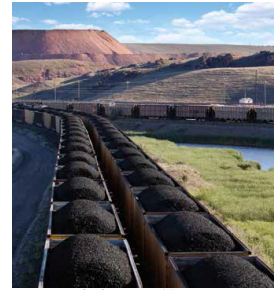


Coal extraction data

Richard Heede
Climate Mitigation Services
 File started: 11 January 2005
 Last modified: February 2020

Copyright Climate Accountability Institute



Peabody AnnRpt 2014.

Peabody Energy, USA

www.peabodyenergy.com St. Louis

yellow column indicates original reported units

Investor-owned

Production / Extraction data

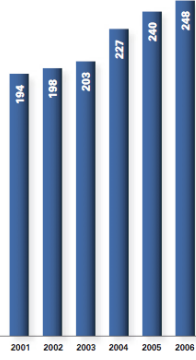
Year	Sub-Bituminous		Metallurgical		Total Coal	
	Gross production	Gross production	Gross production	Gross production	Gross production	Gross production
	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr
	Peabody Coal 1883-2018	Sinclair Coal tk - 1954	Black Beauty Coal 1987-2002			
	Founded 1883					

- 14 **1944**
- 15 **1945**
- 16 **1946**
- 17 **1947**
- 18 **1948**
- 19 **1949**
- 20 **1950**
- 21 **1951**
- 22 **1952**
- 23 **1953**
- 24 **1954**
- 25 **1955**
- 26 **1956**
- 27 **1957**
- 28 **1958**
- 29 **1959**
- 30 **1960**
- 31 **1961**
- 32 **1962**
- 33 **1963**
- 34 **1964**
- 35 **1965**
- 36 **1966**
- 37 **1967**
- 38 **1968**
- 39 **1969**
- 40 **1970**
- 41 **1971**
- 42 **1972**
- 43 **1973**
- 44 **1974**
- 45 **1975**
- 46 **1976**
- 47 **1977**
- 48 **1978**
- 49 **1979**
- 50 **1980**
- 51 **1981**
- 52 **1982**
- 53 **1983**
- 54 **1984**
- 55 **1985**
- 56 **1986**
- 57 **1987**
- 58 **1988**
- 59 **1989**
- 60 **1990**
- 61 **1991**
- 62 **1992**
- 63 **1993**
- 64 **1994**
- 65 **1995**
- 66 **1996**
- 67 **1997**
- 68 **1998**
- 69 **1999**
- 70 **2000**
- 71 **2001**
- 72 **2002**
- 73 **2003**
- 74 **2004**
- 75 **2005**
- 76 **2006**
- 77 **2007**
- 78 **2008**
- 79 **2009**
- 80 **2010**
- 81 **2011**
- 82 **2012**
- 83 **2013**
- 84 **2014**
- 85 **2015**
- 86 **2016**
- 87 **2017**
- 88 **2018**

0.4	Keystone Manual	Company's St Ellen mine only
2.0	interpolated	
3.5	interpolated	
5.1	interpolated	
6.6	interpolated	
8.2	Peabody AnnRpts	
13.5		
10.9	Own production only	
8.2		
9.4		
11.5		
21.8		
23.1		
22.2		
25.8		
28.7		
29.6		
32.8		
39.2		
46.5		
48.8		
54.1		
55.9	interpolated	
57.8	interpolated	
59.6	Keystone Manual 1969-1989	
67.9		
56.0		
71.6		
69.9		
68.1		
73.1		
70.5		
65.4		
52.5		
64.4		
59.1		
51.7		
57.7		
53.4		
64.4		
62.0		
66.7		
79.0		
81.5		
86.7		
93.3	Peabody AnnRpts	
104.4	interpolated	
115.4	interpolated	
126.5	interpolated	
137.5	interpolated	
148.6	Peabody AnnRpts	
154.2	interpolated	
159.7	interpolated	
165.3	interpolated	
170.8	interpolated	
176.4	Peabody AR 2006	
194.0	Peabody AR 2006	
198.0	Peabody AR 2006	
203.2	Peabody AR 2006	
227.0	Peabody AR 2006	
240.0	Peabody AR 2006	
248.0	Peabody AR 2006	
236.1	Peabody AR 2008	
255.5	Peabody AR 2008	
243.6	Peabody AR 2010	
245.9	Peabody AR 2010	
228.9	Peabody AR 2013	
229.0	Peabody AR 2013	
222.4	Peabody AR 2013	
229.6	Peabody 10-K 2015	
213.7	Peabody 10-K 2015	
179.8	Peabody 10-K 2016	
189.1	Peabody 10-K 2017	
182.1	Peabody 10-K 2018	

Peabody

Sales Volume
(Short Tons in Millions)



Peabody Annual Rpt 2006

Black Beauty	
4.3	Keystone Manual
4.2	Keystone Manual
4.8	interpolated
5.3	interpolated
5.9	interpolated
6.5	interpolated
7.1	interpolated
7.6	EIA stats
6.7	
6.6	
11.3	
12.8	interpolated
14.4	interpolated
16.0	2000-2002 Black Beauty coal prod is NOT included in Peabody total
20.1	
18.9	

coal sold, 1990-2008

coal sold includes "trading and brokerage"

"trading & brokerage" totals 25.4 million sh tons

Total	7,465	153	-	7,562	6,860
--------------	--------------	------------	----------	--------------	--------------

Coal Types:	Lignite	0.00%	Thermal coal (on ave)	92.88%	Metallurgical	7.12%	100.00%
			2016 only		176 million tons		
			Bituminous & Subbitum.				

Peabody's Global Operations

Geographic Region/Operation	2006 Sales	Mine Type	Type of Coal	Btu per Pound	Proven & Probable Reserves
Powder River Basin					
Caballo	32.8	S	S	8,600	931
North Antelope Rochelle	88.5	S	S	8,800	1,171
Ravindra	17.1	S	S	8,600	407
Additional Reserves					958
Total	138.4				3,467
Southwest/Colorado					
Kayenta	8.0	S	S	11,000	270
Lee Ranch	5.2	S	S	10,000	155
Twentymile	9.8	U	S	10,800	73
Other Assigned	0.1	S	S	10,600	11
Additional Reserves					698
Total	22.1				1,207
Midwest					
Air Quality	2.2	U	S	10,700	58
Dodge Hill	1.1	U	S	11,100	8
Farmersburg	3.8	S	S	10,300	107
Francisco Surface	2.0	S	S	10,500	6
Francisco Underground	1.1	U	S	10,600	22
Gateway	2.4	U	S	10,300	20
Highland	3.5	U	S	11,400	98
Miller Creek	1.6	S	S	10,000	30
Patriot, Freedom	4.0	S/U	S	10,800	41
Vermilion Grove	1.7	U	S	10,500	19
Somerville Central	3.6	S	S	10,300	4
Somerville North	2.4	S	S	10,500	7
Somerville South	2.5	S	S	10,000	14
Viking	1.5	S	S	10,700	8
Wildcat Hills Surface/Underground	2.4	S/U	S	10,300	10
Willow Lake	3.5	U	S	11,200	64
Additional Reserves					3,864
Total	39.3				4,170
Appalachia					
Big Mountain	2.0	U	S	12,300	34
Federal	4.5	U	S	13,300	31
Harris	1.5	U	S/M	13,800	8
Kanawha Eagle	2.0	U	S/M	13,100	53
Rocklick	2.2	U	S/M	13,100	13
Wells	3.1	U	S/M	12,800	49
Additional Reserves					367
Total	15.3				556
Australia					
Baralaba	0.2	S	S/P	12,200	2
Burton	4.1	S	S/M	12,400	38
Chain Valley	0.3	U	S	11,900	17
Metropolitan	0.5	U	M	12,700	40
Millennium	-	S	M	12,800	26
North Goonyella/Eaglefield	2.6	U/S	M	12,800	48
North Wambo	-	U	S/P	13,100	138
Wambo Surface	1.3	S	S	12,400	106
Wilkie Creek	2.0	S	S	10,800	223
Wilpington	-	S	S	9,900	165
Total	11.0				803
Total Mining Sales	226.2				10,202
Trading & Brokerage	21.4				
Total Coal Sales	247.6				

Peabody Annual Rpt 2006
 2010 AnnRpt: no heating values rpt'd
 S = steam
 M = metallurgical
 P = pulverized

EIA & NMA data
 shown for comparison
 tons produced, US

119.3
139.0
142.8
142.5
157.1
165.5
140.6
146.1
149.6
156.8

tons produced, world

200.0
212.0
223.7
220.5

Annual World Coal Use Expected to Grow 700 Million Tonnes by 2016

Expected Global Coal Demand
(Tonnes in Millions)



In three years, global coal demand is expected to rise some 700 million tonnes, led by urbanization and industrialization in China and India.

Source: Peabody Global Analytics.
 * Estimated * Projected

Peabody AnnRpt 2013, p. 7.



Peabody AnnRpt 2014.

	Successor		Predecessor	Combined
	Year Ended December 31, 2018	April 2 through December 31, 2017	January 1 through April 1, 2017	Year Ended December 31, 2017
			(Tons in millions)	
Powder River Basin Mining	120.3	94.0	31.0	125.0
Midwestern U.S. Mining	18.9	14.0	4.5	18.5
Western U.S. Mining	14.7	11.3	3.4	14.7
Seaborne Metallurgical Mining	11.0	9.5	2.2	11.7
Seaborne Thermal Mining	19.1	14.6	4.6	19.2
Total tons sold from mining segments	184.0	143.4	45.7	189.1
Corporate and Other	2.7	2.0	0.4	2.4
Total tons sold	186.7	145.4	46.1	191.5

Peabody Form 10-K for 2018, page 57. Note: CAI excludes "Trading and Brokerage," page 53: In 2018, we produced and sold 182.1 million and 186.7 million tons of coal, respectively, from continuing operations.

Peabody's Leading Global Operations and Reserves

Peabody shipped 251.7 million tons of coal through sales, trading and brokerage activities in 2013 across North America, South America, Europe, Asia, Africa and Australia.

Geographic Region/Operation	2013 Tons Sold	Mine Type	Coal Type	Proven and Probable Reserves ¹
UNITED STATES				
Wyoming/Southern Powder River Basin				
Caballo	9.0	S	T	
North Antelope Rochelle	110.9	S	T	
Rawhide	14.2	S	T	
Southwest/Colorado				
El Segundo	8.4	S	T	
Kayenta	7.9	S	T	
Lee Ranch	0.1	S	T	
Twentymile	7.2	U	T	
Other U.S. West ²	1.1			
Total U.S. West	158.8			4,141
Midwest Illinois				
Cottage Grove	1.9	S	T	
Gateway	2.8	U	T	
Wildcat Hills Underground	1.6	U	T	
Indiana				
Bear Run	8.2	S	T	
Francisco Underground	2.9	U	T	
Somerville Central	2.7	S	T	
Somerville North ³	1.5	S	T	
Somerville South ³	1.5	S	T	
Viking - Corning Pt ⁴	1.1	S	T	
Wild Boar	2.0	S	T	
Other Midwest ²	0.1			
Total U.S. Midwest	26.3			3,199
AUSTRALIA				
Queensland				
Burton	2.1	S	T/M	
Coppabella ⁵	3.1	S	P	
Eaglefield	1.3	S	M	
Middlemount ⁶	-	S	M/P	
Millennium	3.4	S	M/P	
Moorvale ⁵	2.1	S	M/P	
North Goonyella	1.7	U	M	
New South Wales				
Metropolitan	1.4	U	M	
North Wambo Underground ⁷	3.5	U	T/P	
Wambo Open-Cut ³	2.6	S	T	
Wilpinjong	13.7	S	T	
Total Australia	34.9			925
Trading and Brokerage	31.7			
Total	251.7			8,265

Mine Type
 U: Underground
 S: Surface/Open-Cut

Coal Type
 T: Thermal/Steam
 M: Metallurgical
 P: Pulverized Coal Injection (PCI)

¹ Short tons in millions. Results from continuing operations.
² Atributable ownership basis.
³ Primarily consists of purchased coal used to satisfy certain specific coal supply agreements.
⁴ Mines with an outside non-controlling ownership interest.
⁵ Expired to close in the first half of 2014.
⁶ Held through a 73.3% undivided interest in an unincorporated joint venture.
⁷ Held through a 50% equity interest in Middlemount Coal Pty. Ltd. Because Middlemount is accounted for as an unconsolidated equity affiliate, 2013 tons sold from that mine have been excluded above.

Peabody Annual Report 2013, page 14.

Reserves

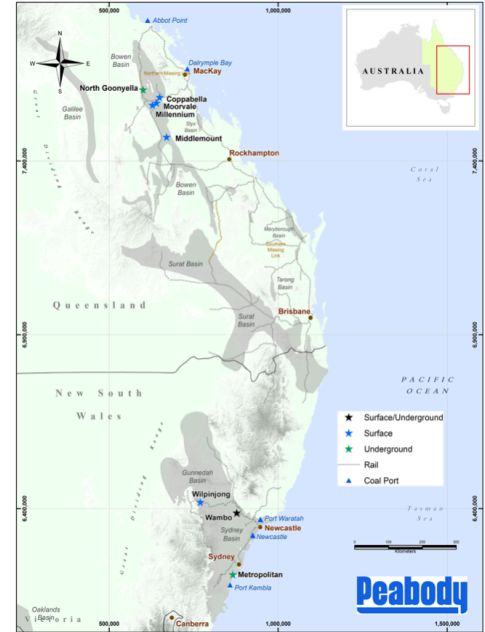
	2017		2016	
	Successor	Predecessor	Combined	Predecessor
	April 2 through December 31	January 1 through April 1	Year Ended December 31	
			(Tons in millions)	
Powder River Basin Mining	94.0	31.0	125.0	113.1
Midwestern U.S. Mining	14.0	4.5	18.5	18.3
Western U.S. Mining	11.3	3.4	14.7	13.7
Australian Metallurgical Mining	9.5	2.2	11.7	13.4
Australian Thermal Mining	14.6	4.6	19.2	21.3
Total tons sold from mining segments	143.4	45.7	189.1	179.8
Trading and Brokerage	2.0	0.4	2.4	7.0
Total tons sold	145.4	46.1	191.5	186.8

Peabody Form 10-K for 2017, page 56.

U.S. Mining Operations - Powder River Basin, Midwestern, Western



Operations maps, 2017, USA and Australia



Geographic Region / Mining Complex	Production			Type of Coal
	Year Ended Dec. 31, 2013	Year Ended Dec. 31, 2012	Year Ended Dec. 31, 2011	
Midwest:				
Bear Run	8.2	7.9	6.5	T
Francisco Underground	2.9	2.8	3.0	T
Gateway	2.8	2.8	3.3	T
Somerville Central	2.6	2.3	3.0	T
Wild Boar	2.1	2.0	1.8	T
Cottage Grove	2.0	2.0	1.9	T
Wildcat Hills Underground	1.6	1.5	1.0	T
Somerville South	1.5	1.4	1.2	T
Somerville North	1.5	1.2	1.4	T
Viking - Corning Pt ⁽⁶⁾	1.1	1.3	1.5	T
Willow Lake (Closed in 2012)	—	2.1	2.2	T
Total	26.3	27.3	26.8	
Powder River Basin:				
North Antelope Rochelle	111.0	107.6	109.1	T
Rawhide	14.2	14.7	15.0	T
Caballo	9.0	16.9	24.1	T
Total	134.2	139.2	148.2	
Southwest:				
El Segundo	8.7	8.6	8.1	T
Kayenta	7.2	7.5	8.1	T
Lee Ranch	—	1.3	2.0	T
Total	15.9	17.4	18.2	
Colorado:				
Twentymile	7.2	8.0	7.7	T
Australia:				
Wilpinjong	13.3	12.2	10.9	T
Wambo ⁽⁶⁾	6.9	6.6	5.8	T/P
Millennium	3.5	3.2	1.9	M/P
Coppabella	3.2	2.8	0.4	P
North Goonyella / Eaglefield	2.3	4.1	2.2	M
Moorvale	2.1	1.9	0.3	M/P
Burton	2.0	1.2	2.1	T/M
Metropolitan	1.5	1.8	1.8	M
Middlemount ⁽⁵⁾	—	—	—	M/P
Total	34.8	33.8	25.4	
Total Continuing Operations	218.4	225.7	226.3	
Discontinued Operations	4.0	3.3	2.6	
Total Assigned	222.4	229.0	228.9	

T: Thermal
 M: Metallurgical
 P: Pulverized Coal Injection

Peabody Annual Report 2013, page 34.

Cell: I9**Comment:** Rick Heede:

Peabody and Company was founded in 1883 by Francis S. Peabody as a coal sales and delivery service in Chicago. Peabody Coal Company opened its first mine in 1885. Peabody (then America's eight largest producer) merged with Sinclair Coal Company in 1954, the nation's third largest producer. Kennecott acquired Peabody in 1968, but an anti-trust suit forced its divestiture in 1976 (to Peabody Holding Company, for \$1.1 billion).
For subsequent company history, see peabodyenergy.com and Jay Pederson (editor) (2000) International Directory of Company Histories.
https://en.wikipedia.org/wiki/Peabody_Energy (Feb2020):

The Peabody Energy company was founded as Peabody, Daniels & Company in 1883 by Francis Peabody, the son of a prominent Chicago lawyer, and a partner. The company bought coal from established mines and sold it to homes and businesses in the Chicago area. In the late 1880s, Francis Peabody bought out his partner's share of the business and the company was incorporated in the state of Illinois under the name Peabody Coal Company in 1890. In 1895, it began operations of its first mine in Williamson County, Illinois and later expanded its operations in Illinois. In 1913, the company won its first long-term contract to supply Chicago Edison Company, the predecessor to utility Commonwealth Edison.

Not shown: section on Climate change denial.

Cell: D11**Comment:** Rick Heede:

Coal production by coal mining companies and state-owned enterprises, including subsidiaries of oil and gas companies.
Coal types produced are not ordinarily reported by coal operators (except for metallurgical coal). We distinguish, where possible and reasonably well known, between hard (bituminous and subbituminous) and soft (lignite or peat) coals, especially for the larger companies operating in regions such as Australia and India where soft coals are predominant. Soft coals have lower carbon content per tonne than do hard coals.

Cell: E15**Comment:** Rick Heede:

"Merged" with Peabody in 1954.

Cell: G15**Comment:** Rick Heede:

Peabody Energy acquired Black Beauty Coal Company in 2002. Oligopoly Watch, www.oligopolywatch.com/2003/09/21.html

Cell: E18**Comment:** Rick Heede:

Keystone Coal Buyers Manual with data for 1945, 1957, and 1958, for production from the "50 Largest Bituminous Coal Mines in the U.S.", p. 421. CMS lists production from one mine only -- St. Ellen in Illinois -- and production from another (Ken, in Kentucky) opened in 1948.

Cell: D23**Comment:** Rick Heede:

Coal production data for 1950 through tk from Peabody Coal Company (various) Annual Reports. Some years report both "own production" plus "sales for others" -- this latter ranges from 0.68 million tons in 1953 to 1.3 million tons in 1960 and 3.2 Mt in 1963. We report only Peabody's own production here.

Cell: E25**Comment:** Rick Heede:

Peabody reports both tons of coal sold from both its own mines and "for others." CMS reports only sales from "own production."

Cell: D40**Comment:** Rick Heede:

Production estimated by interpolation.

Cell: D41**Comment:** Rick Heede:

Peabody was bought by Kennecott, but an anti-trust suit forced its divestment in 1976 (purchased for \$1.1 billion by Peabody Holding Company).

Cell: D42**Comment:** Rick Heede:

Data for 1969-1993 from Key Stone Coal Industry Manual (various).

Cell: D63**Comment:** Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: M65**Comment:** Rick Heede:

Not added to total sales.

Cell: G67**Comment:** Rick Heede:

Black Beauty coal production for 1994-2002 from EIA statistics (various).

Cell: M67**Comment:** Rick Heede:

1994-2003 production from EIA (various) Annual Coal Report, Table 10.

Cell: D68**Comment:** Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: D73**Comment:** Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: H73**Comment:** Rick Heede:

Coal production by Black Beauty, which was acquired by Peabody in 2002, is assumed already counted in Peabody's production totals for 2000 through 2002. Black Beauty production prior to 2000 is added to Peabody, since earlier Peabody AnnRpts could not have anticipated its acquisition.

Cell: D74**Comment:** Rick Heede (Feb10):

Peabody Annual Rpt 2006, page 21: tons sold 2001-2006.

Note: the overlap of coal sold in 2004-2006 between the 2006 and 2008 Annual Reports is substantial (227 vs 200.3 million tons for 2004, respectively). The quantitative difference most likely reflects total production for operating mines that have been sold or closed in the intervening years.

Cell: D80**Comment:** Rick Heede (Feb10):

Peabody Annual Rpt 2008, page 21: tons sold 2007-2008.

Cell: M81**Comment:** Rick Heede:

Peabody (2009) Annual Report 2008, page 18, shows Western U.S. mining of 169.7 million tons, midwestern U.S. mining of 30.7 million tons, Australian mining of 23.7 million tons: total of 224.3 million tons, plus "trading and brokerage" of 31.2 million tons.

In 2007, production totaled 212.0 million tons, and "trading and brokerage" of 24.1 million tons.

"We are the largest private sector coal company in the world, with majority interests in 30 coal operations located throughout all major U.S. coal producing regions, except Appalachia, and international interests in Australia and Venezuela. In 2008, we produced 223.7 million tons of coal and sold 255.5 million tons of coal. Our U.S. sales represented 18% of U.S. coal consumption and were approximately 30% greater than the sales of our closest U.S. competitor." AnnRpt2008, page 20.

"For the year ended December 31, 2008, 82% of our total sales (by volume) were to U.S. electricity generators, 16% were to customers outside the U.S. and 2% were to the U.S. industrial sector." AnnRpt2008, page 20.

Peabody's Venezuelan production is not shown in their production table (reproduced elsewhere on this worksheet), totaling 4.8 million tons (or 25.5 percent thereof). "We own a 25.5% interest in Carbones del Guasare, which owns and operates the Paso Diablo Mine in Venezuela. The Paso Diablo Mine produced approximately 4.8 million tons of steam coal in 2008 for export to the U.S. and Europe." (AnnRpt 2008, p. 21).

Cell: D82**Comment:** Rick Heede:

AR 2010 pdf pg 21: "tons sold" = western US mining+midwestern US mining+Australian mining+ trading and brokerage; Note inconsistency with NMA Coal Producers Survey which shows 192 and 193.6 respectively. CMS does not have sufficient data to deduct "trading and brokerage" from total tons coal sold, since Peabody does not report production but total sold for each year. CMS has not assumed that Peabody's "brokerage" of 11.5 percent above 2010 production of 220.5 million tons is applicable to prior years.

Cell: D87**Comment:** Rick Heede:

Peabody 10-K for 2015. Total tons sold: 228.8 Mt (of which 213.7 Mt from "mining segments"), thus excluding 15.1 Mt from "trading and brokerage." Datum for 2014: 249.8 Mt sold and 229.6 Mt "tons sold from mining segments."

Cell: D89**Comment:** Rick Heede:

Peabody Energy Corp. Form 10-K for 2016, 179.8 Mt "sold from mining segments" 10-K page 56 (excludes trading and brokerage of 7 Mt). "Production," however, totaled 175.6 Mt, of which 12.5 Mt Australian Metallurgical (>12,300 Btu/lb), ie., 7.12%. Powder River 112.2 Mt (~8,600 Btu/lb), Midwestern US 17.8 Mt (~11,200 Btu/lb), Colorado etc 12.3 Mt (9,000-11,200 Btu/lb), and Australian thermal 20.8 Mt (10-11,800 Btu/lb).

Cell: D91**Comment:** Rick Heede:

Peabody Energy (2019) SEC Form 10-K for 2018, page 53: "page 53: In 2018, we produced and sold 182.1 million and 186.7 million tons of coal, respectively, from continuing operations." CAI uses data on production, not the higher sales datum, which includes brokerage.

Cell: J95**Comment:** Rick Heede:

Peabody 10-K for 2016, page 43, shows production slightly lower than "tons sold from mining segments" but provides energy content and coal grade data, of which 12.5 Mt is Australian Metallurgical production.

Cell: G96**Comment:** Rick Heede (Feb10):

More than half of Peabody's coal sales in 2006 came from the company's Powder River Basin in Wyoming (138 of 248 million tons), with a heating value of ~8,800 Btu per pound. Peabody's other mines in Colorado (10,800 Btu/lb), Midwest (10,000 to 11,200 Btu/lb), Appalachia (12,800 to 13,800 Btu/lb), and Australia (10,800 to 12,800 Btu/lb). Bituminous coal ranges from 10,500 to 15,000 Btu/lb, subbituminous from 8,500 to 12,000 Btu/lb (EIA). For the purposes of assigning carbon content and emissions, CMS classifies Peabody's coal production as "thermal coal," running at ~10,000 Btu/lb (in 2004, and declining due to increasing production of western lower-grade coal). This may under-estimate Peabody's historical emissions insofar as Peabody has for most of its history mined bituminous coals in the east and midwest. Get date of Wyoming operations. April 2017: CAI uses production data for 2016 only to calculate metallurgical and thermal proportions. Review for subbituminous and bituminous production rather than "thermal" coal production.

Cell: J96**Comment:** Rick Heede:

Based on 2008 production, in which year Peabody mined 7.05 million tons of metallurgical coal (all in Australia) of 224.3 million tons total coal sales, or 3.14 percent.

Cell: D179**Comment:** Rick Heede:

Peabody AnnRpt 2013, page 31.
Coal Reserves

Coal Reserves We had an estimated 8.3 billion tons of proven and probable coal reserves as of December 31, 2013. An estimated 7.3 billion tons of our attributable proven and probable coal reserves are in the U.S, with the remainder in Australia. Approximately 76% of our Australian proven and probable coal reserves, or 700 million tons, are metallurgical coal with the remainder being thermal coal. Approximately 53% of our reserves, or 4.3 billion tons, are compliance coal and 47% are noncompliance coal (assuming application of the U.S. industry standard definition of compliance coal to all of our reserves). We own approximately 33% of these reserves and lease property containing the remaining 67%. Compliance coal is defined by Phase II of the Clean Air Act as coal having sulfur dioxide content of 1.2 pounds or less per million Btu. Electricity generators are able to use coal that exceeds these specifications by using emissions reduction technology, using emission allowance credits or blending higher sulfur coal with lower sulfur coal.