reserves – Tons .....	3,458,942,279
Major Seams	
Alma, Belmont, Buffalo Creek, Cedar Grove, Chilton, Coalburg, Dorothy, Eagle, Kittanning, Winifrede, Stockton-Lewiston	
Primary Mines	
<b>Mingo Logan Coal Co. (Mountaineer II Mine).....</b>	<b>2,543,759</b>
<b>Apogee Coal Co., LLC (Guyan Surface Mine).....</b>	<b>2,176,132</b>
<b>Aracoma Coal Co., Inc. (Aracoma Alma No. 1) .....</b>	<b>916,316</b>
<b>Cliffs Logan County Coal, LLC (Toney’s Fork Surf.) .....</b>	<b>819,221</b>
<b>Cliffs Logan County Coal, LLC (Powellton No. 1 Mine) .....</b>	<b>753,608</b>
<b>Road Fork Development Co., Inc. (Sandy Gap Surf.) .....</b>	<b>737,174</b>
<b>Mingo-Logan Coal Co. (Spruce No. 1 Mine).....</b>	<b>630,244</b>
<b>Highland Mining Co. (Reylas Surface).....</b>	<b>570,770</b>
<b>Cliffs Logan County Coal, LLC (Dingess Chilton Mine) .....</b>	<b>489,304</b>
<b>Rum Creek Coal Sales, Inc. (Camp Branch Mine) .....</b>	<b>478,294</b>
<b>Aracoma Coal Co., Inc. (Cedar Grove No. 1).....</b>	<b>409,321</b>
<b>White Flame Energy, Inc. (Superior Surface).....</b>	<b>375,887</b>
<b>Stollings Trucking Co., Inc. (Surface No. 4) .....</b>	<b>362,353</b>
<b>Consol of Kentucky, Inc. (MT-41 Mine).....</b>	<b>312,095</b>
<b>Highland Mining Co. (Freeze Fork Surface).....</b>	<b>273,683</b>

## Marion

Founded – 1842

Named For American Revolution Officer Francis Marion

County Seat – Fairmont

Area/State Rank – 311 square miles – 44th

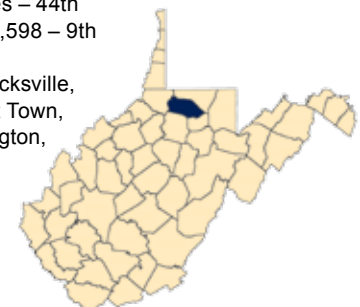
Population (2000)/State Rank – 56,598 – 9th

Incorporated Communities

Fairmont, Mannington, Barracksville,  
Monongah, Rivesville, Grant Town,  
White Hall, Fairview, Farmington,  
Worthington

Principal Waterways

Monongahela River,  
Tygart River,  
West Fork River

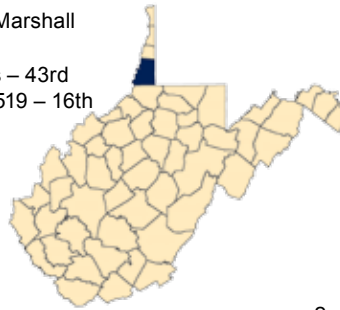


Mines .....	14
Employees .....	1,355
Estimated Direct Wages .....	\$92,817,500
Severance Tax Receipts .....	\$2,624,800
Production .....	11,179,885
Underground .....	11,031,644
Surface .....	148,241
Recoverable Reserves – Tons .....	1,398,656,411
Major Seams	
Kittanning, Pittsburgh, Redstone	
Primary Mines	
<b>Consolidation Coal Co. (Loveridge) .....</b>	<b>5,869,454</b>
<b>Consolidation Coal Co. (Robinson Run No. 95) .....</b>	<b>4,992,046</b>
<b>Dana Mining Company, LLC (Arco No. 1) .....</b>	<b>170,144</b>
<b>L.P. Mineral, LLC (Wilson Surface) .....</b>	<b>148,084</b>
<b>American Bituminous Power Ptr. (Power Plant) .....</b>	<b>157</b>

# County Profiles of West Virginia Coal Country

## Marshall

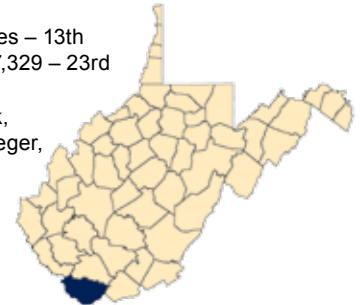
Founded – 1835  
 Named for U.S. Chief Justice John Marshall  
 County Seat – Moundsville  
 Area/State Rank – 312 square miles – 43rd  
 Population (2000)/State Rank – 35,519 – 16th  
 Incorporated Communities  
 Moundsville, Pleasant Valley,  
 McMechen, Benwood,  
 Glen Dale, Cameron  
 Principal Waterway  
 Ohio River



Mines .....	2
Employees .....	1,761
Estimated Direct Wages .....	\$120,628,500
Severance Tax Receipts .....	\$3,528,649
Production .....	17,154,805
Underground .....	17,154,805
Surface .....	0
Recoverable Reserves – Tons .....	1,847,135,686
Major Seam	
Pittsburgh	
Primary Mines	
<b>McElroy Coal Co. (McElroy Mine).....</b>	<b>9,400,486</b>
<b>Consolidation Coal Co. (Shoemaker).....</b>	<b>7,754,319</b>

## McDowell

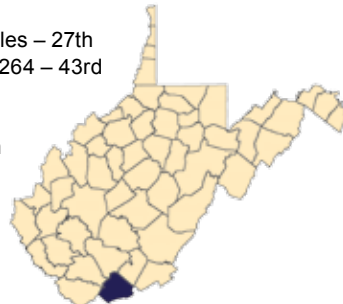
Founded – 1858  
 Named for Virginia Governor James McDowell  
 County Seat – Welch  
 Area/State Rank – 535 square miles – 13th  
 Population (2000)/State Rank – 27,329 – 23rd  
 Incorporated Communities  
 Welch, Gary, War, Northfork,  
 Keystone, Kimball, Davy, Jaeger,  
 Bradshaw, Anawalt  
 Principal Waterway  
 Tug Fork River



Mines .....	78
Employees .....	1,249
Estimated Direct Wages .....	\$85,556,500
Severance Tax Receipts .....	\$1,219,503
Production .....	4,556,210
Underground .....	2,869,406
Surface .....	1,686,804
Recoverable Reserves – Tons .....	1,634,151,667
Major Seams	
Beckley, Ben's Creek, Bradshaw, Eagle, Fire Creek, Gilbert, Pocahontas, Powellton, Red Ash	
Primary Mines	
<b>XMV, Inc. (Mine No. 39).....</b>	<b>534,428</b>
<b>Extra Energy, Inc. (Dry Branch Surface) .....</b>	<b>489,403</b>
<b>Bluestone Coal Corp. (Red Fox Surf. Mine).....</b>	<b>458,375</b>
<b>Brooks Run Mining Co., LLC (Cucumber Mine).....</b>	<b>265,969</b>
<b>Extra Energy, Inc. (Red Hawk Surface).....</b>	<b>203,785</b>

## Mercer

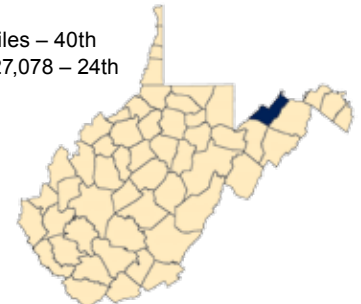
Founded – 1837  
 Named for Revolutionary War Gen Hugh Mercer  
 County Seat – Princeton  
 Area/State Rank – 420.8 square miles – 27th  
 Population (2000)/State Rank – 67,264 – 43rd  
 Incorporated Communities  
 Athens, Bluefield, Bramwell,  
 Matoaka, Oakvale, Princeton  
 Principal Waterways  
 New River, Bluestone River,  
 East River



Mines .....	5
Employees .....	34
Estimated Direct Wages .....	\$2,329,000
Severance Tax Receipts .....	\$243,588
Production .....	160,002
Underground .....	0
Surface .....	160,002
Recoverable Reserves – Tons .....	99,857,486
Major Seams	
Beckley, Bradshaw, Eagle, Fire Creek, Gilbert, Pocahontas, Powellton, Red Ash	
Primary Mines	
<b>Onyx Energy, LLC (McComas Surface No. 1) .....</b>	<b>131,989</b>
<b>Onyx Energy, LLC (Weyanoke Surface) .....</b>	<b>22,397</b>
<b>Southeastern Coal, Inc. (McComas Co. 1 Auger).....</b>	<b>5,616</b>

## Mineral

Founded – 1866  
 Named for local natural resources  
 County Seat – Keyser  
 Area/State Rank – 329 square miles – 40th  
 Population (2000)/State Rank – 27,078 – 24th  
 Incorporated Communities  
 Keyser, Piedmont,  
 Cependale, Ridgely,  
 Elk Garden  
 Principal Waterways  
 North Branch,  
 Potomac River



Mines .....	3
Employees .....	9
Estimated Direct Wages .....	\$616,500
Severance Tax Receipts .....	\$110,169
Production .....	56,757
Underground .....	0
Surface .....	56,757
Recoverable Reserves – Tons .....	360,792,502
Major Seams	
Bakerstown, Elk Lick, Harlem, Kittanning, Mahoning	
Primary Mines	
<b>Duckworth Coal, Inc. (Piedmont).....</b>	<b>38,886</b>
<b>D&amp;L Coal Co., Inc. (Jones Remine).....</b>	<b>17,871</b>

# County Profiles of West Virginia Coal Country

## Mingo

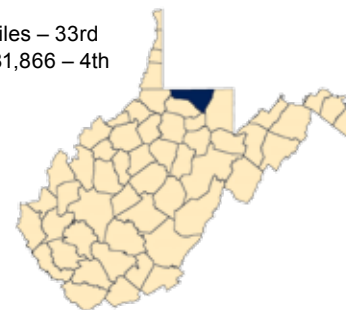
Founded – 1895  
 Named for former Indian tribe  
 County Seat – Williamson  
 Area/State Rank – 424 square miles – 26th  
 Population (2000)/State Rank – 28,253 – 21st  
 Incorporated Communities  
 Williamson, Matewan,  
 Delbarton, Gilbert, Kermit  
 Principal Waterways  
 Tug Fork River



Mines .....	57
Employees .....	1,351
Estimated Direct Wages .....	\$92,543,500
Severance Tax Receipts .....	\$16,668,790
Production .....	8,909,271
Underground .....	2,518,880
Surface .....	6,390,391
Recoverable Reserves – Tons .....	2,999,474,318
Major Seams	
Alma, Cedar Grove, Coalburg, Eagle, Freeport, No. 2 Gas, Williamson, Winifrede	
<b>Primary Mines</b>	
Phoenix Coal-Mac Mining, Inc. (Holden No. 22 Surf.) .....	3,064,762
Consol of Kentucky, Inc. (Peg Fork Surf.) .....	793,229
Spartan Mining Co. (Ruby Energy) .....	631,643
Premium Energy, Inc. (Surface Mine No. 2) .....	586,194
Central Appalachia Mining, LLC (Grapevine East Surf.) .....	460,321
Consol of Kentucky, Inc. (Wiley Mt. 11 Surf.) .....	445,041
Southern WV Resources, LLC (No. 1 Surface Mine) .....	394,997
Rockhouse Creek Development Co. (No. 8) .....	370,929
Cobra Natural Resources, LLC (Mountaineer Alma-A) .....	296,715
CK Coal Corp (Mine No. 5) .....	270,308
White Flame Energy, Inc. (No. 10) .....	231,463

## Monongalia

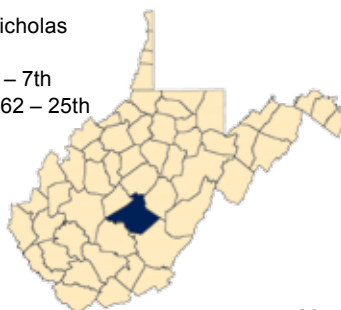
Founded – 1776  
 Named for a derivative of the Monongahela River, and Delaware Indian word for “river of falling banks”  
 County Seat – Morgantown  
 Area/State Rank – 366 square miles – 33rd  
 Population (2000)/State Rank – 81,866 – 4th  
 Incorporated Communities  
 Morgantown, Westover,  
 Star City, Granville,  
 Blacksville  
 Principal Waterways  
 Monongahela River,  
 Cheat River



Mines .....	14
Employees .....	1,348
Estimated Direct Wages .....	\$92,338,000
Severance Tax Receipts .....	\$1,301,541
Production .....	8,710,740
Underground .....	8,317,281
Surface .....	393,459
Recoverable Reserves – Tons .....	956,829,360
Major Seams	
Bakerstown, Kittanning, Redstone, Sewickley	
<b>Primary Mines</b>	
Eastern Associated Coal Corp. (Federal No. 2) .....	4,044,938
Consolidation Coal Co. (Blacksville No. 2) .....	3,222,148
Dana Mining Co., Inc. (Prime No. 1) .....	785,060
Red Bone Mining Co. (Crawdad #1 Portal B) .....	265,135

## Nicholas

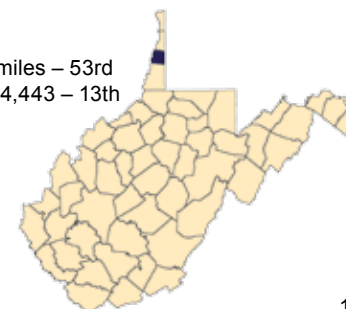
Founded – 1843  
 Named for Virginia Governor Cary Nicholas  
 County Seat – Summersville  
 Area/State Rank – 654 square miles – 7th  
 Population (2000)/State Rank – 26,562 – 25th  
 Incorporated Communities  
 Summersville, Richwood  
 Principal Waterways  
 Gauley River, Meadow River,  
 Cranberry River,  
 Cherry River, Birch River



Mines .....	23
Employees .....	572
Estimated Direct Wages .....	\$39,182,000
Severance Tax Receipts .....	\$752,157
Production .....	2,337,593
Underground .....	1,116,724
Surface .....	1,220,869
Recoverable Reserves – Tons .....	3,359,378,600
Major Seams	
Campbell Creek, Dorothy, Eagle, Gilbert, Kittanning, McQueen, Peerless, Powellton, Sewell	
<b>Primary Mines</b>	
Alex Energy, Inc. (No. 1 Surface Mine) .....	693,588
Alex Energy, Inc. (Jerry Fork Eagle) .....	356,880
White Buck Coal Co. (Grassy Creek No. 1) .....	290,061
Atlantic Leaseco (Lower Muddlety No. 2) .....	209,680
Little Eagle Coal Co., LLC (Ike Fork 5 Block Deep) .....	206,397
White Buck Coal Co. (Hominy Creek) .....	201,272

## Ohio

Founded – 1776  
 Named for Ohio River  
 County Seat – Wheeling  
 Area/State Rank – 108.9 square miles – 53rd  
 Population (2000)/State Rank – 44,443 – 13th  
 Incorporated Communities  
 Bethlehem, Clearview,  
 Valley Grove, West Liberty,  
 Wheeling  
 Principal Waterways  
 Ohio River

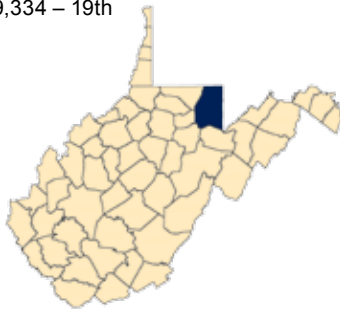


Mines .....	1
Employees .....	312
Estimated Direct Wages .....	\$21,372,000
Severance Tax Receipts .....	\$1,078,292
Production .....	4,391,905
Underground .....	4,391,905
Surface .....	0
Recoverable Reserves – Tons .....	336,292,256
Major Seams	
Pittsburgh	
<b>Primary Mines</b>	
Tunnel Ridge, LLC. (Tunnel Ridge) .....	4,391,905

# County Profiles of West Virginia Coal Country

## Preston

Founded – 1818  
 Named for Virginia Governor James Perry Preston  
 County Seat – Kingwood  
 Area/State Rank – 651 square miles – 8th  
 Population (2000)/State Rank – 29,334 – 19th  
 Incorporated Communities  
 Kingwood, Terra Alta,  
 Masontown, Rowelsburg,  
 Reedsville, Newburg,  
 Tunnelton, Albright,  
 Brandonville,  
 Bruceton Mills  
 Principal Waterway  
 Cheat River



Mines .....	2
Employees .....	14
Estimated Direct Wages .....	\$959,000
Severance Tax Receipts .....	\$129,741
Production .....	10,920
Underground .....	10,920
Surface .....	0
Recoverable Reserves – Tons .....	1,391,830,363
Major Seams	
Bakerstown, Elk, Freeport, Kittanning, Mahoning, Pittsburgh	
<b>Primary Mines</b>	
<b>Double H Mining Co., Inc. (Plum) .....</b>	<b>10,920</b>

## Raleigh

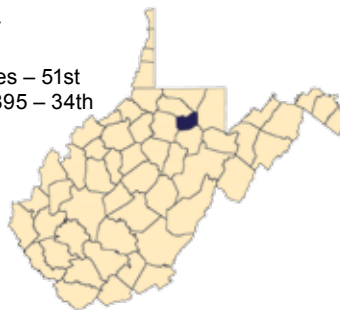
Founded – 1850  
 Named For – Englishman Sir Walter Raleigh  
 County Seat – Beckley  
 Area/State Rank – 609 square miles – 10th  
 Population (2000)/State Rank – 79,220 – 5th  
 Incorporated Communities  
 Beckley, Mabscott, Sophia,  
 Lester, Rhodell  
 Principal Waterways  
 Coal River, Clear Fork River,  
 Marsh Fork River



Mines .....	42
Employees .....	2,102
Estimated Direct Wages .....	\$143,987,000
Severance Tax Receipts .....	\$2,241,204
Production .....	8,989,408
Underground .....	4,422,375
Surface .....	4,567,033
Recoverable Reserves – Tons .....	1,608,671,947
Major Seams	
Beckley, Eagle, Fire Creek, Hernshaw, No. 2 Gas, Pocahontas, Powellton, Sewell, Stockton-Lewiston	
Primary Producers	
<b>Elk Run Coal Co., Inc. DBA Rep. En. (Republic Energy) ...</b>	<b>1,909,331</b>
<b>Arch Coal (Beckley Pocahontas) .....</b>	<b>1,099,395</b>
<b>Simmons Fork Mining, Inc. (Ewing Fork No. 1) .....</b>	<b>987,856</b>
<b>Alex Energy, Inc. (Edwight Surface Mine).....</b>	<b>834,750</b>
<b>Marfork Coal Co., Inc. (Slip Ridge Cedar Gro) .....</b>	<b>749,496</b>
<b>Marfork Coal Co., Inc. (Horse Creek Eagle).....</b>	<b>387,350</b>
<b>Marfork Coal Co., Inc. (Allen Powellton Mine).....</b>	<b>385,181</b>
<b>Pocahontas Coal Company, Inc. (Affinity Mine).....</b>	<b>351,632</b>
<b>Rhino Eastern, LLC (Eagle No. 1).....</b>	<b>349,715</b>
<b>Marfork Coal Co., Inc. (Brushy Eagle).....</b>	<b>307,826</b>

## Taylor

Founded – 1844  
 Named for U.S. Senator John Taylor  
 County Seat – Petersburg  
 Area/State Rank – 175.6 square miles – 51st  
 Population (2000)/State Rank – 16,895 – 34th  
 Incorporated Communities  
 Fleminton, Grafton  
 Principal Waterways  
 Tygart Valley River,  
 Three Fork Creek



Mines .....	3
Employees .....	357
Estimated Direct Wages .....	\$24,454,500
Severance Tax Receipts .....	\$27,237
Production .....	202,693
Underground .....	188,379
Surface .....	14,314
Recoverable Reserves – Tons .....	613,961,430
Major Seam	
Bakerstown, Freeport, Kittanning, Mahoning, Pittsburgh	
<b>Primary Producers</b>	
<b>ACI Tygart Valley (Leer Mine).....</b>	<b>188,379</b>
<b>Rebekah Coal Co., Inc. (Rager Surface Mine).....</b>	<b>14,314</b>

## Tucker

Founded – 1856  
 Named for Virginia Judge Henry St. George Tucker  
 County Seat – Parsons  
 Area/State Rank – 421 square miles – 27th  
 Population (2000)/State Rank – 7,321 – 53rd  
 Incorporated Communities  
 Parsons, Davis, Thomas,  
 Hendricks, Hambleton  
 Principal Waterways  
 Cheat River,  
 Blackwater River



Mines .....	2
Employees .....	255
Estimated Direct Wages .....	\$17,467,500
Severance Tax Receipts .....	\$569,606
Production .....	2,371,969
Underground .....	2,266,735
Surface .....	105,234
Recoverable Reserves – Tons .....	172,654,154
Major Seam	
Upper Freeport	
<b>Primary Producers</b>	
<b>Mettiki Coal, LLC (WV) (Mettiki E Mine) .....</b>	<b>2,266,735</b>
<b>Beacon Resources, Inc. (Beacon Knob Mine) .....</b>	<b>105,234</b>

# County Profiles of West Virginia Coal Country

## Upshur

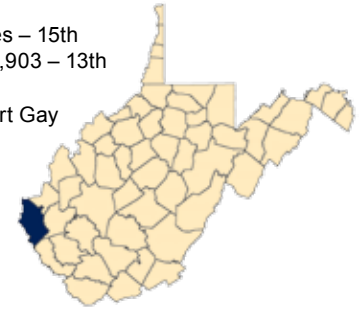
Founded – 1851  
 Named for U.S. Cabinet Secretary Abel Parker Upshur  
 County Seat – Buckhannon  
 Area/State Rank – 355 square miles – 35th  
 Population (2000)/State Rank – 23,404 – 39th  
 Incorporated Communities  
 Buckhannon  
 Principal Waterways  
 Little Kanawha River,  
 Buckhannon River,  
 Middle Fork River



Mines .....	6
Employees .....	203
Estimated Direct Wages .....	\$13,905,500
Severance Tax Receipts .....	\$185,915
Production .....	1,246,237
Underground .....	1,213,765
Surface .....	34,472
Recoverable Reserves – Tons .....	1,668,286,801
Major Seams	
Alma, Elk Lick, Kittanning, Peerless, Pittsburgh, Redstone	
<b>Primary Producers</b>	
<b>Carter Roag Coal Co. (Pleasant Hill) .....</b>	<b>857,719</b>
<b>Wolf Run Mining Co., Inc. (Imperial).....</b>	<b>351,718</b>
<b>Nesco, Inc. (Lane Ridge Surface).....</b>	<b>34,472</b>
<b>Roaring Creek Coal Co., LLC (Roaring Creek Mine) .....</b>	<b>4,328</b>

## Wayne

Founded – 1842  
 Named for American Revolution General “Mad” Anthony Wayne  
 County Seat – Wayne  
 Area/State Rank – 512 square miles – 15th  
 Population (2000)/State Rank – 42,903 – 13th  
 Incorporated Communities  
 Kenova, Ceredo, Wayne, Fort Gay  
 Principal Waterways  
 Ohio River, Big Sandy River



Mines .....	7
Employees .....	628
Estimated Direct Wages .....	\$43,018,000
Severance Tax Receipts .....	\$879,101
Production .....	3,831,669
Underground .....	3,375,390
Surface .....	456,279
Recoverable Reserves – Tons .....	779,431,738
Major Seam	
Coalburg	
<b>Primary Producers</b>	
<b>Rockspring Dev., Inc. (Camp Ck. Mine No. 1) .....</b>	<b>2,608,249</b>
<b>Argus Energy WV LLC (Copley Tace Surf.).....</b>	<b>456,279</b>
<b>Argus Energy WV LLC (Deep Mine No. 7) .....</b>	<b>335,639</b>
<b>Argus Energy WV LLC (Deep Mine No. 8) .....</b>	<b>303,776</b>
<b>Argus Energy WV LLC (Mine 10).....</b>	<b>127,726</b>

## Webster

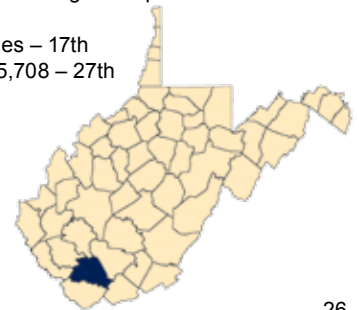
Founded – 1860  
 Named for U.S. Senator Daniel Webster  
 County Seat – Webster Springs  
 Area/State Rank – 556 square miles – 12th  
 Population (2000)/State Rank – 9,719 – 46th  
 Incorporated Communities  
 Webster Springs, Cowen,  
 Camden-On-Gauley  
 Principal Waterways  
 Gauley River, Elk River,  
 Williams River



Mines .....	4
Employees .....	330
Estimated Direct Wages .....	\$22,605,000
Severance Tax Receipts .....	\$422,542
Production .....	2,583,631
Underground .....	1,424,868
Surface .....	1,158,763
Recoverable Reserves – Tons .....	3,647,930,010
Major Seams	
Eagle, Kittanning, Peerless, Pocahontas, Sewell, Stockton-Lewiston	
<b>Primary Producers</b>	
<b>Brooks Run Mining Co. (Poplar Ridge No. 1).....</b>	<b>1,306,713</b>
<b>Brooks Run Mining Co. (Seven Pines).....</b>	<b>990,241</b>
<b>Arch Coal (Eastern Complex) .....</b>	<b>168,522</b>
<b>Brooks Run Mining Co. (Cove Mountain Deep) .....</b>	<b>118,155</b>

## Wyoming

Founded – 1850  
 Named for Delaware Indian word meaning “wide plain”  
 County Seat – Pineville  
 Area/State Rank – 502 square miles – 17th  
 Population (2000)/State Rank – 25,708 – 27th  
 Incorporated Communities  
 Mullens, Oceana, Pineville  
 Principal Waterways  
 Guyandotte River



Mines .....	26
Employees .....	1,248
Estimated Direct Wages .....	\$85,488,000
Severance Tax Receipts .....	\$1,203,398
Production .....	5,393,560
Underground .....	4,233,412
Surface .....	1,160,148
Recoverable Reserves – Tons .....	2,402,549,479
Major Seams	
Alma, Beckley, Ben’s Creek, Cedar Grove, Douglas, Eagle, Gilbert, Kittanning, Matewan, Pocahontas, No. 2 Gas, Red Ash, Sewell, Stockton-Lewiston	
<b>Primary Producers</b>	
<b>Pinnacle Mining Co., LLC (Pinnacle Mine) .....</b>	<b>2,432,878</b>
<b>Dynamic Energy, Inc. (Coal Mtn. No. 1 Surf).....</b>	<b>964,257</b>
<b>Double Bonus Coal Co. (No. 65).....</b>	<b>511,557</b>
<b>Spartan Mining Co (Road Fork #51 Mine).....</b>	<b>279,269</b>
<b>Brooks Run Mining Co. (Still Run No. 3).....</b>	<b>259,736</b>
<b>Brooks Run Mining Co. (Wyoming No. 2).....</b>	<b>210,721</b>
<b>Cliffs Logan Coal LLC (Lower War Eagle Mine).....</b>	<b>184,405</b>

# Surface Mining Rules and Regulations

BY JASON BOSTIC

Vice President, West Virginia Coal Association

**C**HARLESTON — Coal mining is one of the most heavily-regulated industrial activities that occurs anywhere in the world. Mining operations must obtain multiple permits from multiple state and federal regulatory agencies before coal extraction can begin. These permits cover everything from basic geologic principles that govern the design of the operation, to the coal mining techniques and practices used to recover the coal through the close out and final reclamation of a mining site. The most important environmental programs related to coal mining include the Surface Mining Control and Reclamation Act and various sections of the Clean Water Act.

## Surface Mining Control and Reclamation Act

Passed by Congress in 1977, this all-encompassing regulatory program addresses every environmental facet of surface and underground mining operations. The Surface Mining Control and Reclamation Act (SMCRA), created an entire federal regulatory program specifically for coal mining operations. SMCRA also created a new federal regulatory authority, the Office of Surface Mining Reclamation & Enforcement (OSM), to permit and inspect mining operations across the country. SMCRA's permitting requirements are comprehensive and require the submission of detailed information regarding all aspects of mine design, operation and reclamation.

SMCRA also established a process by which states could assume the primary authority for the environmental regulation of mining activities through a process referred to as "primacy". In a primacy state, the permitting and regulation of mining operations is maintained by a state environmental protection agency with oversight from OSM.

State primacy programs must meet the standards established under SMCRA with respect to program stringency, permitting requirements and environmental inspection frequency.

If a state fails to meet these SMCRA requirements, OSM can revoke primacy and takeover the inspection and permitting of mines within that state. West Virginia has primacy under the federal surface mining laws and maintains its own set of detailed and comprehensive statutes and regulations.

The West Virginia Department of Environmental Protection's (WV DEP) Division of Mining & Reclamation administers West Virginia's mining regulatory program. In addition to meeting the requirements of SMCRA, West Virginia's mining regulatory program is considerably more stringent than the federal regulations. West Virginia has more stringent controls on reclamation, post-mining land uses and disturbed areas than OSM or our surrounding states. West Virginia also has more



stringent requirements on blasting, with an entire division of WV DEP dedicated solely to inspection and monitoring of surface mine production and underground mine development blasting.

In addition to regulating active mining, SMCRA imposes strict requirements on reclamation of mined areas. For example, SMCRA requires that all surface mined areas be returned to approximate original contour (AOC), unless a mine operator can demonstrate that leaving a mine site configured with flat, or more gentle relief will lead to a beneficial post-mining land use such as industrial or housing development.

SMCRA also requires that all mine operators furnish financial instruments to guarantee the completion of reclamation and land restoration following the completion of coal recovery. Coal companies typically post bonds with the agency to cover the cost of reclamation should an operator go out of business. Any shortfall between the actual cost of reclamation and the bonds is covered by a bonding pool that is funded with a tax on active coal production. The bonds are not released by the agency until the company has demonstrated compliance with the approved reclamation plan.

## Clean Water Act

In addition to SMCRA, the coal mining industry is subject to three separate regulatory programs established under the federal Clean Water Act: The section 402 water discharge program, the section 404 "dredge and fill" program and the section 401 water quality certification programs which are explained below.

### Clean Water Act Section 402

Under section 402 of the 1972 Clean Water Act, coal mining is categorized as a "point source" category meaning that all discharges from mining operations must comply with established water quality effluent limitations. Any and all discharges must comply with these

effluent limitations which are established by individual states to protect the existing use of streams. Mining companies must obtain section 402 permits before initiating any activity that will result in a discharge to a stream. The majority of the discharges from coal mines are simply storm water runoffs which must be routed to a discharge point where compliance with a section 402 permit is monitored. The federal Environmental Protection Agency has delegated administration of the section 402 program to the State of West Virginia.

### Clean Water Act Section 404

Section 404 of the Clean Water Act regulates the placement of dredged or fill material into waters of the United States. Coal mining operations that result in the construction of valley fills or coal refuse structures must obtain permits from the U.S. Army Corps of Engineers for these activities, if they affect navigable waters. The Corps, with oversight from the federal Environmental Protection Agency, administers this regulatory program. The permit review for a section 404 activity includes a detailed analysis of alternatives to assure that the same activity could not be accomplished without the placement of fill material in streams. The section 404 regulations also require that an applicant minimize the amount of fill material that is placed in a stream.

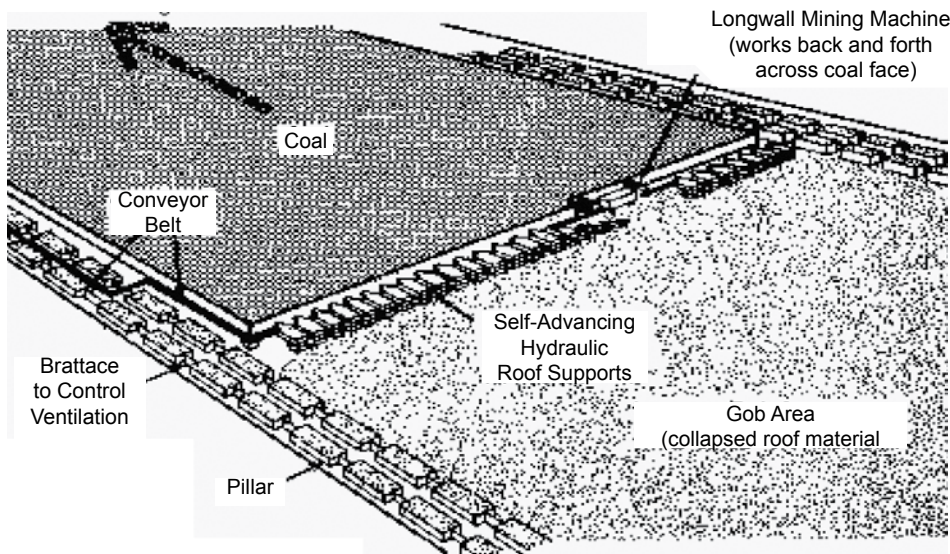
### Clean Water Act Section 401

Referred to as "state water quality certification", section 401 of the Clean Water Act is a state-administered program related to the federally-administered section 404 program. Under section 401, certification no placement of fill material can occur under a section 404 permit unless the state certifies that the placement of that fill material will not result in a violation of applicable state water quality standards. In order to construct valley fills or coal refuse structures, the coal industry must obtain section 401 certification after the Corps has issued a section 404 permit.♦



Underground mine processing plant

## A Portrait of Underground: The Process in Photos

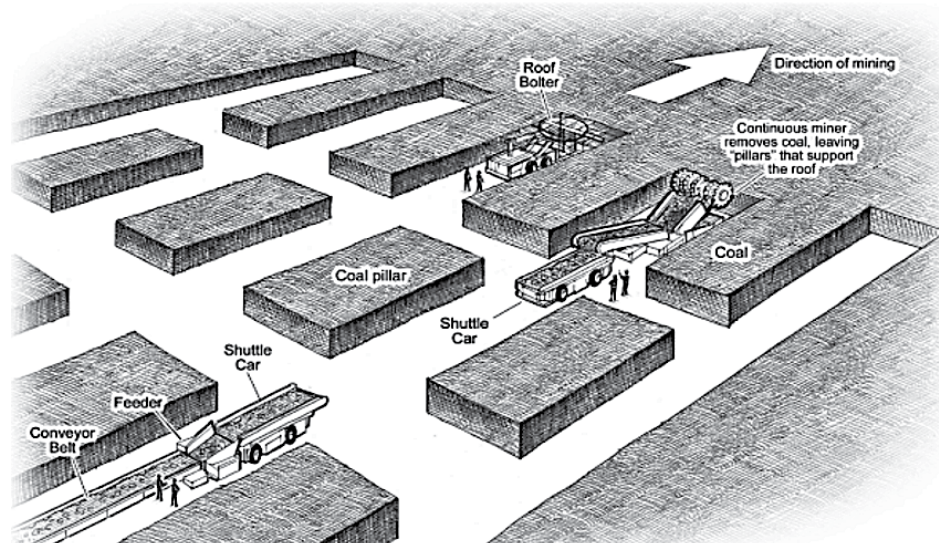


Longwall shearing

**Longwall Mining** In longwall mining, a horizontal cut is made across a long section of the coal seam, with the machinery moving along to create a large open void underground.



Underground continuous miner



**Room and Pillar** In room-and-pillar mining, large "rooms" are cut out of the seam leaving "pillars" in place to support the roof.



Underground continuous miner

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## Why Do We Surface Mine?

### *A Primer on How Mining Methods are Selected to Extract Coal Seams in West Virginia*

BY JASON BOSTIC

Vice President, West Virginia Coal Association

#### Geology and Safety

The decision to develop a coal reserve using surface or underground mining is governed by a combination of several geologic, safety, economic, physical, regulatory and engineering considerations. For example, if a coal reserve is located very deep in the geologic column surface mining is simply not a viable recovery method.

These coal seams, which are typically accessed using slope or shaft entries, can only be recovered using underground mining methods. The deeper the coal reserve, the less likely that it can be recovered using surface mining methods. **Coal seams that are “thin” or less than three feet thick cannot be recovered using underground mining methods regardless of the seam’s location in the geologic column** (see Figures 1, 2 and 3).

However, the same seams, if located close enough to the surface can be recovered using surface mining methods. Conversely, coal seams that are located closer to the surface of the land and outcrop along high ridges may be thick enough for underground mining extraction but the rock overlying the seam is usually fractured and unconsolidated making safe underground mining impossible.

**Generally, 150-200 feet of overburden or “cover” above a coal seam is needed for competent, stable rock formations that would allow for safe underground mining.**

Additionally, if coal seams occur too close

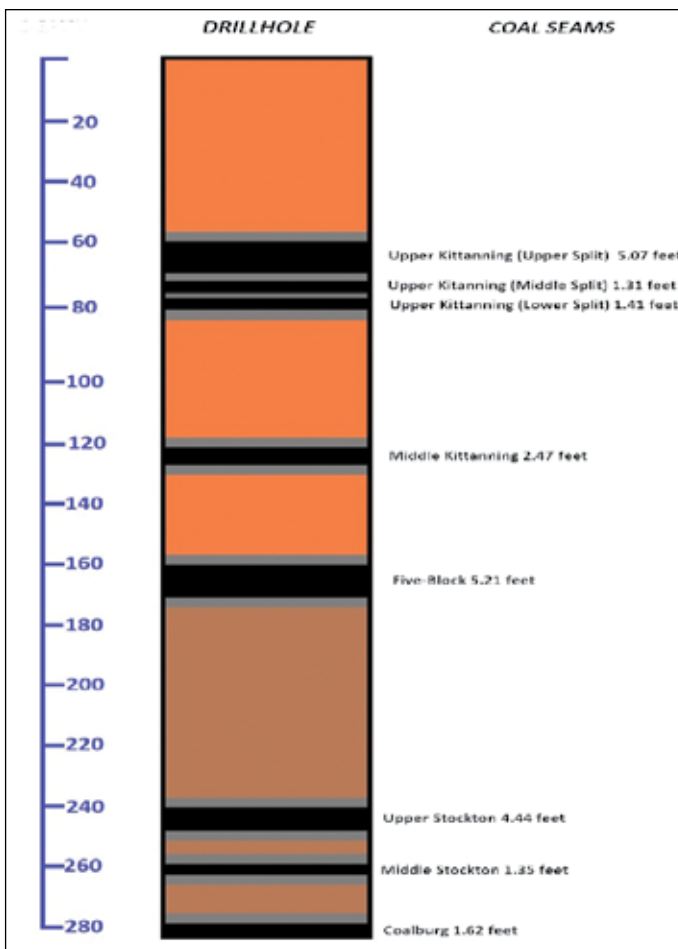


Fig. 1

Cross section of coal seams typically extracted using surface mining methods.

See “SURFACE MINE” Page 51

## SURFACE MINE

from page 50

together, underground extraction of one coal seam will “sterilize” or make the other coal seams inaccessible for underground mining.

### Topography

Provided that other geologic factors such as seam height and minimum cover are satisfied a given coal seam may still be unrecoverable through deep mining because it lacks sufficient seam width for safe underground extraction. The shape of mountain ridges determines the extent of coal seams located above the valley floor. Peaks and low gaps predominate the terrain of West Virginia, with high ridges and steeper, narrower valleys occurring in the southern part of the state as illustrated in figures 3 and 4.

A coal seam within one of these narrow ridges may only measure 400 to 500 feet from one side of the ridge to the other, which is not sufficient width for the development of an underground mine. **A minimal configuration for underground mine development requires at least 600 feet of seam width from one side of the ridge to the other.** The minimum width is necessary for the proper development of underground entries (tunnels) within the coal seam that are spaced no less than 50 feet apart and to maintain a barrier of at least 100 feet between the deep mine works and the sides of the ridge.

The minimum spacing of the entries and width of the barriers is required to maintain proper underground ventilation and to support the overlying rock above the coal seam.

Figure 5 depicts a typical 108 acre ridge top coal reserve area. The Five Block seam shown in the illustration is thick enough to be extracted using underground mining methods.

However, in certain areas the seam is too close to the surface for deep mining and in other areas the coal seam is not wide enough to allow for underground mine development.

As shown in the illustration, only about 10 acres of the original 108 acre reserve could be recovered using underground coal mining methods. Surface extraction would allow recovery of virtually the entire reserve block.

### Synergies Between Underground And Surface Mining

Surface and underground mining methods rarely exist in a vacuum as single sources of coal production for a mining company, especially in the Central Appalachian / Southern West Virginia coal region.

Instead, several different forms of mining provide coal to a centrally located preparation plant and coal loading facility (such as a railroad car loading facility or “loadout”). The preparation plant, loadout and its associated underground and surface mines are referred to collectively as a “mining complex.”

See “SURFACE MINE” Page 52



“Highwall” at an active surface mining operation showing coal seams and overlying rock formations.

Fig. 2



Fig. 2



Steeply sloped rugged terrain of Southern West Virginia and Central Appalachia with high, narrow ridges throughout the landscape.

Fig. 3

## SURFACE MINE

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Figure 6 is a coal preparation plant and railroad loadout at a mining complex.

The use of several different mining methods at a complex is indicative of coal seam characteristics and geology present in West Virginia.

As previously explained, these factors dictate whether coal seams will be removed using underground or surface mining techniques. The ability to blend coal from different seams and different extraction methods allows mining companies to supply a range of products to satisfy the specific requirements of different customers and allows greater flexibility in responding to changing market conditions and coal quality specifications.

Additionally, the ability to separate impurities from coal mined using surface mining methods “in pit” offsets the higher costs associated with cleaning virtually all the coal from underground mining.

Very few coal seams in Appalachia and West Virginia are comprised entirely of coal.

Most of the recoverable coal seams in this region have small seams of non-coal materials such as shale and clay that are imbedded within, above or below the coal seam. The presence of these non-coal materials in a coal seam affects the coal’s heating values, air emission properties and other factors that generally influence the usability of the coal.

For example, the presence of non-coal impurities will affect a coal’s ability to meet air emission standards imposed on electric utilities and could make the coal unusable as thermal coal for electrical generation.

Coal quality is even more important for steel makers where impurities in coal can lead to weaker, fracture-prone and unusable iron and steel. ♦



Fig. 4

Excavation at an active mountaintop surface coal mine showing narrow ridges common in West Virginia and Central Appalachia. There are several coal seams between the lowest mined elevation and the top of the ridge.

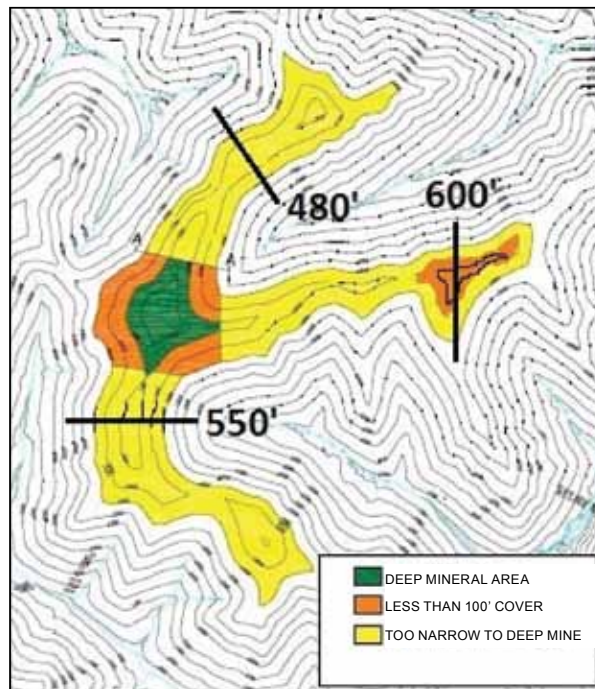


Fig 5

Typical ridge top coal reserve area.

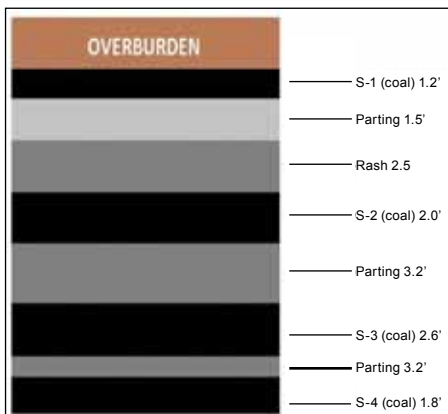


Fig. 7

An illustration of a typical seam in Appalachia showing the inherent non-coal impurities that exist within the coal seam. In underground mining, all of this material would be extracted along with the coal. Separating these impurities from the coal at a preparation plant adds substantially to the production costs of underground mining.



Fig. 6

Coal preparation plant and railroad loadout at a West Virginia surface and underground mining complex.



## Post-Mine Land Use: Building a New West Virginia

BY CHRIS HAMILTON  
Senior Vice President

**G**ILBERT – In the fall of 2011, Mingo Central Comprehensive High School officially opened its doors to approximately 500 students from all across Mingo County.

Mingo Central is a comprehensive 9-12 high school on a beautiful 90 acre site along the King Coal Highway overlooking the mountains of Mingo County. It is a 172,535 square foot school containing approximately 60 classrooms, a dining room seating 488 students, a band room for 80 band members, an auditorium seating 400 people and a gymnasium seating 2,160 fans.

The state-of-art school is situated on a former surface mine that was responsible for the enormous amount of site preparation work and reconfiguring of the land to accommodate the school, access roads and necessary infrastructure. The new school is clearly developed into one of the premier high schools within our state.

Alpha Natural Resources and the School Building Authority joined local, county and state officials in developing this project and it is an excellent example what can be accomplished on former mine sites with careful planning and an eye towards the future.

Mingo Central Comprehensive High School becomes the latest edition to our state's post mine land portfolio where a little vision, planning, local leadership and broad community support came together to create a state-of-the-state educational facility and the continued viability of a former mine site.

This site joins a growing number of public commercial, industrial and recreational facilities throughout West Virginia that is supporting a new found dimension of our state's economy and job base.

In fact the West Virginia Office of Coal-field Community Development reports more than 13,000 jobs that have been created and sustained on post mine land sites. New uses for surface mined lands include residential



*A housing development on a former mine site.*



*Portions of the Hatfield-McCoy Trail covers former mine sites, bringing thousands to Appalachia.*

development, tourism, energy, schools, government facilities and manufacturing.

Sites such as the Medical Center in Weirton to Cabela's in Wheeling to Mylan Park in Morgantown, the State Prison in Fayette, ERT Convention Center in Logan and the FBI Center in Clarksburg are all on former

mine land. Joining the Mingo County Consolidated High School are the Mount View High School in McDowell County as well as the Coal City Elementary and Independence middle and high schools in Raleigh County

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## POST-MINE

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as examples of former mine land being used to improve education across the state.

These former surface mine sites have been critically important, providing land for new industrial, residential and recreational purposes, and many of these projects are able to take advantage and utilize the infrastructure, roads, buildings and electric service established and used during active mining.

More than 10,000 acres of land that was surfaced mined is home to the National Boy Scout Jamboree which opened this year and accommodated 50,000 Boy Scouts at the Adventure Center. The economy of Fayetteville has thrived as the direct result of this facility which offers recreational and adventure opportunities that are second to none.

The natural landscape of West Virginia can be characterized usually as a narrow valley floor—between 100 and 1000 feet wide—surrounded by steep mountainsides that are often a 50-degree slope or more.

What this means is that any development is naturally limited by the landscape. Overcoming this limiting factor is an expensive undertaking. Moving the amount of earth necessary to build a road, a shopping center, a school or an industrial park requires an investment of hundreds of thousands, if not millions, of dollars before construction of the facility or the road even begins.

Accompanying this article is a partial list of facilities either located on former mine lands or in the process of construction. The sites run the gamut of development, including everything from golf courses to hospitals, from schools to industrial parks and from prisons to residential areas. The businesses and facilities located on these sites provide literally thousands of good, quality jobs. These are jobs that would likely not have existed without the land provided at low, if any, cost by the coal industry.

Several new sites around the state have been done in partnership with The West Virginia National Guard. Aircraft drop zones, military equipment and training facilities and training obstacle courses have been established in Clay, Logan, and Kanawha Counties.

Some critics of surface mining claim that little of the land used for surface mines is potentially developable. However, a look at any of the land use plans of coalfield counties shows this claim is simply not valid.

For example, according to the Logan County Land Use Plan, approximately 65 percent of the surface mine sites in the county are within five miles of a four-lane highway. These sites are also close to air transportation and are within a day's drive of most of the East Coast.

These sites have the potential to be very attractive to economic development, but the post-mine land use also includes residential, educational and recreational uses. There are many examples of residential, educational and recreational development on these sites.

In West Virginia, the little hollows along



*A sporting complex allows users plenty of space to play.*



*The Summit Bechtel Family National Scout Reserve in Fayette County, W. Va.*



*The challenging Pete Dye Golf Course is on a former mine site.*

which most people live often flood, wiping away lives and life's work in just minutes. Like industrial and commercial development, the people of West Virginia build their homes along these little hollows because there are no other good options. Building a home on a 50 degree slope is nearly impossible and building on the mountaintop requires providing your own access and utilities.

Former mine lands can be configured for residential development. At Bright Mountain

in Nicholas County, a former mine site provides home sites for more than 100 homes. In Weirton, almost 80 percent of the community is on former mine land.

The calculation is a simple one—West Virginia needs to diversify its economy. And in order to do that, the state needs readily developable lands. Surface mining provides that developable land. Therefore surface mine lands fulfill a need the state has to provide good quality, high paying jobs today and in the future. ♦

# Post-Mine Land Use



The FBI Center, Clarksburg



Mylan Park, Morgantown



Earl Ray Tomblin Lodge and Convention Center, Raleigh County

## Post-Mine Land Uses Throughout West Virginia

- ◆ King Coal Highway/Coalfields Expressway
- ◆ McDowell County Industrial Park
- ◆ Mingo County Industrial Park/Airport
- ◆ Federal Prison (McDowell County)
- ◆ The Highlands/Cabela's (Wheeling)
- ◆ Columbia Wood Products (Nicholas County)
- ◆ Bright Mountain (Nicholas County)
- ◆ Twisted Gun Golf Course (Mingo County)
- ◆ Pete Dye Golf Course (Harrison County)
- ◆ Southwest Regional Jail (Logan County)
- ◆ Logan Airport (Logan County)
- ◆ Robert C. Byrd High School (Harrison County)
- ◆ Mount View High School (McDowell County)
- ◆ Mylan Park (Monongalia County)
- ◆ Beckley YMCA Soccer Complex (Raleigh County)
- ◆ FBI Complex (Harrison County)
- ◆ Mingo Central High School along King Coal Highway
- ◆ Morgantown Mall (Monongalia County)
- ◆ Joint Base West Virginia (Clay, Logan, Kanawha, Mingo Counties)
- ◆ Summit Bechtel Scout Camp (Fayette County)



Forestland on a former mine site

## State Mining Operations Honored for Environmental Stewardship

### *Consol Coal Co. Claims Greenlands Award; Coal-Mac Receives Turkey Habitat Award*

**C**HARLESTON – Consolidation Coal Company and their Turkey Gap Refuse Impoundment in Mercer County claimed the state’s top award for environmental stewardship – the Greenlands Award – at the West Virginia Coal Association’s 40th Annual West Virginia Mining Symposium held March 6 - 8 in Charleston.

Thirteen other companies were also recognized for their commitment to the environment at the Symposium, one of the nation’s top coal industry events.

“We would like to congratulate Consolidation Coal Company and all the other companies who were recognized for their hard work and responsible reclamation,” said Bill Raney, president of the West Virginia Coal Association. “Each of these companies goes far beyond what is required to restore former

mined lands. We always say coal miners are the real environmentalists. They don’t just talk about doing something... they go out and do it. They do it because this is their home. We are proud to represent these companies and the 50,000 coal mining families who live and work here in West Virginia.”

In presenting the Greenland’s Award to Consol, West Virginia Coal Association Vice President Jason Bostic said, “This award is for their work in reclaiming a refuse area, preparation plant and a deep mine complex. After reclamation of the mining complex was completed, Consol initiated reclamation of the impoundment in 2011 and finished it in 2012, leaving an aesthetically pleasing and highly functional end result.”

Coal-Mac’s New Ridge East Surface

Mine in Mingo County took home the Turkey Habitat Award for its work in restoring former surface mine land for wildlife habitat. Bostic said Coal-Mac’s work “combined the best of mountaintop mining, returning the area to a post-mine land use of hay land and pasture while integrating the development of a habitat for wild turkeys.” Bostic noted that the site had already hosted several guided turkey hunts for area youth.

“These winners demonstrate the importance our industry places on being environmentally responsible,” Bostic said. “Our companies are at the cutting edge of the science of environmental reclamation, recognized the world over for their work.”

The following companies also took home individual awards for environmental restoration at the Symposium:

#### **Surface Mine Reclamation South Award**

Alex Energy, Inc.’s Whitman Surface Mine (Logan Co.)

#### **Coal Refuse Reclamation South Award**

Pocahontas Coal Co.’s East Gulf Complex (Raleigh Co.)

#### **Deep Mine Reclamation South Award**

Consol Coal Co.’s Itmann #3 Mine (Wyoming Co.)

#### **Refuse Reclamation North Award**

Wolf Run Mining Co.’s Reed Hollow Refuse (Upshur Co.)

#### **Surface Mine Reclamation North Award**

Ten-A Coal Co.’s Koon Surface Mine (Marion Co.)

#### **Drainage and Sediment Control South Award**

Met Resources, LLC’s McComas Surface Mine #1 (Mercer Co.)

#### **Refuse Reclamation North Award**

Kanawha Energy Co.’s Jackson Hollow Refuse (Barbour Co.)

#### **Pool Dewatering Project Award**

Mingo-Logan Coal Co.’s Mountain Laurel Complex (Boone & Logan Cos.)

#### **Drainage and Sediment Control Award**

Apogee Coal Co.’s Guyan Surface Mine (Logan Co.)

#### **Haulroad Construction South Award**

Met Resources, LLC’s McComas Haulroad (Mercer Co.)

#### **AML North Award**

Collins Building & Contracting (Tucker Co.)

#### **AML South Award**

Eastern Arrow, Sugar Branch Burning Refuse (Logan Co.)

# Thirty-Eight W.Va. Mining Operations Earn Safety Awards

## *Elk Run Coal and McElroy Coal Company Take Top Honors*

**C**HARLESTON – Thirty-eight West Virginia mining operations have been recognized by the industry for their safety efforts in 2012. The awards were announced during the Mountaineer Guardian Awards Luncheon as part of the West Virginia Coal Association’s 40th Annual West Virginia Mining Symposium, held in Charleston earlier this year.

“Our industry is committed to sending our coal miners home at the end of their shifts,” said West Virginia Coal Association President Bill Raney. “Our member companies work hard every day to meet the highest standards of work-

place safety and our goal is simple – zero accidents. We believe this is an attainable goal.”

Elk Run Coal Company’s Republic Energy operation in Raleigh County took the top safety award bestowed upon surface mine operations – the **Bart B. Lay Milestones in Safety Award**. The McElroy Coal Company’s McElroy Mine in Marshall County claimed the top honor for underground mining operations in the state – the **Eustace E. Frederick Award**.

Chris Hamilton, Vice President of the West Virginia Coal Association, said, “Both Elk Run’s Republic Energy operation and McElroy Coal’s McElroy Mine have demonstrated

a commitment above and beyond what is required by state and federal regulations. They have established an example for the rest of the industry, showing their true dedication to the safety of their employees, and they are greatly deserving of this award.”

The West Virginia Coal Association’s Mountaineer Guardian Awards are presented each year to mining companies that have demonstrated a commitment to safety standards. Inspectors for the West Virginia Office of Mine Health, Safety & Training nominate companies based on numerous criteria.

The list of award winners is provided below.

### Northern West Virginia

#### UNDERGROUND MINES

Dana Mining Company, LLC, Arco No. 1,  
Marion County  
Consolidation Coal Company, Loveridge,  
Marion County  
Carter Roag Coal Company, Pleasant Hill,  
Randolph County

#### PREPARATION PLANTS

McElroy Coal Co., Ireland Loadout,  
Marshall County  
Carter Roag Coal Co., Star Bridge Plant,  
Randolph County  
Wolf Run Mining Co. Inc., Sentinel Preparation Plant,  
Barbour County

#### QUARRY OPERATIONS

Southern WV Asphalt, Kelly Mountain,  
Randolph County

### Southern West Virginia

#### UNDERGROUND MINES

Brooks Run Mining Company, LLC, Cucumber Mine,  
McDowell County  
RS Mining, Inc, Caretta #3,  
McDowell County  
Resurrection Coal Company, Inc., Mine No. 2,  
McDowell County  
Cliffs Logan County Coal, LLC, Lower War Eagle,  
Wyoming County  
Mingo Logan Coal Co., Mountaineer II,  
Logan County  
Rockhouse Creek Development Co., No. 8,  
Mingo County  
CK Coal Corp., Mine No. 5,  
Mingo County  
Coal River Energy, LLC, Fork Creek No. 1,  
Boone County  
White Buck Coal Co., Grassy Creek No. 1,  
Nicholas County  
White Buck Coal Co., Hominy Creek,  
Nicholas County

### Southern West Virginia

Mammoth Coal Co., Slabcreek,  
Kanawha County  
Pocahontas Coal Co., Josephine No. 3,  
Raleigh County  
Brooks Run Mining Co., Saylor B,  
Braxton County

#### PREPARATION PLANTS

Coal Clean LLC, Wet Branch Preparation Plant,  
Kanawha County  
Litwar Processing Co. LLC, Litwar,  
McDowell County  
Eastern Associated Coal Corp., Rock Lick Siding,  
Boone County  
Apogee Coal Co. LLC, Franco Plant/Loadout,  
Logan County  
Mingo Logan Coal Corp., Cardinal Preparation Plant,  
Logan County  
Phoenix Coal-Mac Mining, Inc., No. 22 Prep Plant,  
Logan County

#### SURFACE MINES

Extra Energy, Inc, Red Hawk,  
McDowell County  
Phoenix Coal Mac Mining, Inc., Holden No. 22,  
Mingo County  
Consol of Kentucky, Peg Fork,  
Mingo County  
White Flame Energy, Inc., Superior,  
Logan County  
Highland Mining Co., Reylas,  
Logan County  
Coal River Energy, LLC, Mine No. 6,  
Boone County  
Simmons Fork Mining, Ewing Fork No. 1,  
Raleigh County  
Pocahontas Coal Co., Tommy Creek Mine South,  
Raleigh County  
Revelation Energy, LLC, S7 Surface Mine,  
Fayette County

#### INDEPENDENT CONTRACTORS

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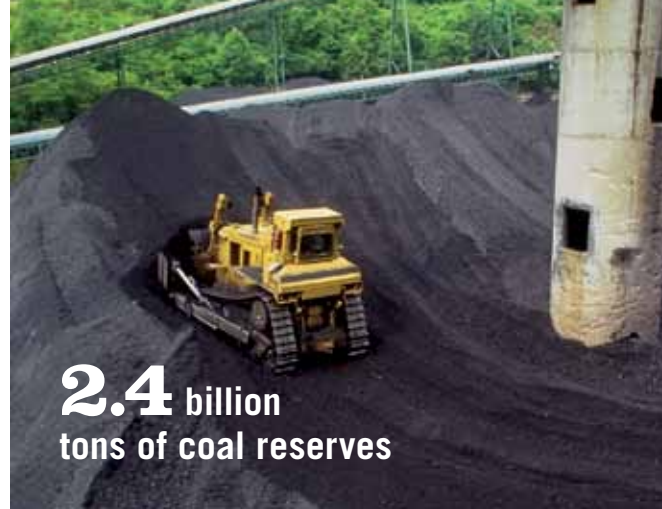


WTRF WVNS

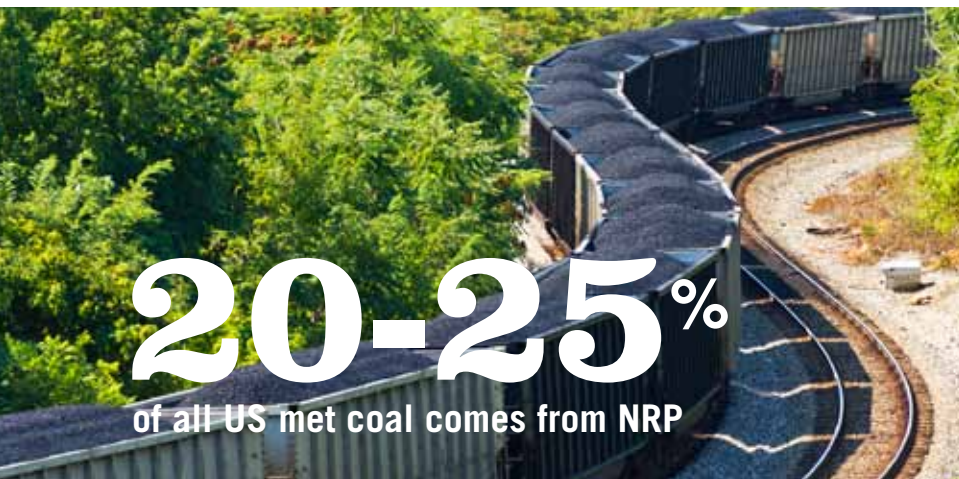




**500** million tons of aggregate reserves



**2.4** billion tons of coal reserves



**20-25%**  
of all US met coal comes from NRP



**\$28** million in infrastructure revenues



**Newly** acquired soda ash assets



**>1,000** oil & gas wells

# Right Path For **Tomorrow.**

At Natural Resource Partners, we recognize that the global energy landscape may look different tomorrow than it does today. And we're ready for it. In addition to managing and leasing proven coal reserves, we have also made accretive acquisitions designed to diversify our assets and revenue streams, including aggregates and industrial minerals, infrastructure, and oil and gas mineral properties. This not only ensures that we are well-positioned to grow our business and seize more opportunities, in more markets, than ever, but also demonstrates clearly that no matter what the future may hold, we're on the right path, with the right strategy, to get there.

## Association Report

# White, Long and Statler Inducted into 2013 Class of West Virginia Coal Hall of Fame

In ceremonies conducted as part of the 16th Annual Induction Ceremony for the West Virginia Coal Hall of Fame, three new members were received. They included: John B. Long, a founder of Long-Airdox Company, Marmon Research and the John B. Long Company; Gary G. White, president of the International Resource Partners Division of James River Coal Company and former president and CEO of the West Virginia Coal Association; and, Benjamin M. Statler, chairman of Gulf Coast Partners.

The three new members were recognized not only for their contributions to the coal industry but also for their contributions to the state of West Virginia and its people.

Following are their biographies:

### JOHN B. "JACK" LONG

Chairman, John B. Long Company  
President, Marmon Research  
President, Long-Airdox

Born in Devorken, Kentucky on May 12, 1918 to Armistead Rosser Long and Martha McCauley Long, Jack was the youngest of three children. Jack's father was an engineer with the Monongahela Land & River Coal Company and the Pittsburgh Coal Company in western Kentucky and was also a farmer.

In 1926, Jack's father moved the family to Scarbro, West Virginia, where he took a job as a mine superintendent with The New River Company.

During this time, Jack studied hard in school and graduated from Oak Hill High School in 1934 at the age of 16. From there, he went to Hampton-Sydney College in Virginia and later to the University of North Carolina, where he would graduate in 1938 with a degree in economics. While Jack was away at college, his father left The New River Company and formed the Long Super Mine Car Company in Fayetteville, West Virginia. Following his college graduation, Jack went to work for his father and began his lifelong career in the coal industry.

Jack's career, however, was interrupted in 1942 by a call to active duty from the Navy. Commissioned an Ensign with an engineering specialty, he served in Norfolk, New York, Washington and Houston until 1946. During those years he met and married Katherine Wicker. "Kitty" was the daughter of John Wicker, an attorney and state senator from Richmond, Virginia. At the time, she was serving as a Red Cross agent at the Norfolk Navy Hospital.

At the conclusion of the war, Jack rejoined his father as president of the Long Super Mine Car Company. Together, they made an aggressive team, supplying new inventions to the mining industry. While his father focused on specific inventions related to chain conveyor systems, Jack focused on developing entirely new "system" inventions for the mining industry. Jack's father would remain active with the company until his death in 1953 at the age of 81.

At that point, Jack moved the company from

Fayetteville to Oak Hill and renamed it The Long Company.

The Long Company, continued to grow and prosper with industry recognition of its piggyback or bridge conveyor. The development of this type of mechanized loading represented nothing short of a revolution in mining. It would be complimented by the invention of loading machines and belt conveyors. With the ability to supply all these mining components in a single sale, The Long Company's Full Dimension System would put it on the map as a nationally recognized mining machinery manufacturer.

In 1960, the Long Company was sold to Marmon Herrington Company and merged with Airdox, a long-established producer of compressed air cylinders for use as explosive charges, to form a new company – Long-Airdox. Jack was named president of both Marmon-Herrington and Long-Airdox. The new company was much larger than The Long Company. It not only included overseas operations in England and France, but also a network of warehouses in the U.S. coalfields. To deal with the large lump created by the use of Airdox products, Jack developed the Rosco Feeder Breaker. Like the piggyback, the feeder breaker, represented nothing short of a revolution in underground mining and rapidly became a standard feature of nearly every mine in North America.

In 1970, Jack retired from active duty as president of Long-Airdox. Marmon Research, a newly created research and development company dedicated to machinery development for Long-Airdox was formed and Jack assumed a position as its president. In the nearly 16 years that would follow, Jack would develop a line of permissible mantrips and rockdusters, diesel auger miners and a series of low-height roof bolters.

In 1986, Jack's experiences as a coal operator in the 1980s led him to believe the world of bulk materials sampling needed an overhaul. He purchased the assets of Marmon Research from the Marmon Group and formed John B. Long Company with his son, Armistead Mason "Army" Long, and used it to sell the previously-developed mantrips and rockdusters while developing a new patented belt sampler for use in coal sampling.

Like so many of Jack's inventions, the sampler design was an entire system aimed at advancing the state-of-the-art. Not only did it meet with immediate success in the mining industry, but it found equal success when applied at power plants, ports and a large number of non-coal sites including steel mills and aggregate plants. The John B. Long Company was highly successful and Jack and Army sold it in 2000. Known as JBLCo today, the company continues to thrive with over 500 installations in 15 countries and is a leader of the bulk materials sampling equipment industry worldwide.

Paralleling his work as a mining machinery inventor were Jack's experiences as a coal operator. In the 1950s, these included Cedar Creek

Mining Company, a small company owned by The Long Company; BLM Development, another small mining company operated with life-long friends George Evans and Morgan Massey. In the 1970s, Jack would team with another lifelong friend, Joe McQuade, to take over Appalachian Resources Corporation, later selling it to Ruhrkohle-Stinnes in late-1974. In the 1980s, Jack and his son Army teamed with the Baugues family to purchase James Spur, Inc. from Champion International. Jack and his son would later sell their interests in James Spur and its affiliates in early 1989.

Jack and Kitty were married for 62 years and had four children, John B. Long Jr. is professor and applied economics coordinator at the University of Rochester's William Simon Business School. Kate R. Long is an award-winning author, writer and musician in West Virginia. Mary Long Piotrowski is Rector of St. Andrew's Episcopal Church in Sedona, AZ and Armistead M. Long is now an attorney in Lafayette, LA.

Jack's industry activities included active service in the American Mining Congress as a member, director and chairman of the Manufacturers' Division and a term as president of the West Virginia Coal Mining Institute. Outside industry, Jack's activities included service as a trustee of Hampton Sydney College and Trustee of the Chi Phi Educational Trust.

### GARY G. WHITE

President, International Resources, LLC  
South Charleston, WV

Gary G. White was born in Logan, WV on February 9, 1950, the son of Rev. Glenn and the late Catherine White. Gary graduated from Logan High School from an Advanced Learning Program of a typical college preparatory curriculum combined with a 1200-hour electronics curriculum. He graduated from Marshall University with a Bachelor of Arts degree.

Gary began his career in the mining industry as an electrician in a mine equipment rebuild shop. With the passage of the Coal Mine Health and Safety Acts of 1969 and 1974, for the first time electricians were required to be "certified." Gary was employed by the Logan County Board of Education as a Mine Electrician Instructor in its vocational education program. Shortly after, he was hired by Island Creek Coal Company as a maintenance training instructor. He continued as an adjunct faculty member with the county conducting certification classes for mining in the region. After having helped a number of employees of Amherst Coal Company become certified, Herbert Jones invited Gary to become director of training at Amherst. During his 12-year term with Amherst, Gary served as its human resource manager and ultimately manager of underground mining.

Gary left Amherst to become president and CEO of the West Virginia Coal Association. He served in that capacity until the spring of 1992,

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## HALL OF FAME

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when James H. “Buck” Harless invited him to become president and COO of International Industries, Inc. At that time, International Industries consisted of coal, lumber, manufacturing and real estate divisions in several states.

Soon thereafter, Mr. Harless promoted Gary to CEO. In 2007, International Industries sold its coal division to Lightfoot Capital Partners, a private equity firm, forming International Resource Partners, LP. Gary served as president and CEO of IRP until the company was sold to James River Coal Company. Gary currently serves as president of the International Resource Partners division of James River Coal Company.

Throughout his career, White has continued to be actively involved in the state and his community as an officer or board member for both public and private organizations. They include Board of Directors, United Bancshares; Board of Directors, West Virginia Media, LLC; Board of Directors, Cabell-Huntington Hospital; Board of Directors, Marshall University Foundation; Board of Directors and Past Chairman, West Virginia Coal Association; Board of Directors, Larry Joe Harless Community Center Foundation; Board of Directors, Logan County Charitable Foundation.

Gary has an continues to be involved with state government, having served as an advisor to former Gov. Gaston Caperton, campaign advisor and transition director for former Gov. Cecil Underwood and campaign advisor to current Gov. Earl Ray Tomblin.

White has been honored and received numerous professional recognitions and awards, including election to the Business Hall of Fame,

Elizabeth McDowell Lewis College of Business, Marshall University(2003) and the City of Hope “Spirit of Life” Award (2003). He was also named to the Business Hall of Fame of West Virginia University in 2007.

Gary is married to the former Jo Ann Evans of Logan, WV. They currently live in Logan. The White’s had one daughter, Jennifer, who passed in 2011. Gary and Jo Ann are most grateful for a great career in the mining industry and for the encouragement and support of their parents, co-workers the Herbert and Charles Jones family and most particularly James H. “Buck” Harless.

### BENJAMIN M. STATLER

Chairman, Gulf Coast Partners  
Naples, Florida

Benjamin M. “Ben” Statler is a native of Monongalia County. He graduated from Clay-Batelle High School in 1969 and then from West Virginia University with a B.S. in Mining Engineering in 1973. He received an honorary doctorate from WVU in 2009.

A third-generation coal miner, he began his career as a laborer with Consolidation Coal Company in 1969. Statler worked the night shift at the Pursglove mine while attending West Virginia University. Upon graduating, Statler rose through the ranks at Consol, holding positions of section foreman, assistant superintendent and technical assistant to the senior vice president of mining for the Eastern Region, and in 1996, he became senior vice president of mining for Consol.

In 1999, Statler retired from Consol to start his own mining company, PinnOak Resources, LLC, acquiring assets from U.S. Steel Corporation. Statler served as president and CEO of PinnOak until he sold the company in 2007.

Currently, Statler is co-founder and CEO of Gulf Coast Capital Partners, a private investment firm founded in 2008 that is focused on

acquiring and providing capital to middle market companies in special situations.

Statler serves on the Visiting Committee for the Statler College, the WVU Department of Mining Engineering and on the WVU Foundation Board of Directors. He is a member of the school’s campaign team and is involved in several professional organizations in the coal mining community. He has been inducted into the WVU Academy of Distinguished alumni and in 2012 he received WVU’s highest service award – the Order of Vandalia – for his far-reaching contributions to the University. He is also a member of the West Virginia Business Hall of Fame.

Statler has been extensively involved with his community through involvement and leadership in numerous organizations, including the Wheeling Area Chamber of Commerce, Wheeling Symphony Orchestra, the Ohio Valley Medical Center, the Upper Ohio Valley United Way, Easter Seals, Christ United Methodist Church and the Boy Scouts of America.

Statler and his wife, Jo, have an outstanding history of philanthropic giving, especially to West Virginia University. In January 2012, the couple pledged \$34 million – the largest single gift commitment ever given to the University. Because of this gift, the University renamed the engineering college the Benjamin M. Statler College of Engineering and Mineral Resources.

The couple’s gifts over the years, now totaling nearly \$60 million, have gone to support the Mary Babb Randolph Cancer Center, including the establishment of “Bonnie’s Bus” a mobile mammography unit that provides services through rural West Virginia, the new Erickson Alumni Center, the basketball practice facility and other athletic capital improvements. The couple have been named Most Loyal West Virginians by the University and Outstanding Philanthropists by the WVU Foundation. ♦



James W. “Bill” Anderson  
Stonie Barker, Jr.  
B.R. “Bobby” Brown  
James F. “Jim” Bunn  
Omer Bunn  
C.E. “Jim” Compton  
Josef Ehrenguber  
Jack Fairchild, Sr.  
J. Robert Fletcher  
Eustace Frederick  
Frank L. Gaddy  
Victor N. Green  
Benjamin C. Greene  
Lawson Hamilton  
James H. “Buck” Harless  
J. Brett Harvey  
Thomas W. Howard

Elmo Hurst  
Tracy W. Hylton, Sr.  
Robert Jeran  
Charles T. Jones  
Herbert E. Jones, Jr.  
Joseph F. Joy  
James Justice Sr  
James L. Laurita, Sr.  
John E. “Jack” Katlic  
James L. Magro  
E. Morgan Massey  
Johnson C. McKinley  
C. Wes McDonald  
Joseph L. McQuade  
Purnal “Judge” McWhorter  
Marshall Miller  
Richard C. Mullins  
Don Nicewonder

F.B. “Fil” Nutter  
Allen S. Pack  
Syd S. Peng  
William N. Poundstone  
Robert H. Quenon  
Robert L. “Bob” Raines  
Raymond E. Salvati  
John L. Schroeder, Jr.  
Gerold R. Spindler  
James R. Thomas, II  
Stephen G. Young  
Royce J. Watts  
Charles T. Holland  
Paul Morton  
Johnny “Jack” Long  
Gary G. White  
Benjamin M. Statler



## Beckley's Exhibition Coal Mine

BY BRYAN BROWN

Today's mining industry is a technologically advanced, highly orchestrated process conducted by some of the most skilled professionals in the world. It relies on computers, machines, and of course, a well trained workforce. It has grown to this level of sophistication through an evolutionary process of trial and error, research and ingenuity, and nearly two centuries of mining experience.

To get a firsthand look at West Virginia's coal history and heritage, one only need visit Beckley, WV to take a walk into mining's past. The Beckley Exhibition Coal Mine and Youth Museum offers visitors a fascinating look at how mining was done and how those that worked in the mines lived.

Transporting visitors back to the late 1800s and early 1900s, the Beckley Exhibition Coal Mine, set within Beckley's New River Park, offers a full scale recreation of a West Virginia coal camp and, as the centerpiece, features an actual coal mine available for all to tour. The mine operates on a seasonal schedule, opening on April 1 and closing November 2, and open from 10:00 a.m. to 6:00 p.m.

Guests begin their visit by entering the attraction's main building designed like a company store. Displayed for all to see are a variety of tools and relics used both in the mining process and in the coal camps of southern West Virginia. It is within this building that guests purchase their tickets for the mine tour.

The Beckley Exhibition Coal Mine and Youth Museum features the following attractions:

### Exhibition Mine

For those that have always wanted to tour an actual coal mine, here's your opportunity. Visitors board the coal mine "man trip" and are shuttled under the mountain on a 1,500-foot tour through various mined out areas. Veteran miners serve as tour guides and stop the shuttle at various points of the tour to explain how mining was conducted, the tools that were used, the challenges faced by the working miner and how that differs from mining processes of today.

The underground tour lasts approximately 40 minutes and visitors are asked to bring a jacket as the temperature is always 58 degrees inside the mine.

### Superintendent's House

Most coal camps had a home specifically built for the mine superintendent. The Beckley Exhibition Mine features a "super's home" that was moved from Skelton, West Virginia, and reconstructed on the property. This three story structure is one of a kind. The first floor consists of a formal living room, dining room, kitchen and super's office. The second floor offers a master bedroom and nursery. The house is outfitted with period decorations, furnishings and appliances.

As many coal camps also included a doctor's office, barbershop and post office, the Exhibition Mine has set up a period reproduction of these businesses within the Superintendent's House. Each of these displays feature the tools of the trade and is an accurate recreation of how they might have looked during the period.

### Coal Company House

Typically, the coal company would build and then rent houses to the miners. The miners and their families rented a house suitable for the size of their family. The Exhibition Mine has restored a coal camp house, which provides a fascinating glimpse into the living conditions of miners and their families.

Additionally, there is a Miner's Shanty on the Exhibition Mine property. This one-room dwelling came from a coal camp in Helen, West Virginia, and dates back to the 1920s. This facility was used by single miners living away from home while working in the coal mines during the week.

See "EXHIBITION" Page 63



Superintendent's house

**EXHIBITION**  
from page 62

**Coal Camp School**

In the coalfields of West Virginia in the early 1900s a miner's children may likely have attended a one or two room school situated in the coal camp. While the coal company owned the school building, they were operated by the local board of education.

The Exhibition Mine features a re-created one room school based on a similar structure constructed in 1925 in Helen, West Virginia. This life size exhibit comes complete with all the equipment one might find in a school of that era.

The students were seated by grade with the first graders in the front row and the other grades behind them. Only residents of the coal camp were allowed to attend the schools that were owned by the coal company.

**Coal Camp Church**

The church was the center of the coal camp community. It was where the people came together to worship God, as well as to conduct social, civic and business gatherings.

For an inspiring look into the religious spirit of West Virginia's coal camps, the Exhibition Mine reconstructed the Pemberton Coal Camp Church, originally built in the Coal Camp of Pemberton, West Virginia in 1921.

**Youth Museum of Southern West Virginia**

Located just footsteps away from the Exhibition Coal Mine, the Youth Museum of Southern West Virginia is open to the public year round and available at any time for pre-arranged tour groups.

The Youth Museum's main gallery is made up of four railroad boxcars. The central exhibit area features an average of three different exhibits yearly. Designed to entertain as well as educate, the exhibits range from "T-Rex", "Bats", and "Artist in the Studio" to "Page after Page", an award winning chil-



*Youth Museum*

dren's authors presentation.

Group tours include a visit to the Museum's Planetarium. Seasonal programs highlight constellations, visible planets and special celestial events.

Behind the Museum's main building stands the Mountain Homestead. Developed to enrich history studies, the Museum has recreated a typical settlement on the Appalachian frontier.

Trained interpreters explain the importance of each reconstructed historical building. Visit the weaver's shed – complete with loom and spinning wheels. In the two-story log house, groups listen as the guide explains the many interesting artifacts and antiques made and used by the rugged individuals that settled this region. Step back in time as you enter the one room school and experience

"readin', writin', and rithmetic'" as it used to be. The barn, blacksmith shop, and general store all help to complete this rich historical journey of the late 19th century.

Both the Exhibition Coal Mine and the Youth Museum have gift shops offering unique coal figurines, homemade fudge, traditional and educational toys, local crafts, and books.

The Beckley Exhibition Coal Mine and Youth Museum offer a rewarding and educational experience for people of all ages and interests. The complex is located just 2 ½ miles from the Harper's Road Interchange (Exit 44) off of Interstate 77. One price encompasses all activities at both the Exhibition Mine and the Youth Museum during the summer months. For costs and other information, contact the Exhibition Coal Mine at 304-256-1747. ♦



*Coal Camp Church*



*Coal Camp School*



*Coal Company House*

# West Virginia Leads Nation in Coal Exports

Gov. Earl Ray Tomblin has announced that for the third consecutive year West Virginia exports reached a record level. Statistics from the U.S. Department of Commerce show the state's exports grew from \$9 billion in 2011 to \$11.3 billion in 2012. West Virginia companies exported to 36 countries in 2012.

"Last year, West Virginia's exports grew by 25 percent, surpassing the national growth rate of 4.6 percent," said Gov. Tomblin. "Exports are a valuable contributor to our state's economic growth and stabil-

ity. While coal continues to be our traditional strength, our top exports also included manufactured products such as plastics, chemicals, machinery and components for medical, automotive and aerospace applications."

"Coal exports grew 40 percent, increasing from \$5.3 billion in 2011 to \$7.4 billion in 2012. West Virginia coal accounted for 49 percent of U.S. coal exports in 2012. The top markets for West Virginia coal with the largest growth were Japan (growing from \$29 million in 2011 to \$395 million in 2012) and China (growing from \$93 million in 2011 to \$567 million in 2012)."

COUNTRY	W.VA. COAL EXPORTS (2012)
1. NETHERLANDS	\$801 million
2. ITALY	\$698 million
3. INDIA	\$689 million
4. CHINA	\$567 million
5. BRAZIL	\$558 million
6. SOUTH KOREA	\$520 million
7. UNITED KINGDOM	\$457 million
8. TURKEY	\$403 million
9. JAPAN	\$395 million
10. FRANCE	\$383 million

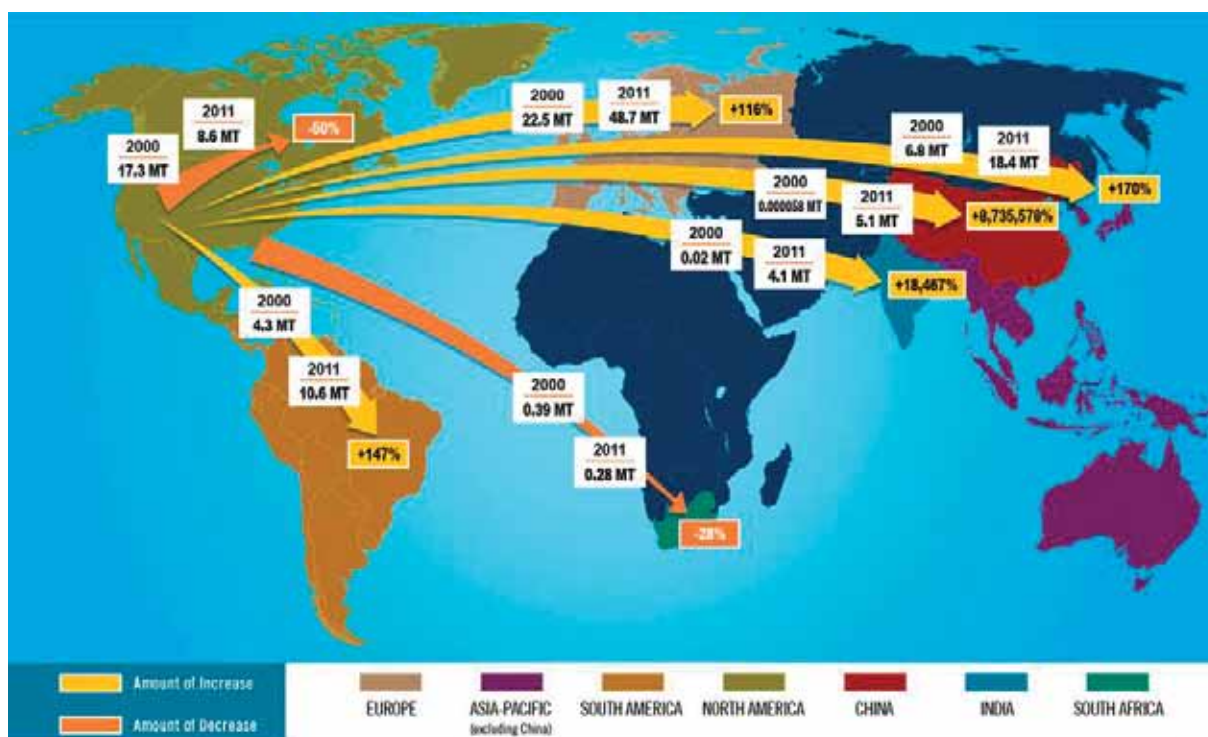
## 2011 TOP FIVE (in billions) COAL EXPORT STATES

<b>West Virginia</b>	<b>\$5.3</b>
<b>Pennsylvania</b>	<b>\$2.7</b>
<b>Alabama</b>	<b>\$2.2</b>
<b>Louisiana</b>	<b>\$1.6</b>
<b>Virginia</b>	<b>\$1.3</b>

West Virginia coal was exported to 36 countries in 2012. The state was the by far the largest exporter of coal in the country.

Source: U.S. Department of Commerce

## 2000-2011 U.S. Coal Exports (Figures shown in millions)



Source: McCoskey's



## Coal Forums Outline Importance of Exports

Earlier this year, Gov. Earl Ray Tomblin announced that for the third consecutive year West Virginia exports have reached record levels, with coal exports leading the way. At a series of Coal Forums held around the state this summer, state and industry officials have taken the message of the importance of the coal export market to the state's economy, to the people of our state.

West Virginia exports grew from \$9 billion to \$11.3 billion between 2011 and 2012 and according to the U.S. Department of Commerce, coal led the way. Coal exports grew 40 percent, increasing from 5.3 billion in 2011 to 7.4 billion in 2012 and West Virginia coal accounted for 49 percent of U.S. coal exports in 2012. The top markets for West Virginia coal with the largest growth were Japan (growing from 29 million in 2011 to 395 million in 2012) and China (growing from 93 million in 2011 to 567 million in 2012).

"Last year, West Virginia's exports grew by 25 percent, surpassing the national growth rate of 4.6 percent," said Gov. Tomblin in making the announcement in March. "Exports are a valuable contributor to our state's economic growth and stability. While coal continues to be our traditional strength, our top exports also included manufactured products such as plastics, chemicals, machinery and components for medical, automotive and aerospace applications."

The Coal Forums take a closer look at the factors that led to the increase in coal exports and whether that trend would continue into the future. Meetings have been held in

Charleston and Wheeling during the months of July and August respectively.

### Opportunities and Challenges

Since the Obama Administration began its assault on the nation's coal industry in January 2009, forcing the shutting down of hundreds of coal-fired power plants and implementing what amounted to a moratorium on the issuance of new mining permits – particularly in Appalachia, the domestic coal industry has been struggling to adapt. Combined with an artificially low and unsustainable market price for natural gas and a milder than normal winter, production of steam coal (used for electric generation) has dropped. The one bright spot has been the production of metallurgical coal used in steel making, which has been in high demand, particularly in the developing nations of Asia, such as China and India.

Despite being in the middle of an economic slump deeper than the United States, Europe has been switching from nuclear and natural gas for electric generation and has been increasing its importing of American steam coal, which has helped moderate the policy-driven slump in demand here in the United States.

"It's impacting all of us," Tomblin said during his opening remarks at the Coal Forum in Charleston. Tomblin added that the state's finances have become very tight as coal production has been on the decline.

"It's really frustrating to me when someone can sit in an office in Washington and make decisions about our future and what's going on without looking at the economic impact," Tomblin said. "...They don't look at those tears in

the wives' eyes when their husbands come home and say 'I've lost my job. The mine's closing down.'"

The result of these policies, Tomblin said do not take into account the local economic impacts of a hobbled coal industry.

Chris Hamilton, senior vice president of the West Virginia Coal Association and co-chairman of the Coal Forum, said it is a tragic irony that West Virginia coal miners are being laid off when demand for coal worldwide is increasing and is even projected to surpass oil by 2015.

"Exports have always been a substantial part of our state's mining portfolio," Hamilton said. "Over the past couple of decades, our state has led the nation in coal exports -- accounting for nearly 1 of every 2 tons that leave our countries' borders. So, amid all the gloom and doom of today, this has been the one area that has provided us with optimism going forward...representing somewhat of a sliver of silver.

"And this growth is projected to be sustained well into the foreseeable future," Hamilton continued. "Thus, opportunity abounds and as a state, we are poised to play a major role in what everyone says will be substantial increases in sea borne coal around the globe over the next decade. We are in close proximity to multiple ports that serve us well but our success in global markets is also testament to our highly skilled workforce, our executive management and the high quality of our coals."

But Hamilton said the question is not whether West Virginia coal can compete but whether it will be allowed to compete in this global marketplace.

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## EXPORTS from page 65

"We have it here this opportunity if we can effectively compete and maintain our viability in world markets where we face fierce competition from foreign sources who are also growing their mining infrastructure and preparing to ramp up production capabilities," Hamilton said. "On one hand, increased or an expanded market but no guarantee the coal will come from here. This competition relies on child labor and in many instances these countries don't have the same work force safety, human rights protections or environmental protection."

In his remarks in Charleston and Wheeling, Bill Raney, president of the West Virginia Coal Association, said production is now down about 3 percent this year. That decline has been occurring for several years, but has been masked by stable coal revenues. The reason for the discrepancy has been price increases that outpaced losses from volume.

"It's clearly coming to everyone's attention now," Raney said. "Not only are we losing volume, we're losing dollars because the price is not nearly as robust or as strong as then."

Raney said the federal government should be encouraging both domestic and international use of coal.

"It's amazing to me that everyone else in this world wants it," he said. "...It makes absolutely no sense to me."

Raney said he remains optimistic.

"We are hopeful against hope all of this is going to turn around," he said.

### Coal Exports Up but Future is Cloudy

The top markets for West Virginia coal with the largest growth were Japan (growing from 29 million in 2011 to 395 million in 2012) and China (growing from 93 million in 2011 to 567 million in 2012).

As is shown in the accompanying chart, coal exported from West Virginia is primarily sent to Netherlands (\$801 million), Italy (\$698 million), India (\$689 million), China (\$567 million), Brazil (\$558 million), South Korea (\$520 million), United Kingdom (\$457 million), Turkey (\$403 million), Japan (\$395 million) and France (\$383 million).

"At the end of the day, all of these positive numbers meant that West Virginians are on the job, making a living, and it's thanks to coal," Tomblin said.

Tomblin said other countries have a "huge interest in West Virginia coal" and that the state should continue to support efforts to engage in global coal markets. He added that he was "a friend of coal and I always will be."

### A Shock of Cold Water

Kelly Goes, state director for Sen. Joe Manchin, D-W.Va., spoke on his behalf. Goes lauded the impact of coal exports but said President Obama's recent speech encouraging climate action is a shock of "cold water" thrown on the industry.

"We are not going to let this war on coal be the defeat of our stat.," Goes said, adding that Manchin believes Obama's climate agenda is a

"pie in the sky" plan that "ignores reality."

Mary Elisabeth Eckerson was on hand for Rep. Shelley Moore Capito, R-W.Va., who could not be at the Forum due to requirements on Capitol Hill. Eckerson read a statement on Capito's behalf.

In the statement, Capito chastised the Obama administration, particularly the EPA and praised the coal industry and the importance of exports.

"Exports have played an important role in maintaining jobs in the West Virginia coal industry," Capito's statement read. "...Our economic situation would be far worse if it were not for coal exports."

Fred Tucker, a retired United Mine Workers of America member and co-chair of the West Virginia Coal Forum, told the crowd that by turning its back on coal, America "has forgotten who brought them to the dance."

"Coal miners provided the opportunities... the provided the utility companies with the coal and built what we have today," Tucker said. "Our country was built on the backs and the sweat of the people who mined the coal. I think they need to take a look at themselves and see if we can work out something that will make coal meet the environmental requirements."

### Other Challenges

Coal executives Jack Porco, president and CCO of Xcoal, which focuses largely on the export coal market, and Mike Zervos, President and CEO of United Coal said in remarks in Charleston that current export challenges include a market that had been oversupplied in anticipation of demand increases.

"We've had some good times. ... I want to tell you we're in a challenging moment," Porco said. "They're not challenges we can't overcome, but there are challenges."

Porco said current market conditions have more to do with the oversupply of coal than a softening of demand. Demand for coal has steadily increased globally while falling in the U.S.

One surprise has been the "slowing" of the Chinese economy.

"The industry has invested about \$50 billion worldwide gearing up for what it thought was going to be ever-increasing demand from China," Porco said. "... What's happened is that China's demand for imported coal has leveled off."

Another factor, according to Zervos, has been the resurgence of Australian coal, recovering from the impact of flooding from monsoons over the past couple of years. Also, Zervos said, Canada has suddenly become a major competitor for U.S. global markets.

### Prescription for the Future

Porco said the real chance for the future will be changes to delivery contracts bringing a focus on quarterly and spot prices versus annual prices.

"Companies are going to have to manage their coal mines on a short-term basis because that's the way prices are going to be," he said. "You're going to see prices change on a quarterly basis or a spot basis. ... Only the low-cost

producers are going to survive. Not everyone is going to survive this market."

Porco said that recovery for the coal industry is going to require a level regulatory playing field but also a broader economic recovery.

The bottom line is clearly that there are challenges facing the coal industry both in terms of its domestic and international markets – much of the problem is the result of deliberate policy initiatives by the Obama Administration that have resulted in significant job losses and now it is playing out in terms of reduced prices for coal and with it dropping revenues for the state.

Until now, the export market has provided a cushion against those impacts but while there remains significant opportunities as global coal demand rises, there also remains significant challenges that must be overcome if West Virginia – and indeed the entire domestic coal industry – are to take advantage of the demand and rebuild our economy.

It will take a cooperative effort on the part of all West Virginians to overcome these issues and such a coalition of business, government and education leaders is developing.

Robin Capehart, president of West Liberty University, who co-sponsored the Wheeling event August 15, put it clearly when he said, "I learned from an early age the importance of the mining industry and all that coal does for our region. My father worked at an area power plant and I also worked for a business that did work for the industry. We need to do all we can to assure a bright future for coal and West Liberty stands ready to assist."

Jeff Kessler, president of the West Virginia Senate and a native of Marshall County, headlined the event. "There is no doubt that West Virginia will continue to produce coal," Kessler stated. "Many may not realize it, but Marshall County is the state's top coal producing county. That's my home and I'm proud of that fact."

"Concerning the new federal policies confronting the industry, we need stability and predictability. We need reasonable regulation and a reasonable time frame within which to adapt and comply."

Ritchie Parsons, representing Congressman David McKinley, read a letter from the Congressman. McKinley said, "Coal will continue to be the backbone and cornerstone of West Virginia's economy and I am doing everything I can in Washington to make sure that is the case."

Deigo Gattesco, director, U.S. Export Assistance Center for the region covering West Virginia, affirmed the tremendous increase in coal exports. He said that exports have risen from several hundred million dollars in 2002 to more than \$7 billion in 2012. He pledged the support of his agency.

"I would encourage the coal industry to utilize the services of the U.S. Commercial Service. We are here to help and can assist in a myriad of ways. From identifying prospective customers in other countries to arranging meetings. "That is our job and we are here to help," Gattesco said.

A third coal forum was held Sept. 3♦

# Coal and Steel

BY JASON BOSTIC  
Vice President

The steel industry is the second largest coal user in the United States. About 80 million tons of coal are used each year to make coke, an essential element in the steelmaking process. For West Virginia's coal industry, metallurgical coal production constitutes about 40 percent of our annual production. West Virginia has some of the best metallurgical coal found anywhere in the world.

But before coal can be used to make steel, it must be converted to a product called "coke."

In the blast furnace, coke serves as a fuel, an oxygen-reducing agent and a means of infusing steel with carbon to strengthen it. About two-thirds of a ton of coal is needed to produce a ton of steel.

The requirements of coals purchased for coke making are much different from those used in other processes such as electricity generation. Only a certain class of coals – bituminous -- possessing very specific properties and composition are suitable for the making of a quality coke for blast furnace use. Bituminous coals used to make coke are classified as "metallurgical." To make coke for the blast furnace, high, medium and low volatile metallurgical coals are blended to obtain the desired chemical composition and coking properties. The appropriate blends of metallurgical coal are very specific to the individual coke and steel facilities where it is used.

Not all types of bituminous coal are adaptable to coke-making and among the types that are, not all yield the type of coke required in the modern blast furnace.

For efficient blast furnace operation, coke should be strong and suitably sized. It should also contain minimum quantities of ash and sulfur.

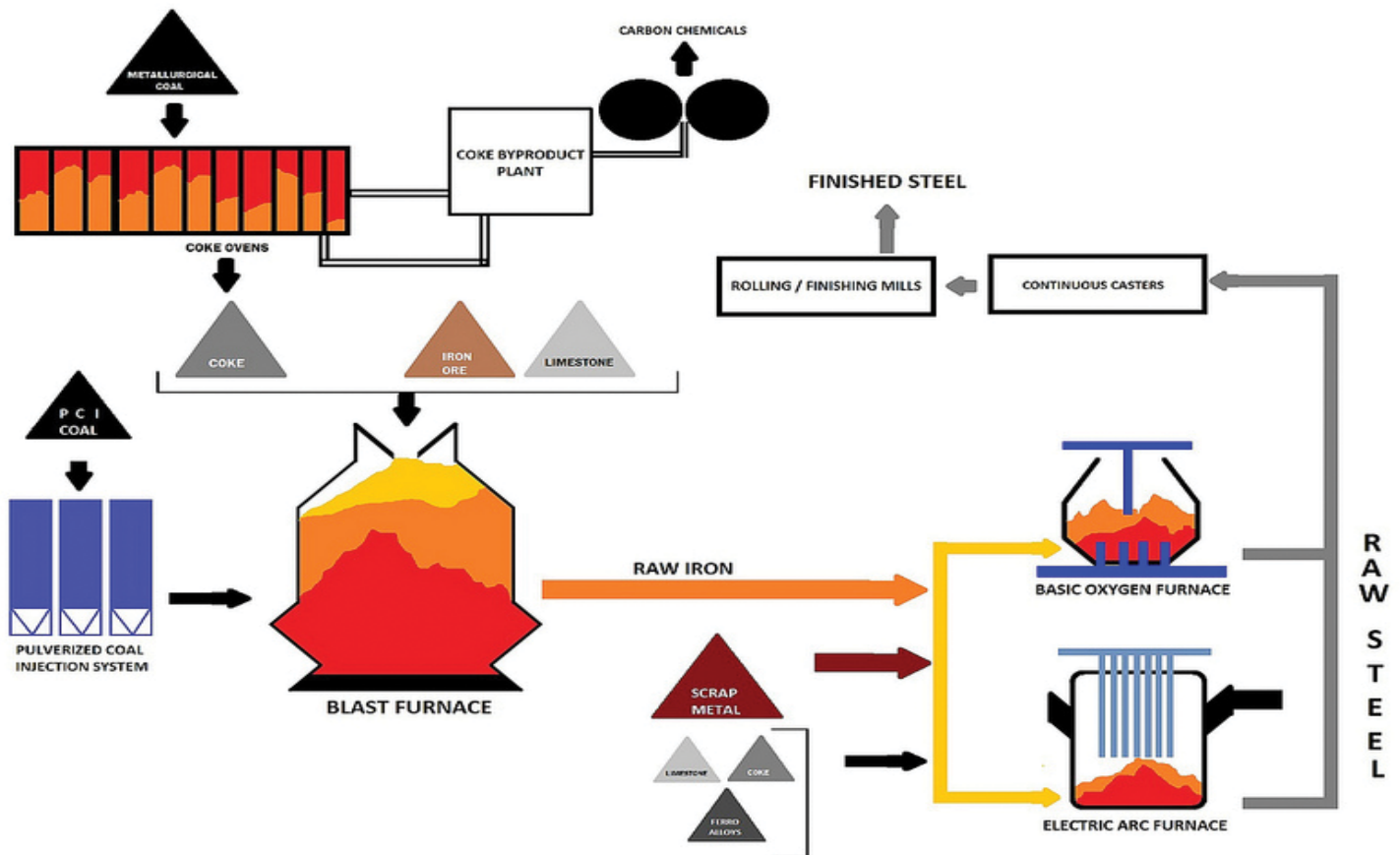
Metallurgical coal is converted to coke by "cooking" the coal in special facilities called "coke ovens" where the coal is heated to around 1000-1100°C in the absence of oxygen to drive off the volatile compounds. The physical properties of coking coal cause the coal to soften, liquefy and then re-solidify into hard but porous lumps when heated in the absence of air. It requires 12 to 36 hours to make coke in the coke ovens. When the process is completed, the remaining coke is almost pure carbon.

## An Overview of the Process of Making Steel

In the blast furnace, coke serves as a fuel and an oxygen-reducing agent. During the iron-making process, a blast furnace is fed with the iron ore, coke and small quantities of material known as "fluxes" (minerals, such as limestone, which are used to collect impurities referred to as steel slag). The combination of raw materials is referred to as a blast furnace "charge". Air which is heated to about 1200°C is blown into the furnace through nozzles in the lower section. The air causes the coke to burn, producing carbon monoxide which reacts with the iron ore, as well as heat to melt the iron. Coal may

be used at this stage to simply heat the blast furnace charge of iron ore, coke and limestone. A system called "pulverized coal injection" or simply "PCI" is used to blow pulverized coal into the blast furnace along with air where its combustion helps heat the blast furnace charge to produce raw iron. The PCI process can use coal of a lesser quality than what is required to make coke and its use reduces the amount of coking coal and coke that is needed in the steel-making process. Once the charge has melted and reached the correct temperatures, a tap hole at the bottom of the furnace is opened and molten iron and slag (impurities) are drained off. The molten iron from the blast furnace is further refined in special furnaces to produce steel. In the steel furnaces the molten iron is further heated and scrap metal is added to the iron (by recycling scrap metal, less raw iron from the blast furnace is needed to make steel). Coke is added to the steel furnace charge to infuse the raw steel with carbon to strengthen it. Ferroalloys such as magnesium, manganese, molybdenum, which are used to strengthen the steel and give certain physical properties, are added in the steel furnaces according to the quality and type of steel being produced. Fluxing stone is used in the steel furnaces to collect steel slag. Once the iron has been converted in the steel making furnaces, the molten steel is sent to finishing mills where it is cooled, shaped and cut for shipment to the customer.

See "STEEL" Page 68



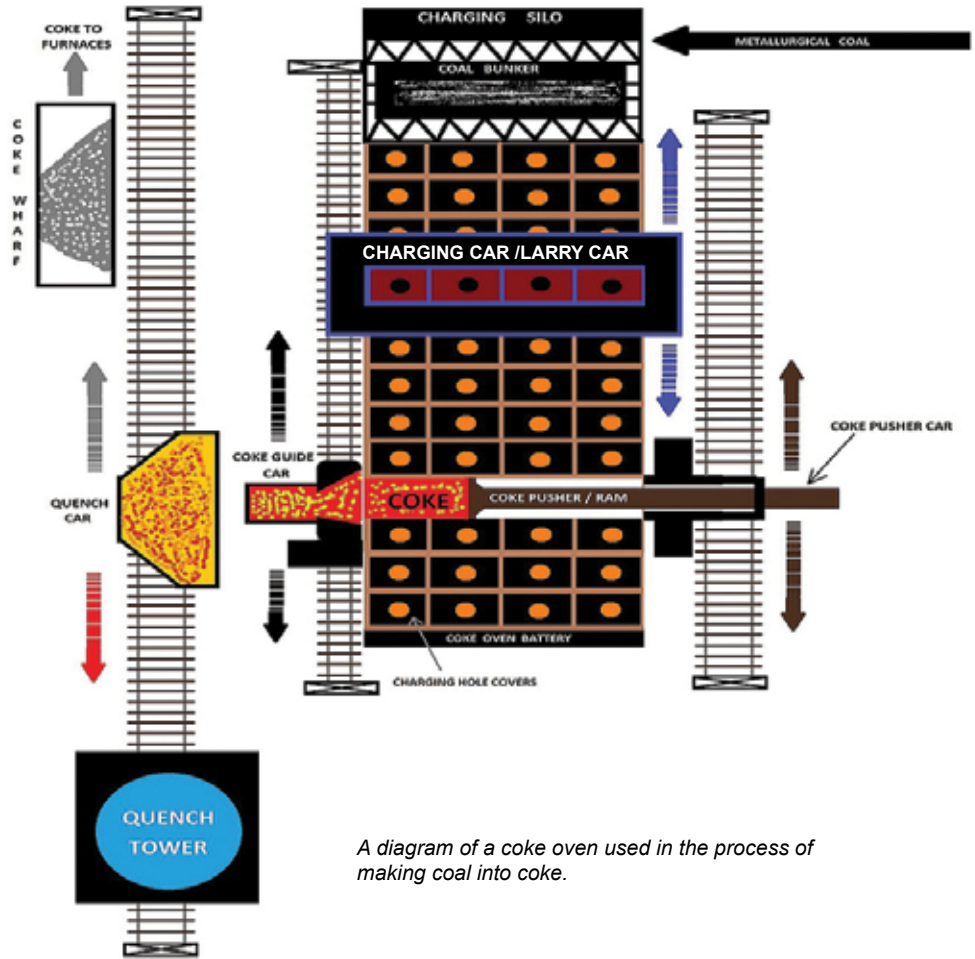
## Creating Coke from Coal

### The Coke Process

A coke battery is made up of scores of individual ovens which average about 40 feet in length, up to 20 feet high and about 8 inches in width. Metallurgical coals are pulverized and blended before they are sent to the charging silo at the coke battery. From the silo, the mix is loaded into a larry car (a machine that travels on rails on top of the battery). The larry car pours or discharges 12 to 35 tons of coal mix into each oven through charging holes. Coke oven gas is burned in the flues and the walls between the ovens, where it heats the coal, in the absence of air and for 18 hours or longer, to about 2,000 degrees Fahrenheit. During that time the coal becomes liquid, the volatile matter is driven off and the fluid coal resolidifies into coke – a gray, porous high carbon material.

The volatile gases that evolve from the coal during coking are carried away from each oven through a network of pipes associated with the battery. They are piped to a by-product plant where useful chemicals are recovered and cleaned gas is returned to the battery to be burned in the flues.

After the coal is “coked”, doors at both ends of the oven are removed. The “pusher ram” shoves the coke through the coke guide and into a waiting “quench car,” which takes the hot coke to the quench tower where it is sprayed with cooling water to extinguish the hot coke and then allowed to drain. The coke is then taken to a “coke wharf” where it dries and cools further. Then it is sized and loaded into railroad cars, trucks or continues on to the blast furnace.



A diagram of a coke oven used in the process of making coal into coke.



# Origins of Coal

Coal is the primary form of energy used in the United States each day, accounting for one-third of the nation's total energy production. It is the source of 42 percent of the electricity generated nation wide. It is by far the most abundant American energy source, accounting for 90 percent of America's fossil energy reserves.

In the Industrial Revolution, coal was the fuel that powered the transformation of the United States from an agricultural society into the greatest economic power in the world. Today, it is the direct and indirect source of hundreds of thousands of jobs and billions of dollars in economic impact. Abundant and affordable, coal-fired electricity is the life force of the American economy. It is "America's best friend."

American coal was used at least 1,000 years ago by Hopi Indians in present day Arizona to bake clay pottery. Europeans discovered the mineral in the Illinois River basin in the 1670s. The first coal mining occurred before the American Revolution, along the Potomac River near the modern border of West Virginia and Maryland.

Coal was first discovered in West Virginia in 1742 in Boone County.

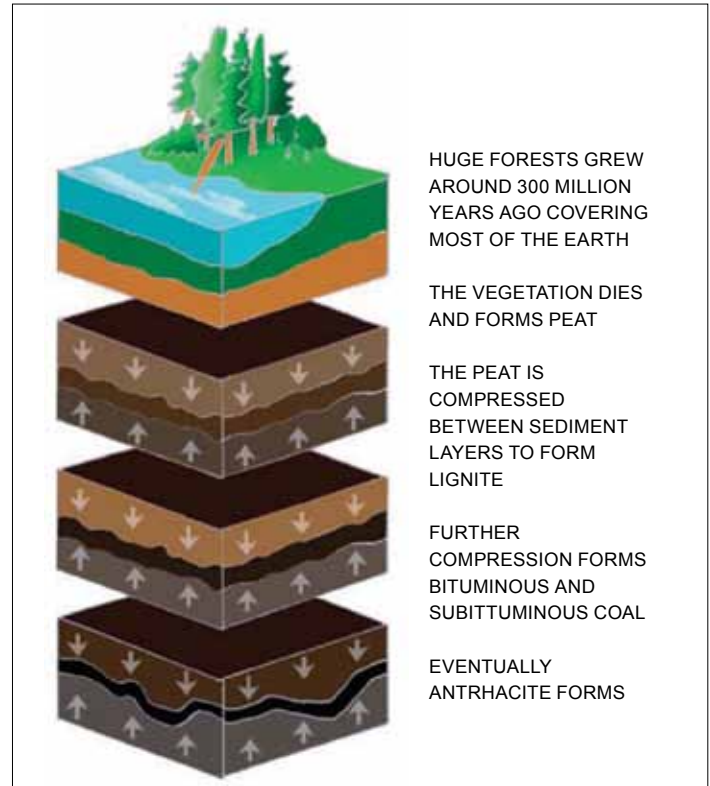
Technically, coal is not a mineral. Like petroleum and natural gas, coal is a fossil fuel, formed from once living organic materials. Coal was formed from the remains of trees, ferns and other plant life that thrived in the age of dinosaurs, from 400 million to a billion years ago. Each foot of a coal seam represents the accumulation of about 10,000 years of plant remains. Over time, geological processes compressed and altered the plant remains, gradually increasing the carbon content and transforming the material into coal.

Due to varying levels of geologic pressure, coal deposits are of four types: lignite, subbituminous, bituminous and anthracite. Each succeeding type is higher in heating value, as measured by British Thermal Units, or BTU's. Lignite is found primarily in the southwest and subbituminous in the upper west. Anthracite is limited primarily to certain areas of Pennsylvania. Considering quality and quantity, bituminous coal is the nation's most valuable

coal resource. Bituminous coal is found primarily in the Appalachian states and in the midwest.

Western coals were formed 50 to 70 million years ago. Eastern and midwestern coals

were formed 200 to 250 million years ago. America is in no danger of running out of coal. Recoverable U.S. reserves total over 290 billion tons, nearly three centuries worth at current production levels.♦



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US Coal provides over 80% of our energy needs for the eastern US

US Coal is a relatively low cost and local energy source

Modern lifestyles and industry practices have an expanding demand for more energy

No alternative energy infrastructure exists to replace coal

Today's miner is skilled and is capable of operating modern equipment efficiently and safely

# Our Nation's Future...

## Relies on Coal!

Mapleto: SC Skyline Summer 2013

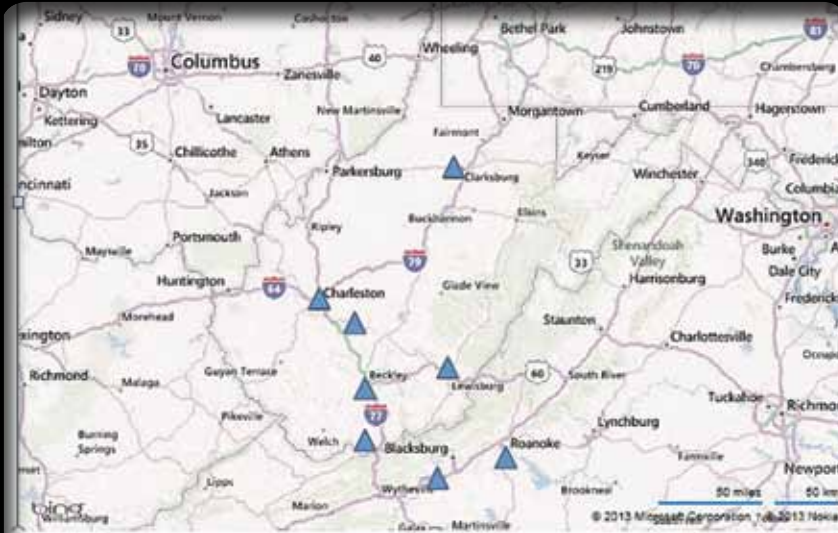
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## Glossary of Terms

**Air split** - The division of a current of air into two or more parts in underground mining.

**Anemometer** - Instrument for measuring air velocity.

**Angle of dip** - The angle at which strata or mineral deposits (coal) are inclined to the horizontal plane.

**Anthracite** - The hardest classification of coal, almost pure carbon, used mainly for heating homes. Anthracite is mined primarily in Pennsylvania.

**Auger mining** - Mining which employs a large auger, which functions much like a carpenter's wood drill. The auger bores into a coal seam and discharges coal out of the spiral onto waiting conveyor belts. After augering is completed, the openings are covered and regraded. This method of mining is usually employed to recover any additional mineral left in areas that cannot be reached economically by other types of surface mining.

**Approximate original contour** - The surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface or configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated.

**Aquifer** - A water-bearing bed or porous rock, often sandstone.

**Backfill** - Operation of refilling an area with the dirt and rock that has been removed, including the grading of the refilled excavation. Also, the material placed in an excavation in the process of backfilling.

**Barricading** - Enclosing part of an underground mine to prevent inflow of noxious gases from a mine fire or an explosion.

**Bed** - A stratum of coal or other sedimentary deposit.

**Belt conveyor** - A looped belt on which coal or other materials can be carried, constructed of flame-resistant material or reinforced rubber.

**Bituminous** - A medium soft classification of coal, the most common and useful type

mined in the U.S. It is used primarily for electric generation and for coke making for the steel industry.

**Bottom** - Floor or underlying surface of an underground mine.

**BTU** - British Thermal Unit. A measure of the energy required to raise the temperature of one pound of water one degree Fahrenheit. On average, coal contains 25 million BTU's per ton.

**Cannel coal** - A non-caking block coal with a fine, even grain, burns with a long, yellow flame and is very easy to ignite.

**Canopy** - A protective covering of a cab on a mining machine.

**Captive mine** - A mine in which the production is used wholly or primarily by the mine owner or subsidiary.

**Chain pillar** - The pillar of coal left to protect the gangway or entry and the parallel airways in an underground mine.

**Coal gasification** - The conversion of coal into a gaseous fuel.

**Coal seam** - A bed or stratum of coal. The term is usually applied to a large deposit of coal.

**Coal Cleaning** - The process of separating coal of various sizes, densities and shapes by allowing them to settle in a fluid. The washing process plays an important role in improving coal quality by removing rock, other impurities and some organic sulfur. Washing takes place at preparation plants, usually located at the mine or shipping site.

**Coal Refuse** -- Non-coal shale or other rock partings and intrusions within a coal seam that are extracted along with the coal and later separated at the preparation plant.

**Coke** - A hard, carbon substance produced by heating coal to a very high temperature in the absence of air. Coke is used in the manufacture of iron and steel.

**Continuous mining** - The most common method of underground coal mining currently in use in the U.S. This process utilizes a continuous mining machine that totally mechanizes the coal extraction process by cutting or removing the coal from the seam using a large steel drum with many huge teeth and loading the cut coal into a

shuttle car or a continuous haulage system for removal from the mine.

**Contour** - An imaginary line that connects all points on a surface having the same elevation.

**Conventional mining** - This type of mining involves the insertion of explosives into the coal seam, blasting the seam and removal of the coal onto a conveyor or shuttle car by loading machine. Once the most common form of deep mining, conventional mining now accounts for only a small proportion of coal production.

**Core Sample** - A cylindrical sample generally 1-5 inches in diameter, drilled out of ore to determine the geological and chemical analysis of the overburden of coal.

**Cover** - The overburden of any deposit.

**Crosscut** - A passageway between the entry and its parallel air course or air courses for ventilation purposes in an underground mine. Also, a tunnel driven from one seam to another through or across the intervening measures; sometimes called "crosscut tunnel", or "breakthrough."

**Cross entry** - An entry running at an angle with the main entry.

**Deep mine** - An underground mine.

**Demonstrated reserve base** - Coal deposits which are economically feasible to mine with existing technology.

**Dip** - The inclination of a geologic structure (bed, vein, fault, etc.) from the horizontal; dip is always measured downward at right angles to the strike.

**Dragline** - A large earthmoving machine which uses a giant bucket suspended from cables to remove the overburden from a coal seam in surface mining.

**Drift mine** - A coal mine entered directly through a horizontal opening drilled into the side of a hill or mountain. This method of mining is used in hilly or mountainous areas.

**Face** - The exposed area of a coalbed from which coal is extracted.

**Fluidized bed combustion** - A process that removes sulfur from coal during combustion. Crushed coal and limestone



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# Glossary of Terms

- are burned together in a boiler. Sulfur gases from the coal combine with the limestone to form a solid compound that is recovered with the ash.
- Fossil fuel** - Any naturally occurring fuel of an organic nature, such as coal, crude oil and natural gas.
- Fly ash** - The finely divided particles of ash resulting from the combustion of coal.
- Fossil fuel** - Any naturally occurring fuel of an organic nature, such as coal, crude oil and natural gas.
- Haul road** - Shot rock or asphalt road constructed or utilized to transport coal by truck from the mine to the tippie, or to rail or barge facilities.
- Haulageway** - Any underground entry or passageway that is designed for transport of mined material, personnel, or equipment, usually by the installation of track or belt conveyor.
- Highwall** - Unexcavated face of exposed overburden and coal in a surface mine. Highwalls must be recontoured following the extraction of coal.
- Highwall miner** - A highwall mining system consists of a remotely controlled continuous miner which extracts coal and conveys it via augers, belt or chain conveyors to the outside. The cut is typically a rectangular, horizontal cut from a highwall bench, reaching depths of several hundred feet or deeper.
- Hopper Cars** - Open freight cars with a floor sloping to one or more hinged doors for discharging bulk materials including coal.
- Inby** - Moving into an underground mine the direction of the working face.
- In situ** - In the natural or original position. Applied to a rock, soil, or fossil when occurring in the situation in which it was originally formed or deposited.
- Intake** - The passage through which fresh air is drawn or forced into an underground mine or to a section of a mine.
- Lignite** - The softest classification of coal, with the highest moisture content. It is mined primarily in the western U.S. and used for some electric generation and for conversion to synthetic gas.
- Liquefaction** - The process of converting coal into a synthetic liquid fuel, similar in nature to crude oil and/or refined products, such as gasoline.
- Longwall mining** - Longwall mining employs a steel plow or rotating drum, which is pulled mechanically back-and-forth across a face of coal that is usually several hundred feet long. The loosened coal falls onto a conveyor for removal from the mine. Longwall operations include a hydraulic roof support system that advances as mining proceeds allowing the roof to fall in a controlled manner. Longwall mining is an underground mining technique, that is highly productive, and generally improves mine safety. West Virginia is the leading longwall mining producer in the United States.
- Man Car/Man Trip** - The vehicle that transports miners to working sections of a deep mine.
- Metallurgical coal** - The types of coal carbonized to make coke for steel manufacture, typically high in BTU value and low in ash content.
- Methane** - A potentially explosive gas formed naturally from the decay of vegetative matter, similar to that which formed coal.
- Methane** - the principal component of natural gas, is frequently encountered in underground coal mining operations, and is kept within safe limits through the use of extensive mine ventilation systems. Coalbed methane has now been recognized as an important energy resource. Increased efforts are underway to expand its extraction from coal seams.
- Mine mouth power plant** - A steam-electric power plant built close to a mine. Because of this proximity, the coal is often delivered to the plant by tramway or covered conveyor. The plant delivers its electricity output to distant points through large transmission lines.
- Mountaintop mining** - Surface mining technique which removes overburden at the top of the mountain in order to recover 100% of the mineral.
- Outcrop** - Coal which appears near or at the surface.
- Overburden** - Layers of native rock and soil covering a coal seam. Overburden is removed prior to surface mining and replaced after the coal is taken from the seam. The excess of this material is often placed in valley fills.
- Panel** - A coal mining block that generally comprises one operating unit in a longwall mining operation.
- Pillar** - An area of coal left to support the overlying strata in a mine; sometimes left permanently to support surface structures.
- Portal** - The structure surrounding the immediate entrance to a mine; the mouth of a tunnel.
- Post-Mine Land Use** - The utilization of former mine sites for economic or community development, such as the construction of residential areas, shopping centers, industrial parks, recreational facilities, airports and other facilities. This is a common practice throughout the coalfields, where flat, developable land is at a premium.
- Preparation Plant** - Usually located on a mine site, although one plant may serve several mines. A preparation plant is a facility for crushing, sizing and washing coal to prepare it for use by a particular customer. The washing process has the added benefit of removing some of the coal's sulfur content.
- Productivity** - The amount of coal produced by one worker in one workday. Productivity is calculated by dividing the total number of worker/days into total coal production. The productivity of underground and surface mining operations is calculated in the same manner, using the specific man day and production totals.
- Reclamation** - The restoration of land and environment after the coal is extracted. Reclamation operations are usually underway where the coal has already been taken from a mine, even as mining operations are taking place elsewhere on the site. The process commonly includes recontouring or reshaping the land to its approximate original appearance, restoring topsoil and planting native grasses and ground covers. Reclamation is closely regulated by both state and federal law, and the coal industry's outstanding effort in this area has resulted in millions of acres of restored productive land throughout the country.
- Recoverable reserves** - The amount of coal that can be recovered from the Demonstrated Reserve Base. There are about 486 billion tons of recoverable reserves in the U.S., enough to last nearly 250 years at current consumption levels.
- Recovery** - The proportion or percentage of coal or ore mined from the original seam or deposit.
- Red dog** - a nonvolatile combustion product of the oxidation of coal or coal refuse. Most commonly applied to material resulting from uncontrolled burning of coal or coal refuse piles. It is similar to coal ash.
- Reserve** - That portion of the identified coal resource that can be economically mined at the time of determination. The reserve is derived by applying a recovery factor to that component of the identified coal resource designated as the reserve base.
- Respirable dust** - Dust particles 5 microns or less in size.
- Return** - The air or ventilation that has passed through all the working sections of a split.
- Rib** - The side of a pillar or the wall of an entry. The solid coal on the side of any underground passage.
- Rider** - A thin seam of coal overlying a thicker one.
- Rock dusting** - The process of coating the tunnels in deep mines with powdered limestone, for the purpose of diluting potentially unhealthy or dangerous concentrations of coal dust and to help minimize explosion hazards.
- Roof bolting** - A method of supporting the ceilings of underground mines by inserting long steel bolts into holes bored into the strata forming the roof.
- Room and pillar mining** - A method of deep

# Glossary of Terms

- mining in which approximately half of the coal is left in place to support the roof of the active mining area. Large “pillars” are left while “rooms” of coal are extracted.
- Run-of mine coal** - Coal as it comes directly from the mine, not processed by a preparation plant.
- Safety lamp** - A lamp with steel wire gauze covering every opening from the inside to the outside so as to prevent the passage of flame should explosive gas be encountered.
- Sandstone** - A sedimentary rock consisting of quartz sand united by some cementing material, such as iron oxide or calcium carbonate..
- Scrubber** - (A)Any of several forms of chemical/physical devices that remove sulfur compounds formed during coal combustion. These devices, technically known as flue gas desulfurization systems, combine the sulfur in gaseous emissions with another chemical medium to form inert “sludge which must then be removed for disposal. (B) A unit on a continuous mining machine that removes the dust during underground mining operations.
- Seam** - A stratum or bed of coal.
- Secondary roof** - The roof strata immediately above the coalbed, requiring support during the excavating of coal.
- Section** - A portion of the working area of an underground mine.
- Self-contained self-rescuer (SCSR)** - A self-contained supply of oxygen used during rescue work from coal mine fires and explosions
- Self-rescuer** - A small breathing device carried by a coal miner underground, either on his belt or in his pocket, to provide him with immediate protection against carbon monoxide and smoke in case of a mine fire or explosion. It is a small canister with a mouthpiece directly attached to it. The wearer breathes through the mouth, the nose being closed by a clip. The canister contains a layer of fused calcium chloride that absorbs water vapor from the mine air. The device is used for escape purposes only, because it does not sustain life in atmospheres containing deficient oxygen. The length of time a self-rescuer can be used, usually between 30 minutes and one hour, is governed mainly by the humidity in the mine air.
- Shaft** - A primary vertical or inclined opening through mine strata used for ventilation or drainage and/or for hoisting of personnel or materials; connects the surface with underground workings.
- Shaft mine** - An underground mine in which the main entry or access is by means of a vertical shaft.
- Shale** - A rock formed by consolidation of clay, mud, or silt, having a laminated structure and composed of minerals essentially unaltered since deposition.
- Shearer** - A mining machine for longwall faces that uses a rotating action to “shear” the coal from the face as it progresses along the face.
- Shift** - The number of hours or a specified part of the workday.
- Shuttle car** - A self-discharging truck, generally with rubber tires or caterpillar-type treads, used for receiving coal from the loading or mining machine and transferring it to an underground loading point, mine railway or belt conveyor system.
- Slack** - Small coal; the finest-sized soft coal, usually less than one inch in diameter.
- Slate** - A miner’s term for any shale or slate accompanying coal. Geologically, it is a dense, fine-textured metamorphic rock, with excellent parallel cleavage so that it breaks into thin plates or pencil like shapes.
- Slip** - A fault. A smooth joint or crack where the strata have moved on each other.
- Slope mine** - A mine with an opening that slopes upward or downward to the seam, with adjoining vertical shafts for air ventilation and emergency use.
- Sounding** - Knocking on a mine roof to test its stability and strength.
- Split** - Any division or branch of the ventilating air current in an underground mine.
- Steam coal** - Coal used primarily for electricity production, generally lower quality value than metallurgical coal.
- Stripping ratio** - The unit amount of overburden that must be removed to gain access to a similar unit amount of coal or mineral material.
- Subbituminous** - Classified between bituminous and lignite, with low fixed carbon and high volatility and moisture.
- Subsidence** - The planned gradual sinking, or sometimes abrupt collapse, of the rock and soil layers into an underground mine. .
- Support** - The vital function of keeping the mine workings open. As a verb, it refers to this function; as a noun it refers to all the equipment and materials- timber, roof bolts, concrete, steel, etc.- that are used to carry out this function.
- Surface mine** - A mine in which the coal lies near the surface and can be extracted by removing the covering layer of native rock and soil.
- Short Ton** - Standard American measurement, equal to 2,000 pounds. Conversely, a long or British ton is 2,240 pounds, and a metric ton is approximately 2,205 pounds.
- Timber** - A collective term for underground wooden supports.
- Tipple** - Originally the place where the mine cars were tipped and emptied of their coal, and still used in that same sense, now refers to the surface structures of a mine, including the preparation plant and loading tracks.
- Top** - An underground mine roof.
- Trip** - A train of mine cars.
- Underground mine** - Also known as a deep mine. Usually located several hundred feet below the earth’s surface. Most underground mines are located east of the Mississippi River.
- Unit train** - A single, long train of between 60 and 150 hopper cars, carrying coal between a mine and a destination. A typical unit train can carry at least 10,000 tons of coal in a single shipment.
- Working face** - Any place in a mine where mineral is extracted.
- Working section** - The area from the faces to the point where coal is loaded onto belts or rail cars in an underground mine.

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