

National Mining Association



2008 Coal Producer Survey • May 2009

# 2008 COAL PRODUCER SURVEY

May 2009

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## The Coal Industry In 2008

Production – 2008 was a record year for coal production in the United States, according to Energy Information Administration (EIA) preliminary figures. Total coal production stood at 1,171.5 million short tons, marking an increase of 24.9 million short tons, which translates into a 2.2 percent gain, according to preliminary government figures.

Eastern coal (east of the Mississippi River) accounted for 42.1 percent of production (493.1 million tons including refuse recovery), while production in the West accounted for 57.9 percent (678.4 million tons).

Eastern coal production was up 3.1 percent in 2008, with increases occurring in Alabama, Indiana, Kentucky, Maryland, Ohio, and West Virginia. Production in the West was up 1.5 percent, with increases in Wyoming, Montana, New Mexico, Alaska, Arizona and North Dakota.

After a stellar 2008 production year, U.S. coal production in 2009 (Eastern and Western) is expected to substantially contract due to domestic and global demand declines influenced by slumping steel, electricity and export markets. The global economic recession has had a broad affect on energy fuels and other commodities. In addition to weak economic conditions, coal production is being impacted by an increase in other renewable generation (wind) and displacement of coal demand stemming from slack natural gas demand, which has resulted in much lower natural gas prices.

Consumption and Inventories – Domestic coal consumption totaled 1,121.7 million tons in 2008, marking a decrease of 0.6 percent (6.3 million tons) primarily due to the combination of the slowing economy in the last half of the year and milder winter and summer temperatures. Electric power sector consumption was down 0.3 percent (1,041.6 million tons).

Coal production, approximately 93 percent, continued to go principally to electricity generation. Power producers used an estimated 1,041.6 million tons of coal, about 3.5 million tons less than in 2007. Nearly all of the decline occurred during the second half of the year and coincided with the overall reduction in economic activity and cooler summer weather compared to last year. Demand for coking coal in the U.S. was down slightly (2.8 percent) in 2008. Other industrial demand, which includes other industrial combined heat and power and industrial fuels, decreased 3.7 percent, while the commercial/institutional sector remained roughly the same as in 2007. Consumer stock inventories ended the year with the largest volume of coal in stockpiles since 1987 at 163.1 million tons, marking a 7.8 percent stock-build in 2008. Producer/distributor stockpiles were up 19.6 percent in 2008.

Power Generation – Preliminary EIA data indicate that coal-based power generation from all sectors decreased 1.1 percent to 1,994 billion kWhrs in 2008, with coal continuing to provide close to 50 percent of total electricity net generation.

According to EIA, approximately 5 percent (1,131 MW) of new power capacity additions in 2008 were coal-based. That number is expected to increase significantly to nearly 26 percent (6,082 MW) in 2009. As in recent years, the greatest percentage of electric power capacity additions were natural gas-based (46 percent). According to the National Energy Technology Laboratory (NETL), the following coal plants became operational in 2008: the 600 MW Cross plant in South Carolina; the 1.7 MW Pleasant Prairie plant (pilot/new technology plant) in Wisconsin, the 200 MW TS Power plant in Nevada, the 500 MW Weston plant in Wisconsin and the 90 MW Wygen II plant in Wyoming. A total of 28 coal plants (16,319 MWs of capacity) are still under construction and due to come on line between now and 2012.

Exports – U.S. exports experienced astounding growth again in 2008, reaching their highest level in over a decade. The nearly 82 million tons exported represented a 38 percent increase from the 2007 level of 59.2 million tons. Along with many other commodities in recent years, coal benefited from the global rush for resources. In addition, the U.S. dollar was trading lower against most international currencies, making U.S. coal more competitive. Favorable shipping rates also helped the competitiveness of U.S. coal.

Mine, transportation and infrastructure constraints in Australia (the world's number one exporter), plus high domestic demand for coal from China, South Africa, Indonesia and Russia constrained the world market and continued to fuel interest in U.S. coal by international purchasers in much of 2008. In January, China suspended coal exports due to severe weather and power shortages, and South Africa limited coal exports in response to an electric power shortage.

Metallurgical coal exports finished the year at 42.5 million tons, up 32 percent, as demand for U.S. coking coal for international markets increased dramatically again in 2008. Most of the increase in 2008 met coal demand can be attributed to increases in shipments to Europe and Asia. The United States' primary met coal customer, Europe, took nearly 26 million tons, up 39 percent (7 million tons) from 2007. Flooding of mines and continuing infrastructure problems in Australia, along with strong internal coal demand from China, India, South Africa and other countries, caused Europe to seek more met coal from the U.S. in 2008. Shipments of met coal to Canada remained relatively stable at 3.6 million tons in 2008.

Steam coal exports, including lignite and anthracite increased 45 percent to nearly 39 million tons, driven by much larger shipments to Europe, South America and Asia. Canada, still the United States' largest customer, took 19.4 million tons of steam coal in 2008, up 31 percent. The government of Ontario's plan to phase out its coal plants by 2009 is being delayed until the end of 2014 due to greater electricity demand from increasing summer air conditioning use. (They are planning to begin reducing coal usage beginning this year.) Steam coal exports to Africa dropped by 22 percent, precipitated by decreases in shipments to Morocco, Egypt and South Africa.

Imports - Coal imports decreased 5.9 percent to 34.2 million tons in 2008 from 2007's record 36.3 million ton level. Most imported coal came from South America, with Colombia representing a 77 percent share of total imports. Other major U.S. coal import suppliers were Indonesia, Venezuela and Canada. The coal was imported primarily by East Coast power generators located near port terminals that have capacity to unload ships directly to stockpiles, as well as plants located near port terminals. Coal imports currently account for about 3 percent of total U.S. domestic consumption, while exports account for 7 percent (of coal market).

## **Key Coal Supply and Demand Factors in 2008**

Competing Fuels/Energy Sources – EIA estimates that approximately 9.8 gigawatts of new natural gas electric generating capacity came online in 2008, representing 46 percent of total new capacity. About 41 percent of plant development in the construction phase in 2009 is natural gas, according to an American Public Power Association report (about 43 percent is coal).

As a large number of natural gas plants have become operational in recent years, demand for gas for electricity has increased sharply. Rising demand and fluctuations in petroleum prices have contributed to natural gas price volatility. In the summer of 2008, natural gas prices spiked to \$13.68 per thousand cubic feet and then subsided along with other energy fuels. Average annual natural gas spot prices (Henry Hub) increased 27 percent in 2008 to \$8.89 per MMBtu, fluctuating in a range of \$6-13 per MMBtu over the course of the year.

Natural gas consumption by the electric power sector decreased 2 percent in 2008, primarily due to the economy, a cooler winter in some of the regions that primarily consume natural gas for generation and greater availability. Net generation from natural gas (876.9 billion kWh) was down 2.2 percent and represented a 21.3 percent share of total net generation, down slightly from 21.6 in 2007. The average cost of natural gas delivered to electric generating plants was \$9.11 per MMBtu in 2008, \$7.11 per MMBtu in 2007 and \$6.94 MMBtu in 2006, according to EIA.

In general, the U.S. nuclear power fleet has increased capacity utilization levels in recent years (currently averaging a near record 91.5 percent capacity factor). There are 104 nuclear reactor units in operation in the U.S., and many of them are running longer between maintenance outages and have reduced the duration of each scheduled outage. The Nuclear Regulatory Commission (NRC) also allows them to increase their plant capacity and output through uprating. According to the NRC, there were 10 plants that received approval for uprates in 2008, and another four plants are expected to receive approval in 2009. Despite ongoing capacity improvements, nuclear power's share of net generation remained about the same - 19.6 percent in 2008, again due to economic and weather factors impacting the demand for power generation nationally.

Hydro, principally in the Pacific region of the country, accounted for a 6 percent share of last year's generation. Rainfall was more sufficient through much of 2008

resulting in a small hydro power generation increase of 0.2 percent.

Although only 1.3 percent of total U.S. generation, wind represented the largest percent increase in electric power generation in 2008, up 51 percent.

Stockpile Inventory Levels – Coal inventories reached 199.2 million tons in 2008, an increase of 3.3 percent over the previous year. Stockpiles in the electric power sector were estimated to have increased 7.8 percent through the end of 2008 to 163.1 million tons, up 11.8 million tons from 2007. EIA estimated total producer and distributor coal stockpile levels were 27.3 million tons at the end of 2008, down 19.6 percent (or 6.7 million tons) from the end of 2007. Stockpiles by end-use sectors, excluding the electric power sector, increased 16.9 percent to 8.8 million tons. Stockpiles are expected to increase in 2009 given substantially lower demand levels.

Weather – Weather patterns requiring greater use of heating resulted in greater demand for coal generation. However, according to EIA, the summer was cooler than 2007 and cooling degree-days in 2008 were down 11.1 percent, particularly in some of the primary coal consuming regions (degree-days are a relative measure of outdoor temperatures used as an index of energy use.) Hurricanes Gustav (August) and Ike (September) had very little impact on the coal market. Severe weather and flooding in the Midwest in June slowed coal traffic, but did not pose any problems for coal customers.

Transportation – U.S. freight railroads originated nearly 7.7 million carloads of coal in 2008, up 3.5 percent from 2007 according to the Association of American Railroads (AAR). Coal shipment details for 2008 from the Waterborne Commerce Statistics Center are not yet available, but the center's tonnage indicator report reveals that 2008 coal and coke tonnages, 152.5 million, were up 4.1 percent from the 2007 level. Great Lakes shipments were 39.8 million tons, up 1.3 percent.

Economic Growth in 2008 – Gross Domestic Product, as measured in real terms, increased 1.1 percent in 2008, according to the Bureau of Economic Analysis (BEA), a much slower growth pace than 2007, with the economy moving into recession in the last half of the year.

#### Other Factors Impacting Coal –

- According to EIA preliminary data, average delivered coal prices to electric utilities were up 14 percent in 2008 to \$41.23 per ton, while coal prices to the industrial sector (excluding coke plants) were up nearly 17 percent to \$63.44 per ton. The average price of coal being delivered to coke plants was up 24 percent to \$118.09 per ton. Electric generators paid \$2.05 per MMBtu for coal in 2008, up 15 percent over 2007. Unlike natural gas and petroleum, delivered coal price fluctuations in general tend to be tempered by the fact that most coal is sold under forward (year-ahead) contracts rather than on the spot market.
- The blending with, or substitution of, lower-Btu Western coal from the Powder River Basin for Eastern coal continues to result in rising coal

consumption to maintain equivalent electricity output.

- Operating cost increases abated somewhat in 2008 as the economy began slowing, though geologic problems in the East, permit delays, escalating fuel and labor costs were issues again in 2008.

## **Major Coal Company Asset Acquisitions, Sales and Other Activities**

Some of the recent U.S. coal company sales, acquisitions and other industry activities included:

**Alpha Natural Resources, Inc.** - Alpha and Cliffs Natural Resources Inc. began working on a potential merger in July 2008. Due to the steel market contraction later in the year, the companies abandoned the plan in November 2008.

Alpha sold some of its underground coal reserves known as the Kentucky May Property to a private coal producer in October 2008.

In May 2009, Alpha announced its intent to acquire Foundation Coal Holdings in an all-stock buy-out that is expected to make it the third largest coal company in terms of revenue. The transaction, with an estimated value of \$2 billion, is expected to be finalized later this year.

**America West Resources, Inc.** – Utah coal operator America West announced in December 2008 that its Hidden Splendor Resources, Inc. subsidiary had emerged from Chapter 11 bankruptcy.

**ArcelorMittal** – Leading world steel producer, ArcelorMittal, acquired Central Appalachian region mining company Mid Vol Coal Group's metallurgical coal assets in June 2008.

In July, the company agreed to acquire the Concept Group mine and reserves adjacent to the Mid Vol Coal Group operations it had just purchased.

**Arch Coal, Inc.** – Arch announced an agreement to buy Jacobs Ranch mine assets from Rio Tinto Energy America in March 2009.

**BHP Billiton** – In November 2007, BHP made an initial offer (pending regulatory approval) to purchase all of Rio Tinto Limited and Rio Tinto plc shares. Rio Tinto rejected the offer on the grounds that the offer undervalued Rio Tinto and its future prospects. BHP made another offer in February 2008, which was again rejected. BHP announced in November 2008 that it would no longer pursue its offer to acquire Rio Tinto due to worsening global economic factors.

**Black Diamond Mining Co., LLC** – Black Diamond was forced into bankruptcy in February 2008.

**C.W. Mining Co.** - C.W. Mining was forced into bankruptcy in January 2008.

**International Coal Group, Inc. (ICG)** – ICG acquired the former Powell Mountain mining operations in May 2008.

**James River Coal Co.** – James River agreed to purchase some coal reserves and permits from Cheyenne Resources, Inc. in June 2008.

**Jim Walter Resources, Inc.** – Jim Walter purchased Taft Coal Sales & Associates mines and reserves in September 2008. In April 2009, the company announced the company name change to Walter Energy, Inc.

**Massey Energy Co.** – In October 2008, Massey acquired the Mountaineer #2 Mine and reserves in West Virginia.

Massey completed the acquisition of various residual coal assets of The Brinks Company in November 2008.

**Mechel Mining OAO** – In April 2009, Mechel, a leading Russian mining and metals company, announced that it had a definitive agreement with Bluestone Coal Group to acquire Bluestone's coal production and reserve assets in West Virginia.

**Monterey Coal Co.** – Monterey, owned by ExxonMobil, placed its Monterey No. 1 underground mine up for sale in the summer of 2006. Negotiations for the mine sale to Carlin Acquisition Group fell through in November 2007, and ExxonMobil officially closed the mine on December 31, 2007. In January 2009, ExxonMobil sold the mine to Cline Group affiliate, Macoupin Energy. Shortly after, Natural Resource Partners purchased the mine's coal reserves and related infrastructure assets.

**Murray Energy Corp.** – Murray announced in early 2008 that its Galatia Complex in Illinois was for sale.

**National Coal Corp.** – National Coal completed the sale of its Straight Creek coal assets in Kentucky to Xinerdy Corp. in April 2008.

**Patriot Coal Corp.** – In July 2008, Patriot acquired Magnum Coal Company (Arch's 2005 Appalachian coal spin-off).

**Severstal Resources** – Severstal, Russia's largest steelmaker, acquired Pennsylvania based PBS Coals Corp. in November 2008.

**United Coal Company** – Metinvest Group, a Ukrainian steel and mining company, acquired United Coal in April 2009.

### **Major Coal Producing Companies, Mines and Mine Complexes in 2008 (Tables 1-4)**

Table 1, compiled by the National Mining Association from data collected through a survey of major coal producers, shows 2008 production for 43 coal producing companies in the United States. In 2008, Peabody Energy Corporation was the largest coal producer in the U.S., with output (including sales) of 200.4 million tons, representing 17.1 percent of total U.S. coal production. The second largest was Rio Tinto Energy America, with 144 million tons, representing 12.3 percent of total U.S. coal production. Ranking third was Arch Coal, Inc. with 140 million tons, 12 percent of U.S. production. The fourth largest coal producer, Foundation Coal Corporation, had output of 69.4 million tons, 5.9 percent of U.S. production. The fifth largest producer was CONSOL Energy Inc., with 65.1 million tons, 5.6 percent of

production. The top five coal producing companies in the survey account for approximately 53 percent of total U.S. production, while the top ten account for about 68 percent.

According to the survey (Table 2), the top five underground mines in terms of production were CONSOL's Enlow Fork Mine in Pennsylvania, with 11.1 million tons; CONSOL's Bailey Mine in Pennsylvania with 10 million tons; CONSOL's McElroy Mine in West Virginia with 9.6 million tons; Peabody's Twentymile Mine in Colorado, with 8.6 million tons; and Arch's Sufco Mine in Utah, with 7.4 million tons.

The five top producing surface mines (Table 3) in 2008 were Peabody Energy's North Antelope/Rochelle Mine, with 97.5 million tons; the Black Thunder Mine (Arch Coal), with 88.5 million tons; the Jacobs Ranch Mine (Rio Tinto Energy America), with 42.1 million tons; the Cordero Rojo Mine (Rio Tinto Energy America), with 40 million tons; and the Antelope Mine (Rio Tinto America), with 35.8 million tons. All are located in Wyoming's Powder River Basin coal region.

Table 4 shows the 2008 output of major multi-mine production complexes. Peabody Energy's Somerville Complex in Indiana was the largest multi-mine complex with 7.9 million tons; second was Murray Energy's Galatia complex in Illinois, with 5.3 million tons; third was Massey Energy's Progress Coal Company mining operation in West Virginia, with 5.2 million tons; fourth was Massey Energy's Sidney Coal Company operation in Kentucky, with 5.0 million tons; and fifth was CAM Mining's operation in Kentucky, with 4.7 million tons.

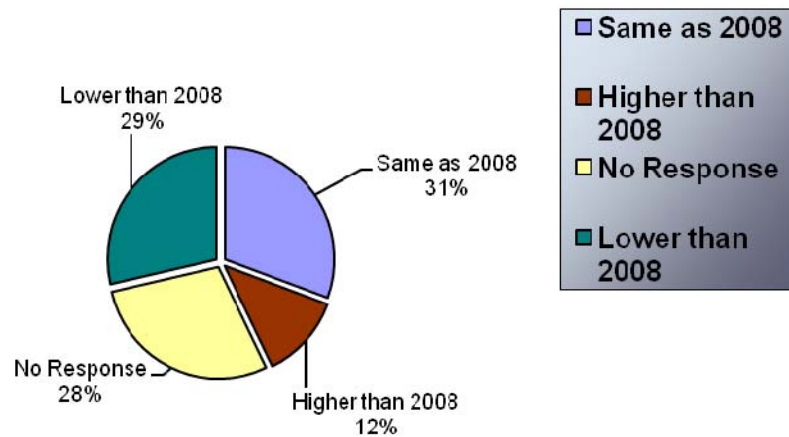
### **Major U.S. Coal Reserve Holders in 2008 (Table 5)**

With about one-third ownership of the nation's coal resources, the U.S. government is the single largest reserve holder with approximately 88 billion tons of estimated recoverable coal reserves. Great Northern Properties Limited Partnership reported the second largest reserve holding with 20 billion tons. Third was Peabody Energy with 9.2 billion tons, and fourth and fifth were CONSOL Energy and Arch Coal with 4.5 billion tons and 2.9 billion tons, respectively. See Table 5 for the rankings of the top holders of U.S. coal reserves.

### **General Outlook for 2009 U.S. Coal Production**

Coal companies were asked for their views on the outlook for 2009 U.S. coal production. Reflecting less optimism for 2009 than 2008, only 12 percent of the 49 survey respondents expected a stronger production year, down from 50 percent in 2008, 31 percent expect 2009 production to be at the same level as last year (up from 27 percent in 2007), 29 percent expect lower production (5 percent in 2008), and 28 percent did not respond to this part of the survey (18 percent in 2008). Note - most respondents reported their 2009 outlook expectations in the early part of 2009 before third quarter 2008 data were available.

## General Outlook for Coal Production in 2009



### Workforce Age Survey

NMA surveyed companies on the average age of each company's mine workforce in 2008. Of the 33 companies responding, 48 percent estimated the average age of their workforce to be in the 45–50 age range (up slightly from 47 percent in 2007), 42 percent estimated it to be in the 40–44 year old range (up from 41 percent in 2007), and 10 percent in the 35–39 age range, down from 12 percent in 2007. As many workers are reaching retirement age, the industry is expected to experience a gradual rise in younger mine workers as a percent of the total workforce. The combination of several mining industry workforce growth initiatives and high wages and good benefits are enticing a new generation of miners to enter the workforce. The nation's current economic situation reinforces the value of stable high paying mining jobs.

### Survey Methodology

Coal producers and reserve holders were asked to provide their company's total U.S. coal production and reserve holdings for 2008. They also were asked to name their mines and the production output of each mine using the following criteria: surface mines with production of 2 million tons or greater; underground mines with production of 1 million tons or greater; and any multi-mine production complex with output of more than 1 million tons. A multi-mine production complex is defined as a operation that is not a single mine, but one that processes production from more than one mine. Every effort was made to include as many coal producers and reserve holders as possible.

Notes: The production figures reported in this survey are intended to reflect ownership of mine production as of the end of calendar year 2008. Companies not included in the list are encouraged to submit data for next year. The National Mining Association has conducted a survey of major coal producers since the 1980's. The results of prior surveys can be found in earlier editions of NMA's *Coal Producer Survey*, and prior to 1998, in *NMA Facts About Coal*, and *Facts About Coal & Minerals*, and Mining Media Publishing's *Keystone Coal Industry Manual*. The latest edition of NMA's *Coal Producer Survey* report is available in PDF format on the NMA web site: <http://www.nma.org>. NMA greatly appreciates the many contributors to this important annual survey.

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**TABLE 1**  
**Major U.S. Coal Producers - 2008**  
**(Million Short Tons)**

<b>Company</b>	<b>Production Tonnage</b>	<b>Percent of Total U.S.</b>
1. Peabody Energy Corporation <sup>1</sup>	200.4	17.1%
2. Rio Tinto Energy America <sup>2</sup>	144.0	12.3%
3. Arch Coal, Inc. <sup>3</sup>	140.0	12.0%
4. Foundation Coal Corporation	69.4	5.9%
5. CONSOL Energy Inc.	65.1	5.6%
6. Massey Energy Company	41.0	3.5%
7. Patriot Coal Corporation <sup>4</sup>	35.7	3.0%
8. Kiewit Mining Group, Inc. <sup>5</sup>	35.1	3.0%
9. North American Coal Corporation	32.6	2.8%
10. Westmoreland Coal Company	29.3	2.5%
11. Alliance Resource Partners	26.4	2.3%
12. Murray Energy Corporation	25.3	2.2%
13. Alpha Natural Resources, LLC	23.5	2.0%
14. Luminant (formerly TXU and Alcoa Mines)	23.1	2.0%
15. International Coal Group (ICG)	17.8	1.5%
16. BHP Billiton	15.2	1.3%
17. Chevron Mining Inc.	11.1	0.9%
18. James River Coal Company	11.1	0.9%
19. Interwest Mining Company (Sub. of PacifiCorp)	9.7	0.8%
20. TECO Coal Corporation	9.3	0.8%
21. Cumberland Resources Corp. <sup>6</sup>	7.5	0.6%
22. CAM Holding LLC (Rhino Energy and Wexford)	7.2	0.6%
23. Booth Energy Group <sup>6</sup>	6.8	0.6%
24. Jim Walter Resources, Inc.	6.0	0.5%
25. Black Hills Corporation (Wyodak Resources)	6.0	0.5%
26. Western Fuels Association, Inc.	5.7	0.5%
27. United Coal Company	5.4	0.5%
28. Rosebud Mining Company <sup>6</sup>	5.3	0.5%
29. Oxbow Carbon & Minerals Inc. <sup>6</sup>	4.9	0.4%
30. Oxford Mining Company	4.6	0.4%
31. BNI Coal, LTD	4.5	0.4%
32. Vectren Fuels, Inc.	3.5	0.3%
33. Solar Sources, Inc.	3.3	0.3%
34. Dolet Hills Lignite Company (Sub. of Amer. Elec. Pwr.)	3.3	0.3%
35. Cliffs North American, LLC <sup>6</sup>	3.2	0.3%
36. Appalachian Fuels, LLC <sup>6</sup>	2.7	0.2%
37. Trapper Mining Inc.	2.3	0.2%
38. Drummond Company, Inc.	2.3	0.2%
39. National Coal Corporation	1.8	0.2%
40. Usibelli Coal Mine, Inc.	1.5	0.1%
41. Freeman Energy Corporation <sup>6</sup>	1.5	0.1%
42. Jewell Smokeless Coal Corp. (Sunoco)	1.2	0.1%
43. Raven Crest Contracting, LLC	1.0	0.1%
Other Producers	115.0	9.8%
<b>Total U.S. Production <sup>7</sup></b>	<b>1,171.5</b>	<b>100.0%</b>

Notes: Figures are rounded. 2008 data compiled from 2009 NMA survey of major producers. May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition. U.S. production total for 2008 is an EIA preliminary estimate.

<sup>1</sup> Peabody Energy Corp. production figure includes production plus tons sold, excluding trading and brokerage operations.

<sup>2</sup> Rio Tinto America production figure includes 50 percent interest in Decker Mine.

<sup>3</sup> Arch Coal, Inc. production figure includes tons sold plus brokered coal.

<sup>4</sup> Patriot production figure includes Magnum tonnage.

<sup>5</sup> Kiewit production figure includes 50 percent interest in Decker Mine.

<sup>6</sup> Department of Labor, Mine Safety & Health Administration 2008 preliminary data.

<sup>7</sup> Department of Energy, Energy Information Administration 2008 preliminary data.

TABLE 2

**Major U.S. Underground Coal Mines - 2008 <sup>r/</sup>  
(Million Short Tons)**

<u>Mine Name</u>	<u>Location</u>	<u>Tonnage</u>	<u>Operating Company</u>
1. Enlow Fork	Pennsylvania	11.1	CONSOL Energy Inc.
2. Bailey	Pennsylvania	10.0	CONSOL Energy Inc.
3. McElroy	West Virginia	9.6	CONSOL Energy Inc.
4. Twentymile	Colorado	8.6	Peabody Energy Subsidiary
5. SUFCO	Utah	7.4	Arch Coal, Inc.
6. Cumberland Resources	Pennsylvania	7.3	Cumberland Coal Resources, LP (Foundation)
7. Century	Ohio	6.9	American Energy Corp. (Murray)
8. Emerald Resources	Pennsylvania	6.3	Emerald Coal Resources, LP (Foundation)
9. San Juan	New Mexico	6.3	BHP Billiton
10. West Elk	Colorado	6.1	Arch Coal, Inc.
11. Powhatan No. 6	Ohio	5.7	The Ohio Valley Coal Co. (Murray)
12. Robinson Run	West Virginia	5.6	CONSOL Energy Inc.
13. Blacksville No. 2	West Virginia	5.6	CONSOL Energy Inc.
14. Loveridge	West Virginia	5.2	CONSOL Energy Inc.
15. Warrior	Kentucky	5.1	Warrior Coal, LLC (Alliance)
16. Elk Creek <sup>1/</sup>	Colorado	4.9	Oxbow Mining, LLC
17. Dotiki	Kentucky	4.7	Webster County Coal LLC (Alliance)
18. Dugout Canyon	Utah	4.3	Arch Coal, Inc.
19. Mountaineer II / Mtn. Laurel	West Virginia	4.0	Arch Coal, Inc.
20. Highland	Kentucky	3.9	Highland Mining Co., LLC (Patriot)
21. Deer Creek	Utah	3.9	Energy West Mining Co. (Interwest)
22. West Ridge	Utah	3.8	West Ridge Resources, Inc. (Murray)
23. Gibson	Indiana	3.8	Gibson County Coal, LLC (Alliance)
24. Willow Lake	Illinois	3.7	Peabody Energy Subsidiary
25. Bridger Underground	Wyoming	3.5	Bridger Coal Company (Interwest)
26. Buchanan	Virginia	3.5	CONSOL Energy Inc.
27. Wells	West Virginia	3.4	Eastern Associated Coal Co., LLC (Patriot)
28. Skyline	Utah	3.3	Arch Coal, Inc.
29. Gateway	Illinois	3.2	Peabody Energy Subsidiary
30. Blue Creek No. 4	Alabama	3.2	Jim Walter Resources
31. New Era	Illinois	3.1	American Energy Corp. (Murray)
32. Federal	West Virginia	3.1	Eastern Associated Coal Co., LLC (Patriot)
33. Big Mountain	West Virginia	3.1	Pine Ridge Coal Co., LLC (Patriot)
34. Rockspring	West Virginia	3.0	Rockspring Development, Inc. (Foundation)
35. North River	Alabama	2.9	Chevron Mining Inc.
36. Blue Creek No. 7	Alabama	2.9	Jim Walter Resources
37. Pattiki	Illinois	2.6	White County Coal LLC (Alliance)
38. Mettiki	West Virginia	2.5	Mettiki Coal LLC (Alliance)
39. Prosperity	Indiana	2.4	Five Star Mining, Inc. (Vectren)
40. Panther	West Virginia	2.3	Panther LLC (Patriot)
41. Viper	Illinois	2.3	ICG Illinois, LLC
42. Shoal Creek	Alabama	2.3	Drummond Company Inc.
43. Paradise	Kentucky	2.2	KenAmerican Resources, Inc. (Murray)
44. Air Quality No. 1	Indiana	1.9	Peabody Energy Subsidiary
45. Mine 84	Pennsylvania	1.8	CONSOL Energy Inc.
46. MC Mining	Kentucky	1.7	MC Mining, LLC (Alliance)
47. Matrix Energy No. 1	Kentucky	1.6	Matrix Energy LLC (Booth)
48. Deep Mine No. 26	Virginia	1.6	Paramont Coal Company, LLC (Alpha)
49. Hopedale	Ohio	1.5	Rhino Energy LLC (CAM)
50. Francisco	Indiana	1.5	Peabody Energy Subsidiary
51. New Future	Illinois	1.4	American Energy Corp. (Murray)
52. Crown III <sup>1/</sup>	Illinois	1.4	Freeman United Coal Co.
53. Excel <sup>2/</sup>	Kentucky	1.4	Excel Mining, LLC (Alliance)
54. Horsecreek Eagle	West Virginia	1.3	Marfork Coal Company (Massey)
55. Cloverfork	Kentucky	1.2	Arch Coal, Inc.
56. Alma	West Virginia	1.2	Logan County Mine Services (Massey)
57. Kittanning	West Virginia	1.1	Kingwood Mining Company, LLC (Alpha)
58. Elkhorn 1	Kentucky	1.1	Perry County Coal Corp. (TECO)
59. Emery	Utah	1.1	CONSOL Energy Inc.
60. Rockhouse	Kentucky	1.1	Sidney Coal Company (Massey)
61. Shoemaker	West Virginia	1.1	CONSOL Energy Inc.
62. Poplar Ridge	West Virginia	1.1	Brooks Run Mining, LLC (Alpha)
63. Dodge Hill	Kentucky	1.0	Dodge Hill Mining Co., LLC (Patriot)
64. Oak Grove <sup>1/</sup>	Alabama	1.0	Cliffs North American Coal, LLC

Notes: Figures are rounded. 2008 data compiled from 2009 NMA survey of major producers.

May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.

<sup>1/</sup> Department of Labor, Mine Safety & Health Administration, 2008 preliminary data.

<sup>2/</sup> Includes Mine #1 and Van Lear.

**<sup>r/</sup> Report revised 6/10/09 to include New Era and New Future mines**

TABLE 3

**Major U.S. Surface Coal Mines - 2008  
(Million Short Tons)**

	<b>Mine Name</b>	<b>Location</b>	<b>Tonnage</b>	<b>Operating Company</b>
1.	North Antelope/Rochelle	Wyoming	97.5	Peabody Energy Subsidiary
2.	Black Thunder	Wyoming	88.5	Arch Coal, Inc.
3.	Jacobs Ranch	Wyoming	42.1	Rio Tinto Energy America
4.	Cordero Rojo	Wyoming	40.0	Rio Tinto Energy America
5.	Antelope	Wyoming	35.8	Rio Tinto Energy America
6.	Caballo	Wyoming	31.2	Peabody Energy Subsidiary
7.	Belle Ayr	Wyoming	28.7	Foundation Coal West, Inc.
8.	Buckskin	Wyoming	26.1	Buckskin Mining Co. (Kiewit)
9.	Eagle Butte	Wyoming	20.4	Foundation Coal West, Inc.
10.	Rawhide	Wyoming	18.4	Peabody Energy Subsidiary
11.	Spring Creek	Montana	17.9	Rio Tinto Energy America
12.	Freedom	North Dakota	14.6	Coteau Properties Co. (North American)
13.	Rosebud	Montana	13.1	Western Energy Co. (Westmoreland)
14.	Coal Creek	Wyoming	11.5	Arch Coal, Inc.
15.	Martin Lake	Texas	10.6	Luminant Mining
16.	Navajo	New Mexico	8.9	BHP Billiton
17.	Kayenta	Arizona	8.0	Peabody Energy Subsidiary
18.	Falkirk	North Dakota	7.5	The Falkirk Mining Co. (North American)
19.	Jewett	Texas	6.5	Texas Westmoreland Coal Co.
20.	Decker	Montana	6.4	Decker Coal Co. (Kiewit / Rio Tinto)
21.	Absaloka	Montana	6.4	Westmoreland Resources Inc.
22.	Wyodak	Wyoming	6.0	Wyodak Resources Dev. Corp. (Black Hills)
23.	Dry Fork	Wyoming	5.3	Western Fuels-Wyoming
24.	Monticello	Texas	5.1	Luminant Mining
25.	Twilight MTR	West Virginia	5.1	Progress Coal Co. (Massey)
26.	Kemmerer	Wyoming	5.0	Chevron Mining Inc.
27.	Colowyo	Colorado	4.9	Rio Tinto Energy America
28.	Center	North Dakota	4.5	BNI Coal, Ltd.
29.	Sabine	Texas	4.1	Sabine Mining (North American)
30.	Three Oaks	Texas	3.8	Luminant Mining
31.	Black Butte	Wyoming	3.7	Black Butte Coal Co. (Kiewit)
32.	Big Brown	Texas	3.6	Luminant Mining
33.	Lee Ranch	New Mexico	3.4	Peabody Energy Subsidiary
34.	Coal-Mac	West Virginia	3.4	Arch Coal, Inc.
35.	Somerville Central	Indiana	3.4	Peabody Energy Subsidiary
36.	Farmersburg	Indiana	3.3	Peabody Energy Subsidiary
37.	Dolet Hills Lignite	Louisiana	3.3	Dolet Hills Lignite Co. (AEP)
38.	Birch River	West Virginia	3.2	ICG Eastern, LLC
39.	Black Castle	West Virginia	3.1	Black Castle Mining Co. (Massey)
40.	San Miguel	Texas	3.1	San Miguel Lignite (North American)
41.	McKinley	New Mexico	3.1	Chevron Mining Inc.
42.	Beulah	North Dakota	3.1	Dakota Westmoreland Corp.
43.	Red Hills	Mississippi	2.8	Mississippi Lignite (North American)
44.	Wildcat MTR	West Virginia	2.7	Nicholas Energy Co. (Massey)
45.	Republic Energy MTR	West Virginia	2.6	Republic Energy Mining Co. (Massey)
46.	El Segundo	New Mexico	2.6	Peabody Energy Subsidiary
47.	Bridger	Wyoming	2.4	Bridger Coal Co. (Interwest)
48.	Trapper	Colorado	2.3	Trapper Mining Inc.
49.	Somerville South	Indiana	2.3	Peabody Energy Subsidiary
50.	Wildcat Hills	Indiana	2.3	Peabody Energy Subsidiary
51.	Somerville North	Indiana	2.2	Peabody Energy Subsidiary
52.	Calvert	Texas	2.1	Walnut Creek Mining Co. (Kiewit)

Notes: Figures are rounded. 2008 data compiled from a 2009 NMA survey of major producers.

May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.

1/ Department of Labor, Mine Safety & Health Administration, 2008 preliminary data.

**TABLE 4**  
**Major Multi-Mine Production Complexes - 2008**  
**(Million Short Tons)**

<b>Complex Name</b>	<b>Location</b>	<b>Tonnage</b>	<b>Company</b>
1. Somerville Complex	Indiana	7.9	Peabody Energy Subsidiary
2. Galatia	Illinois	5.3	The American Coal Company (Murray)
3. Progress Coal Company	West Virginia	5.2	Massey Energy Co.
4. Sidney Coal Company	Kentucky	5.0	Massey Energy Co.
5. CAM Mining	Kentucky	4.7	CAM Holdings, LLC
6. Logan County	West Virginia	4.7	Massey Energy Co.
7. ICG Hazard	Kentucky	4.1	ICG Hazard, LLC
8. Marfork Coal Company	West Virginia	4.0	Massey Energy Co.
9. AMVEST-Fola Complex	West Virginia	3.9	Amvest Corporation (CONSOL)
10. Coal-Mac	West Virginia	3.7	Arch Coal, Inc.
11. Hobet	West Virginia	3.7	Patriot Coal Corp.
12. Francisco Complex	Indiana	3.4	Peabody Energy Subsidiary
13. Nicholas Energy (Alex)	West Virginia	3.3	Massey Energy Co.
14. Premier	Kentucky	3.3	Premier Elkhorn Coal Co. (TECO)
15. Triad	Indiana	3.1	Triad Mining, Inc. (James River)
16. Perry County	Kentucky	3.1	Perry County Coal Corp. (TECO)
17. Apogee	West Virginia	3.1	Patriot Coal Corp.
18. Samples	West Virginia	3.1	Patriot Coal Corp.
19. Black Castle	Kentucky	3.1	Massey Energy Co.
20. Wildcat Hills	Illinois	3.0	Peabody Energy Subsidiary
21. Blue Grass	Kentucky	2.8	Patriot Coal Corp.
22. Lone Mountain	Kentucky	2.7	Arch Coal, Inc.
23. Clintwood	Kentucky & Virginia	2.6	Clintwood Elkhorn Mining (TECO)
24. Rocklick Business Unit	West Virginia	2.6	Patriot Coal Corp.
25. Republic Energy	West Virginia	2.6	Massey Energy Co.
26. Erbacon Preparation Plant	West Virginia	2.6	Brooks Run Mining Company, LLC (Alpha)
27. Jones Fork	Kentucky	2.5	CONSOL of Kentucky
28. Cumberland River	Virginia	2.4	Arch Coal, Inc.
29. Bledsoe	Kentucky	2.3	Bledsoe Coal Corporation (James River)
30. Elk Run Coal Company	West Virginia	2.2	Massey Energy Co.
31. Wellmore	Virginia	2.1	Wellmore Coal Co. (United)
32. Kanawha Eagle	West Virginia	2.1	Patriot Coal Corp.
33. McClure Preparation Plant	Virginia	2.1	Dickenson Russell Coal Company, LLC (Alpha)
34. Sapphire	Kentucky	2.1	Sapphire Coal Co. (United)
35. McCoy	Kentucky	2.1	McCoy Elkhorn Coal Corp. (James River)
36. Toms Creek Preparation Plant	Virginia	1.9	Paramount Coal Company Virginia, LLC (Alpha)
37. Cannelburg	Indiana	1.9	Solar Sources, Inc.
38. Blue Diamond	Kentucky	1.9	Blue Diamond Coal Co. (James River)
39. Miller Creek	West Virginia	1.9	CONSOL of Kentucky
40. Independence Coal Company	West Virginia	1.8	Massey Energy Co.
41. Edwight Mining	West Virginia	1.8	Massey Energy Co.
42. Pioneer/Pax	West Virginia	1.6	Pioneer Fuel Corp. (Foundation)
43. CAM Ohio (Hopedale)	Ohio	1.5	CAM Holdings, LLC
44. Stirrat	West Virginia	1.5	Massey Energy Co.
45. Moss 3 Preparation Plant	Virginia	1.4	Dickenson Russell Coal Company, LLC (Alpha)
46. Kittaning Preparation Plant	West Virginia	1.4	Kingwood Mining Company, LLC (Alpha)
47. Kepler preparation Plant	West Virginia	1.4	Riverside Mining (Alpha)
48. Black Bear Preparation Plant	West Virginia	1.3	Cobra Mining (Alpha)
49. Leeco	Kentucky	1.3	Leeco, Inc. (James River)
50. Mammoth	West Virginia	1.2	Massey Energy Co.
51. Southern WV Resources	West Virginia	1.2	CONSOL of Kentucky
52. Endurance	West Virginia	1.2	Massey Energy Co.
53. Jewell Preparation Plant	Virginia	1.2	Jewell Smokeless Coal Corp. (Sunoco)
54. Roxana Preparation Plant	Kentucky	1.2	Enterprise Mining Company, LLC (Alpha)
55. Rawl	West Virginia	1.1	Massey Energy Co.
56. ICG East KY	Kentucky	1.1	ICG East Kentucky, LLC
57. Flint Ridge	Kentucky	1.1	ICG Hazard, LLC
58. Kingston	West Virginia	1.0	Kingston Resources, Inc. (Foundation)
59. Pocahontas	West Virginia	1.0	Pocahontas Coal Company (United)
60. Sentinel	West Virginia	1.0	Sentinel Division (ICG)
61. Remington	West Virginia	1.0	Patriot Coal Corp.
62. Laurel Creek	West Virginia	1.0	Laurel Creek Co., Inc. (Foundation)

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May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.  
A multimine complex is a facility that processes production from more than one mine.

**TABLE 5**  
**Major Holders of U.S. Coal Reserves - 2008**  
**(Billion Short Tons)**

Holder	Estimated Reserves
1. U.S. Government	88.000 *
2. Great Northern Properties Limited Partnership	20.000
3. Peabody Energy Corporation	9.200
4. CONSOL Energy Inc.	4.500
5. Arch Coal, Inc.	2.900
6. The North American Coal Corporation	2.400
7. Massey Energy Company	2.300
8. Natural Resource Partners LP	2.097
9. Patriot Coal Corp. (formerly Peabody mines)	1.839
10. Murray Energy Corporation	1.835
11. Foundation Coal Corporation	1.749
12. Pocahontas Land Corporation (Norfolk Southern)	1.740
13. Rio Tinto Energy America	1.500
14. International Coal Group (ICG)	1.000
15. Luminant Mining (formerly TXU and Alcoa mines)	0.941
16. Penn Virginia Resource Partners, LP	0.827
17. Alliance Resources Partners	0.686
18. BNI Coal, LTD	0.600
19. Alpha Natural Resources	0.600
20. Kentucky River Properties LLC	0.556
21. Kiewit Mining Group, Inc.	0.493
22. Usibelli Coal Mine, Inc.	0.470
23. Westmoreland Coal Company	0.423
24. CAM Holdings LLC (Rhino Energy LLC/Wexford)	0.298
25. Black Hills Corporation (Wyodak Resources Dev.)	0.294
26. BHP Billiton	0.282
27. James River Coal Company	0.277
28. TECO Coal Corporation	0.270
29. Western Fuels Association, Inc.	0.262
30. Interwest Mining Company (PacifiCorp)	0.219
31. Chevron Mining Inc.	0.200
32. United Coal Company	0.176
33. Jim Walter Resources, Inc.	0.152
34. Western Pocahontas Properties	0.150
35. Vectren Fuels, Inc.	0.120
36. Jewell Smokeless Coal Corp. (Sunoco)	0.100
37. Drummond Company, Inc.	0.080
38. Dolet Hills Lignite Company (AEP)	0.050
39. National Coal Corporation	0.040
40. Solar Sources Inc.	0.027
41. Trapper Mining Inc.	0.017
42. Argus Energy WV, LLC	N/A
43. Freeman Energy Corporation	N/A
44. Cliffs North American Coal (formerly PinnOak)	N/A
45. Oxbow Carbon & Minerals Inc.	N/A
46. Oxford Mining Co.	N/A
47. Cumberland Resources Corp.	N/A

Notes: 2008 data compiled from 2009 NMA survey of major producers. May not be all-inclusive.

Any companies not included in this listing are invited to submit data for the next edition.

\* U.S. Government total is an NMA calculation based on federal ownership of about one-third of the United States' coal resources (Bureau of Land Management, 1993) and estimated recoverable reserves of 263 billion short tons (Energy Information Administration, 2007).

N/A = Not Available.