## **GUIDE TO COAL MINES**

Mines Served by BNSF Railway

The information included in this *Guide to Coal Mines* includes general information about coal and the mine facilities, ranging from coal specifications to loading characteristics. Requests for further information regarding these mines should be addressed to the appropriate producer marketing contact.

Coal Business Unit BNSF Railway <u>Coal.Marketing@BNSF.com</u> August 1, 2018

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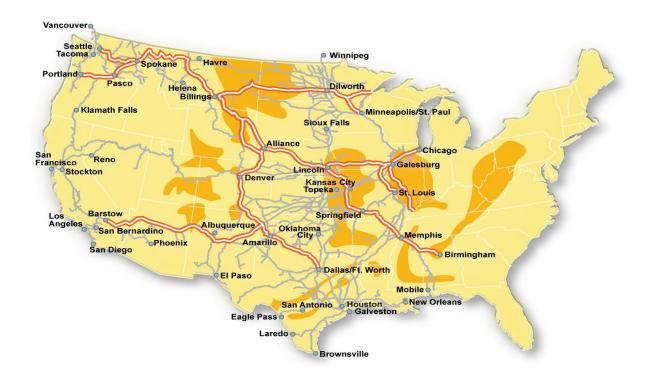
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## **Coal Mine Guide**

The United States has the largest coal reserves in the world. The abundant suppy of coal has made it a reliable and economical fuel source for steam-generated electricity.

Click on the regions below to find more information of mines.



### Powder River Basin

The Powder River Basin (PRB) of Wyoming and Montanta is the largest low sulfur coal source in the nation. Eight of the ten largest mines in the United States are located in the PRB.



Montana		
Type of Mine	Sub-Bituminous - Surface	
Loading Station	Kuehn, Montana (Big Horn County)	
	60 miles southwest of Forsyth, Montana	
Marketing Contact	Westmoreland Coal Sales Company	(303) 922-6463
Warketing Contact	sales@westmoreland.com	(303) 322-0403
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,550
	Sulfur	0.7%
	Ash	9.7%
	Sodium as % of Ash	0.6%
Recoverable Reserves	357 million tons	
Annual Production	201763 Million tons	
	201665 Million tons	
	201576 Million tons	
Storage Capacity	44,000 tons (trough-type storage barn)	
Loading & Weighing	Flood loading with belt scale	
Train Capacity	Capable of loading unit trains of 125 cars	
	Multiple rail sidings on site	

## Absaloka Mine - Westmoreland Coal Co.

#### **Antelope Mine - Cloud Peak Energy**

•	•••	
Wyoming		
Type of Mine	Surface	
Loading Station	Converse Jct, Wyoming (Converse County)	
	70 miles southeast of Gillette, Wyoming	
Marketing Contact	http://cloudpeakenergy.com/operations/243	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,850
	Sulfur	0.25%
	Ash	5.42%
	Sodium as % of Ash	1.52%
Recoverable Reserves	547 million tons	
Annual Production	2017 - 5.88 Million tons	
	2016 - 5.38 Million tons	
	2015 - 6.02 Million tons	
Storage Capacity	27,500 tons (2 silos)	
Train Capacity	Holds 4 unit trains on site	

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## Belle Ayr Mine - Contura Energy

Wyoming		
Type of Mine	Surface	
Loading Station	Belle Ayr Jct, Wyoming (Campbell County)	
Marketing Contact	allen.childress@javelincommodities.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,600
	Sulfur	0.27%
	Ash	4.40%
	Sodium as % of Ash	1.50%
Recoverable Reserves	300 million tons	
Annual Production	2017-15.8 Million tons	
	2016 - 14.9 Million tons	
	2015 - 18.3 Million tons	
Storage Capacity	48,000 tons (4 silos)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion track scale	
	Flood loading backup	
Train Capacity	Holds 4 unit trains on site	

#### Black Thunder Mine - Arch Coal, Inc.

Wyoming

Type of Mine	Surface	
Loading Stations	Black Thunder	
	Thunder Jct, Wyoming (Campbell County)	
	45 miles southeast of Gillette, Wyoming	
	Black Thunder West	
	Thunder Jct. West, Wyoming (Campbell County)	
	41 miles southeast of Gillette, Wyoming	
	Black Thunder East	
	Thunder Jct East, Wyoming (Campbell County)	
	50 miles southeast of Gillette, Wyoming	
Marketing Contact	http://www.archcoal.com/aboutus/blackthunder.aspx	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,800
	Sulfur	29.00%
	Ash	5.20%
	Sodium as % of Ash	1.13%
Recoverable Reserves	1.2 billion tons	
Annual Production	Permitted for 190 million tons/year	
	2017 – 70.5 MM	
	2016 –67.9 Million tons	
	2015 – 100.7 Million tons	
Storage Capacity	Black Thunder	
	125,000 tons (2 silos plus barn storage)	
	Black Thunder West	
	35,000 tons (2 silos)	
	Black Thunder East	
	98,000 tons (7 silos)	
Loading & Weighing	Black Thunder and Black Thunder West	
	Batch weigh bin coupled with weigh-in-motion track scale	
	Black Thunder East	
	Flood layer loading coupled with weigh-in-motion track scale and	
	batch weigh bin top-off system	
Train Capacity	Black Thunder	
	Holds 5 unit trains on site, plus 4 in Arch's Reno Yard	
	Black Thunder West	
	Holds 5 unit trains on site	
	Black Thunder East	
	Holds 5 unit trains on site, plus shares Arch's Reno Yard	

## Buckskin Mine - Kiewit Mining Group

Wyoming		
Type of Mine	Surface	
Loading Station	Buckskin Jct, Wyoming (Campbell County)	
	10 miles northeast of Gillette, Wyoming	
Marketing Contact	http://www.kiewit.com/markets/mining	
Coal Specifications	Proximate Analysis (as received)	
	Btu/lb.	8,400
	Sulfur	0.34%
	Ash	4.80%
	Sodium as % of Ash	1.80%
Recoverable Reserves	250 million tons	
Annual Production	2017 – 14.6million tons	
	2016 –7 million tons	
	2015 – 13.6 million tons	
Storage Capacity	61,500 tons (5 silos)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion track scale	
	Flood loading backup	
Train Capacity	Holds 4 unit trains on site	

#### Caballo Mine - Peabody Energy

Wyoming		
Type of Mine	Surface	
Loading Station	Caballo Jct, Wyoming (Campbell County)	
	20 miles southeast of Gillette, Wyoming	
Marketing Contact	https://www.peabodyenergy.com/Operations/U-S-Mir	ning/Powder-River-Basin-Mining
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,400
	Sulfur	0.36%
	Ash	5.7%
	Sodium as % of Ash	1.5%
Recoverable Reserves	629 Million Tons	
Annual Production	Permitted for 50 million tons/year	
	2017 - 11.1 Million tons	
	2016 - 11.2 Million tons	
	2015 - 14.2 Million Tons	
Storage Capacity	46,000 tons (4 silos)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion t	rack scale and
	Precision top-off system	
Train Capacity	Holds 5 unit trains on site (3 empties, 2 loads)	

#### Coal Creek Mine - Arch Coal, Inc.

Wyoming			
Type of Mine	Surface		
Loading Station	Coal Creek Jct, Wyoming (Campbell County)		
Marketing Contact	http://www.archcoal.com/aboutus/coalcreek.aspx		
Coal Specifications	Proximate Analysis (as received)	Typical	
	Btu/lb.	8,400	
	Sulfur	0.32%	
	Ash	6.12%	
Recoverable Reserves	179.4 million tons		
Annual Production	Permitted for 50 million tons/year		
	2017 – 9 Million tons		
	2016 – 8.2 Million tons		
	2015 – 7.8 Million tons		
Storage Capacity	25,000 tons (2 silos)		
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion t	rack scale	
Train Capacity	Holds 2 unit trains on site		

#### Cordero Rojo Mine - Cloud Peak Energy

Type of Mine	Surface	
Loading Station	North Facility	
U	Rojo Jct, Wyoming (Campbell County)	
	20 miles southeast of Gillette, Wyoming	
	South Facility	
	Cordero Jct, Wyoming (Campbell County)	
	30 miles southeast of Gillette, Wyoming	
Marketing Contact	http://cloudpeakenergy.com/operations/cordero-rojo-mir	<u>ne/</u>
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,425
	Sulfur	0.29%
	Ash	5.17%
	Sodium as % of Ash	1.31%
Recoverable Reserves	320 million tons	
Annual Production	2017 - 16.4 Million tons	
	2016 - 18.3 Million tons	
	2015 - 22.9 Million tons	
Storage Capacity	North Facility	
	28,000 tons (2 silos)	
	South Facility	
	144,000 tons (4 silos plus barn storage)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion tra	ck scale
Train Capacity	North Facility	
	Holds 4 unit trains on site	
	South Facility	
	Holds 3 unit trains on site	

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Montana		
Type of Mine	Surface	
Loading Station	Decker, Montana (Big Horn County)	
	23 miles northeast of Sheridan, Wyoming	
Marketing Contact	j.russell@lhr-inc.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	9,500
	Sulfur	0.37%
	Ash	4.30%
	Sodium as % of Ash	1.00-8.00%
Recoverable Reserves	200 million tons	
Annual Production	2017 - 4.2 Million tons	
	2016 - 3.2 Million tons	
	2015 - 3 Million tons	
Storage Capacity	East: 122,000 tons total (silo and stockpile)	
	West: 87,000 tons total (silo and stockpile)	
Loading & Weighing	Flood loading with belt scale	
Train Capacity	East: Holds 1 unit train on site	
	West: Holds 1 unit train on site plus1 unit train o	on Decker Siding

## Decker Mine – Lighthouse Resources, Inc.

#### Dry Fork Mine - Western Fuels-Wyoming, Inc.

Wyoming		
Type of Mine	Surface - truck/loader operation	
Loading Station	Dry Fork Jct, Wyoming (Campbell County)	
	7 miles northeast of Gillette, Wyoming	
Marketing Contact	http://www.westernfuels.org/	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,050 - 8200
	Sulfur	.2142%
	Ash	3.8-5.1%
	Sodium as % of Ash	1.8%
Recoverable Reserves	294 million tons	
Annual Production	2017 - 6 Million tons	
	2016 - 6.1 Million tons	
	2015 - 6.4 Million tons	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion	track scale
Train Capacity	Holds 1 unit train on site	

Eagle Dutte Mine - Diackjew		
Wyoming		
Type of Mine	Surface	
Loading Station	Eagle Butte Jct, Wyoming (Campbell County)	
	8 miles northeast of Gillette, Wyoming	
Marketing Contact	allen.childress@javelincommodities.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,350
	Sulfur	0.00%
	Ash	4.8%
	Sodium as % of Ash	1.5%
Recoverable Reserves	345 million tons	
Annual Production	2017 - 17.3 Million tons	
	2016 - 19 Million tons	
	2015 - 19.7 Million tons	
Storage Capacity	48,000 tons total (4 silos)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion trace	ck scale
	Flood loading backup	
Train Capacity	Holds 5 unit trains on site	
North Antelope Rochelle M	ine - Peabody Energy	
Wyoming		
Type of Mine	Surface	
	North Antelope Rochelle	
Loading Station	Nacco Jct, Wyoming (Campbell County)	
	60 miles southeast of Gillette, Wyoming	
	NARM North	
	NARM North, Wyoming (Campbell County)	
	50 miles southeast of Gillette, Wyoming	
Marketing Contact	https://www.peabodyenergy.com/Operations/U-S-Mining	g/Powder-River-Basin-Mining
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,800
	Sulfur	0.21%
	Ash	4.6%
	Sodium as % of Ash	1.7%
Recoverable Reserves	2,018 million tons	
Annual Production	2017 - 101.6 Million tons	
	2016 - 92.8 Million tons	
	2015 - 109.3 Million tons	
Storage Capacity	North Antelope Rochelle: 125,000 tons (5 silos an	d 1 barn)
	NARM North: 40,000 tons (barn storage)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion trad	ck scale
Train Capacity	North Antelope Rochelle	
	Holds 11 unit trains on site	
	NARM North	

#### Eagle Butte Mine - Blackjewel

#### Rawhide Mine - Peabody Energy

Wyoming		
Type of Mine	Surface	
Loading Station	Rawhide Jct, Wyoming (Campbell County)	
	10 miles northeast of Gillette, Wyoming	
Marketing Contact	https://www.peabodyenergy.com/Operations/U-S-Mir	ning/Powder-River-Basin-Mining
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	8,300
	Sulfur	0.36%
	Ash	5.4%
	Sodium as % of Ash	1.6%
Recoverable Reserves	313 Million tons	
Annual Production	2017 - 10.4 Million tons	
	2016 - 8.1 Million tons	
	2015 - 15.2 Million tons	
Storage Capacity	71,000 tons (6 silos), plus 10,000 surge silo	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion t	track scale and
	precision top-off system	
Train Capacity	Holds 2 unit trains on site	

#### Signal Peak Mine - Boich Group/Gunvor/First Energy

Montana		
Type of Mine	Underground - longwall	
Loading Station	Peaks, Montana (Musselshell County)	
	35 miles north of Billings, MT	
Marketing Contact	http://globalcoalsales.com/mine-operations/	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	10,300
	Sulfur	0.42%
	Ash	5.70%
Recoverable Reserves	500 million tons	
Annual Production	2017 - 5.9 Million tons	
	2016 – 5.6 Million tons	
	2015 - 6.5 Million tons	
Storage Capacity	800,000 tons	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion t	rack scale
Train Capacity	Holds 2 unit trains on site, plus 1 unit train on W	alter siding

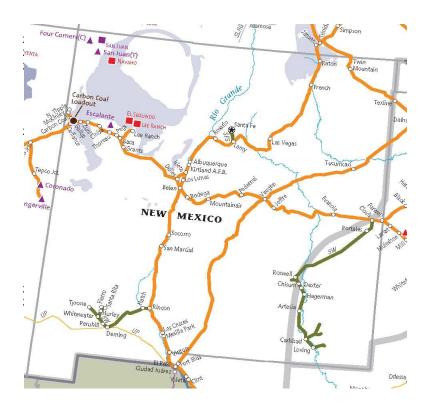
Montana		
Type of Mine	Surface	
Loading Station	Nerco Jct., Montana (Big Horn County)	
	30 miles northeast of Sheridan, Wyoming	
Marketing Contact	http://cloudpeakenergy.com/operations/spring-creek-	mine
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	9,350
	Sulfur	0.3%
	Ash	4.3%
	Sodium	8.5%
Recoverable Reserves	290 million tons	
Annual Production	2017 - 12.7 Million tons	
	2016 - 5.6 Million tons	
	2015 - 6.5 Million tons	
Storage Capacity	30,000 tons (barn storage)	
Loading & Weighing	Batch weigh bin coupled with weigh-in-motion t	rack scale
Train Capacity	Holds 4 unit trains on site	

### Spring Creek Mine - Cloud Peak Energy

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### **NEW MEXICO**

BNSF serves two mines in northwest New Mexico -- El Sugundo and Lee Ranch. The high-quality coal deposits are characterized by high BTU, low-sulfur, low ash, and low moisture content.



#### Lee Ranch Mine - Peabody Energy

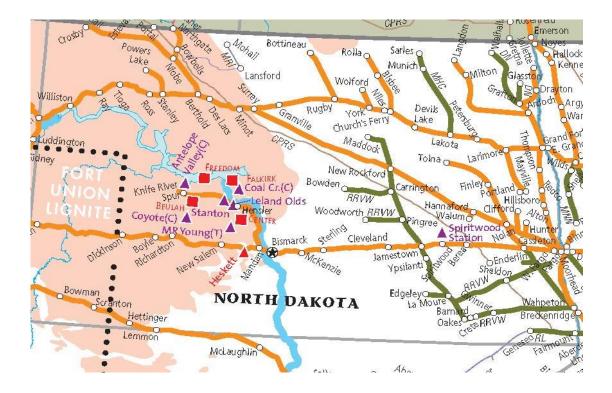
ty)	
https://www.peabodyenergy.com/Operations/U-S-Mining/Western-Mining	
Typical	
9,300	
0.9%	
17.8%	
0.4%	
ing	

#### El Sugundo Mine - Peabody Energy

Type of Mine	Surface	
Loading Station	El Segundo Jct, New Mecico (Cibola County)	
	40 miles north of Grants, New Mexico	
Marketing Contact	https://www.peabodyenergy.com/Operations/U-S-Mi	ning/Western-Mining
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	9,100
	Sulfur	1.03%
	Ash	16.10%
	Sodium as % of Ash	
Annual Production	2017 - 5.88 Million tons	
	2016 - 5.38 Million tons	
	2015 - 6.02 Million tons	
Loading & Weighing	Batch weigh bin	
Train Capacity	Holds 2 unit trains on site	

## **NORTH DAKOTA**

Lignite is available from BNSF-served surface mines in North Dakota. This lignite field is part of the Great Plains coal area. Heat values of the deposits in this area range from 6,500 to 7,000 BTU/lb. The lignite is primarily burned by local power plants, but can be used by any properly designed stokers, coal-fired units and cyclone furnaces.



#### **Beulah Mine - Westmoreland Coal Co.**

Type of Mine	Lignite - Surface	
Loading Station	Beulah Mine, North Dakota (Mercer Cou	unty)
	2 miles south of Beulah, North Dakota	
Marketing Contact	Westmoreland Coal Sales Company	(303) 922-6463
	sales@westmoreland.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	7,000
	Sulfur	0.6%
	Ash	6.5%
	Sodium as % of Ash	6.0%
Recoverable Reserves	43 million tons	
Annual Production	201744 Million tons	
	201688 Million tons	
	2015 - 2.9 Million tons	
Storage Capacity	50,000 tons	
Loading & Weighing	Tipple with chutes to handle 1,600 tons	per
Track Configuration	Capable of loading unit trains	
	Beulah Mine supplies lignite to electric	
Information	generating stations via rail haul. Highes	t
	quality lignite available.	

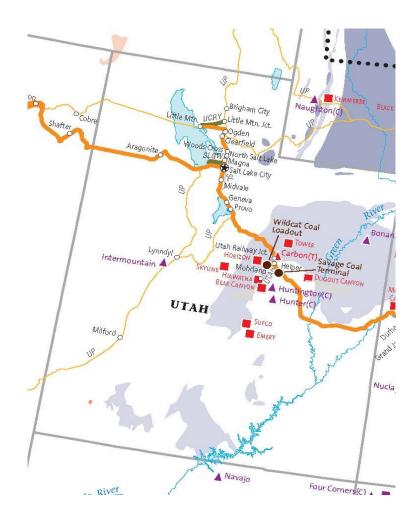
#### Freedom Mine - North American Coal Corp.

Type of Mine	Lignite surface	
Loading Station	Antelope Valley, North Dakota	
	8 miles northwest of Beulah, North Dak	ota
Marketing Contact	http://www.nacoal.com/operations/coteau.ht	<u>tml</u>
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	6,775
	Sulfur	0
	Ash	7.2%
	Sodium as % of Ash	5.5%
Recoverable Reserves	550 million tons	
Annual Production	2017 - 14.7 Million tons	
	2016 - 14.1 Million tons	
	2015 - 14.3 million tons	
Storage Capacity	450,000 tons (two stockpiles)	
Loading & Weighing	Discharge belt to 50-car train	
Track Configuration	Single track holds 60 cars on site	
	Freedom Mine delivers lignite to two	
	facilities via mine mouth conveyor and	
Information	others via railroad	
B 10		

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### UTAH

BNSF Railway has access to Utah coal mines through Utah Railway, a connecting carrier. Mines are accessed by Utah Railway through two loadout facilities, Wildcat and Savage Coal Terminal. Utah Railway interchanges coal trains with BNSF at Provo, Utah (westbound) and Grand Junction, Colorado (eastbound).



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### **Dugout Canyon Mine - Bowie Resources**

Type of Mine	Underground - continuous miner operation	
Loading Station	Savage Energy Coal Terminal, Utah (Carbon Co	ounty)
	6 miles southeast of Price, Utah	
Marketing Contact	JHood@bowieresources.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	11,800
	Sulfur	1.0%
	Ash	11.5%
	Sodium as % of Ash	0.7%
Recoverable Reserves	9.1 million tons	
Annual Production	201763 Million tons	
	201665 Million tons	
	201576 Million tons	
Loading & Weighing	Flood loading with belt scale	
Track Configuration	Loop track holds one unit train	

#### **SUFCO Mine - Bowie Resources**

Type of Mine	Underground longwall operation	
Loading Station	Savage Coal Terminal, Utah (Carbon County)	
	6 miles southeast of Price, Utah	
Marketing Contact	JHood@bowieresources.com	
Coal Specifications	Proximate Analysis (as received)	Typical
	Btu/lb.	11,000
	Sulfur	45.0%
	Ash	11.0%
	Sodium as % of Ash	2.2%
Recoverable Reserves	83.4 million tons	
Annual Production	2017 - 5.88 Million tons	
	2016 - 5.38 Million tons	
	2015 - 6.02 Million tons	
Storage Capacity	500,000 tons (stockpile), Approx 4,000 tons per hour	
Loading & Weighing	Flood loading with weigh in motion scale	
Track Configuration	Loop track holds one unit train	_

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