LISA D. NORDSTROM
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June 19, 2015

Public Utility Commission of Oregon
Filing Center
3930 Fairview Industrial Drive SE
P.O. Box 1088
Salem, Oregon 97308-1088

RE: UP ____ – In the Matter the Application of Idaho Power Company for an Order Authorizing Approval of the Purchase from PacifiCorp of a Longwall Mining System

Attention Filing Center:

Attached for filing is an electronic copy of an Application of Idaho Power Company for an Order Authorizing Approval of the Purchase from PacifiCorp of a Longwall Mining System.

Please contact this office with any questions.

Very truly yours,

Lisa D. Nordstrom

Lisa D. Nordstrom

LDN/kkt

Enclosures

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

UP ____

In the Matter of the Application of Idaho Power Company for an Order Authorizing Approval of the Purchase from PacifiCorp of a Longwall Mining System.	**APPLICATION**

Pursuant to ORS § 757.485 and OAR 860-027-0025, Idaho Power Company ("Idaho Power" or "Company") seeks approval from the Public Utility Commission of Oregon ("Commission") for an order authorizing the purchase of the Joy Global Inc. ("Joy") longwall mining system and support equipment from PacifiCorp. The Company respectfully requests expedited treatment of this Application in order to maximize the benefits of the use of the Joy longwall at Bridger Coal Company ("BCC") and desires approval of the purchase by August 3, 2015.

I. INTRODUCTION

BCC, a joint venture between Idaho Energy Resources Co. ("IERCo") and Pacific Minerals, Inc. ("Pacific Minerals"), mines and supplies coal to the Jim Bridger generating plant ("Jim Bridger plant"), located in Sweetwater County, Wyoming. Idaho Power is the parent of IERCo and PacifiCorp is the parent of Pacific Minerals. The Jim Bridger plant is owned by Idaho Power (one-third) and PacifiCorp (two-thirds). BCC is located in southwestern Wyoming and consists of two principal operating units: a surface operation and an underground operation. The coal from both operations is delivered to the Jim Bridger plant by an overland conveyor system.

Surface mining operations began in 1974 and began underground operations in 2004 to reduce the cost of fuel supplied to the Jim Bridger plant. The underground operation at BCC mines a single coal seam through the use of a longwall retreat mining

system as its main method of coal recovery. BCC currently operates DBT America, Inc. longwall equipment ("DBT longwall"). As coal is mined from the seam by the longwall, the roof and overlying rock are allowed to collapse into the void behind the longwall while the shields provide a safe working space for the miners. The longwall technique is the most efficient method of underground coal mining and yields the highest recovery of the in-place resource. Approximately 85 percent of coal produced from the underground mine is excavated by the DBT longwall.

A critical factor in the design of underground mining systems is the anticipated thickness of the coal seam. During pre-development of BCC, the estimated coal thickness ranged between ten and fourteen feet. The DBT longwall specified a mining height that resulted in a minimum cutting thickness of nine feet. As the mine developed, coal seam thickness varied more than forecasted, with some areas thinning to only seven feet. When the seam thickness is less than the DBT longwall's minimum mining height, the DBT longwall cut includes the rock overlying the coal, significantly increasing the ash content of the coal. The levels are above the power plant quality specification to maintain efficiency and maximum boiler combustion. To remedy this, BCC blends the underground product with surface operation coal that has lower ash content or simply segregates and stockpiles the coal for future delivery. Both methods increase the cost to produce coal; blending results in consumption of the economic reserves of the surface mine at an accelerated rate and stockpiling requires expensive repeated handling of the product. The frequency of thickness-related elevated ash periods have increased since 2013.

II. JOY LONGWALL

At the Deer Creek mine, located in Emery County, Utah, coal is extracted using a longwall system purchased from Joy and placed into service in August 1998. The mining height of the Joy longwall results in a cutting thickness of seven to ten feet. PacifiCorp has announced, and has received approval of, the closure of the Deer Creek mine in

2015, making available for use at BCC a longwall mining system with a cutting height that better matches the coal seam thickness at BCC. The Joy longwall meets BCC's operating requirements with the ability to operate more efficiently, bypassing waste material and reducing ash content of the coal. Thus, BCC has entered into a Sale and Purchase Agreement ("Agreement") with PacifiCorp, included as Attachment A to this Application, for the purchase and delivery of the Joy longwall mining system to the underground BCC mine.

If the transaction is approved, BCC will use the Joy longwall in the underground areas that have the higher potential of lower coal seam height. The DBT longwall will be retained at BCC to be used in other districts of the mine. If the DBT longwall were to continue operations in the western district, a refurbishment of the mining system with a projected capital cost of $22 million would be required prior to reaching the end of the eastern district of the underground mine. To maximize life cycles of the longwall equipment, BCC plans to use the Joy longwall beginning in August 2015 to complete the remaining western district of the mine, the underground areas experiencing the lowest coal seam height. The Joy longwall will continue operations through the first eastern district, with an anticipated completion in December 2019. At this time, the DBT longwall is expected to complete the remaining five eastern district panels of the mine, panels that better match the operating parameters of the DBT longwall. Less coal will be produced by the Joy longwall; however, due to its lower ash content it will have the same total BTUs delivered to the Jim Bridger plant, resulting in a lower cost per MMBTU as compared to the DBT longwall for this area of the underground mine. Alternatives including increasing third-party coal or increasing the mine coal stockpile size proved more expensive. The installation of the Joy longwall at BCC with its ability to cut a lower height coal face to minimize ash content is critical to the mine's intensive effort to reduce ash.

III. ASSETS SUBJECT TO PURCHASE

Under the terms of the Agreement, BCC agrees to purchase the Joy longwall mining system and support equipment owned by PacifiCorp and described in Exhibit A to the Agreement. In order to maximize benefits at BCC, the Joy longwall's installation, if approved, is planned for the third quarter of 2015. The total purchase price of the Joy longwall is $14.1 million, which is the sum of the market value including sales tax, as determined using the average of three independent appraisals, included as Attachment B to this Application. Also under the terms of the Agreement, BCC will reimburse PacifiCorp for the cost of refurbishment of the Joy longwall to the operating conditions of BCC as well as the transportation costs from the Deer Creek mine in Utah to BCC in Wyoming. The refurbishment and transportation costs are estimated at $4.8 million, for a total cost of $18.9 million. IERCo is responsible for one-third of the cost, or $6.3 million.

Additionally, BCC will purchase twelve pieces of underground mine support equipment, including material haulage equipment, feeder breakers, and high voltage electrical cable ("support equipment") no longer needed at the Deer Creek mine. The market value of the support equipment is approximately $1.3 million, including sales tax and transportation costs. Including the support equipment, IERCo's cost responsibility for the total purchase is estimated to be approximately $6.7 million.

Separate from this Agreement, BCC has agreed to purchase a generator from the Cottonwood Mine, also an affiliate of Pacific Minerals. The generator was appraised by two independent appraisers and a purchase price of $21,750 was agreed upon, using the average of the two independent appraisals. IERCo's share of the generator cost is $7,250. The generator is a critical back-up power source for the underground control center at BCC and will meet the regulatory requirements of the Mine Safety and Health Administration for operators who employ miners underground. Idaho Power also requests authorization of the generator purchase by August 3, 2015, for use at BCC.

IV. REASON FOR THE PROPERTY TRANSACTION

Pursuant to ORS § 757.485(1), no public utility shall, directly or indirectly, purchase, acquire, or become the owner of any of the stocks or bonds or property utilized for utility purposes and having a value in excess of $10,000 of any other public utility unless authorized to do so by the Commission. The purchase of the Joy longwall and support equipment by BCC will not adversely affect IERCo, Idaho Power, or its customers. In fact, the Company expects the purchase and utilization of the Joy longwall at BCC to result in lower overall cost of production at the Jim Bridger plant over time; the costs per MMBtu for fuel produced by the Joy longwall is projected to be less than the costs per MMBtu for fuel produced by the DBT longwall currently in use at BCC. These cost reduction benefits will flow to Idaho Power's customers in the form of reduced coal fuel expenses as compared to what would have otherwise existed.

It is also important to note that customer rates will not reflect depreciation expenses associated with the DBT longwall. Under the Commission-approved ratemaking treatment of IERCo, the retaining of the DBT longwall will not adversely impact customer rates. Depreciation expense is a part of the overall expenses of BCC's coal operations, initially appearing in fuel inventory costs at Idaho Power as coal sales from BCC to Idaho Power, and is ultimately reflected in Federal Energy Regulatory Commission Account 501 – Fuel Expense Coal when the coal is burned at the plant. Longwall equipment is depreciated on cycles; a cycle consists of the retraction, advancement, and redeployment of the machine's shield canopy. The longwall shields are designed for a specific number of cycles over their life. The depreciation expense for the month is based on the total cycles completed. When the DBT longwall is retained at BCC to be used in other districts of the mine, depreciation will cease and therefore will not be reflected in fuel inventory costs. Instead, as the Joy longwall begins operation, depreciation will commence and become part of the expenses that will ultimately be included in total fuel expenses. However, if

there is any lag in the operation of the longwall systems, deviations will be tracked through the Company's annual power cost adjustment mechanisms. Customer rates will only include costs associated with longwall mining systems in operation to provide services to customers. The purchase of the Joy longwall mining system is expected to reduce the overall cost of production at the Jim Bridger plant and will provide a more reliable coal fuel supply resulting in lower overall costs to Idaho Power and its customers.

V. COMPLIANCE WITH OAR 860-027-0025(1) FILING REQUIREMENTS

Pursuant to the requirements of OAR 860-027-0025(1), Idaho Power represents as follows:

A. The Exact Name and Address of the Utility's Principal Business Office.

Idaho Power Company, 1221 West Idaho Street (83702), P.O. Box 70, Boise, Idaho 83707-0070.

B. The State in Which Incorporated, the Date of Incorporation, and the Other States in Which Authorized to Transact Utility Operations.

Idaho Power was incorporated under the laws of the state of Maine on May 6, 1915, and migrated its state of incorporation from the state of Maine to the state of Idaho effective June 30, 1989. It is qualified as a foreign corporation to do business in the states of Oregon, Nevada, Montana, and Wyoming in connection with its utility operations. Idaho Power is authorized to provide retail electric service in Idaho and Oregon.

C. Name and Address of the Person on Behalf of Applicant Authorized to Receive Notices and Communications in Respect to the Applications.

The name and address of the persons authorized on behalf of Idaho Power to receive notices and communications in respect to this Application are:

Lisa D. Nordstrom, Lead Counsel Idaho Power Company 1221 West Idaho Street (83702) P.O. Box 70 Boise, Idaho 83707 Telephone: (208) 388-5825 Facsimile: (208) 388-6936 lnordstrom@idahpower.com	Regulatory Dockets Idaho Power Company 1221 West Idaho Street (83702) P.O. Box 70 Boise, Idaho 83707 dockets@idahopower.com

D. The Names, Titles, and Addresses of the Principal Officers.

As of May 31, 2015, the names, titles, and addresses of the principal officers of Idaho Power are as follows:

Name	Title
Darrel T. Anderson	President and Chief Executive Officer
Daniel B. Minor	Executive Vice President and Chief Operating Officer
Rex Blackburn	Sr. Vice President and General Counsel
Lisa A. Grow	Sr. Vice President of Power Supply
Steven R. Keen	Sr. Vice President, Chief Financial Officer and Treasurer
Warren Kline	Sr. Vice President of Customer Operations
Lonnie G. Krawl	Vice President of Human Resources, Administrative Services and Chief Information Officer
Jeffrey L. Malmen	Vice President of Public Affairs
N. Vern Porter	Sr. Vice President of Customer Operations
Gregory W. Said	Vice President of Regulatory Affairs
Lori D. Smith	Vice President and Chief Risk Officer
Patrick A. Harrington	Corporate Secretary
Ken Peterson	Vice President, Controller and Chief Accounting Officer

The address of all of the above officers is:

1221 West Idaho Street (83702)
P.O. Box 70
Boise, Idaho 83707-0070

E. A Description of the General Character of the Business Done and to Be Done, and a Designation of the Territories Served, by Counties and States.

Idaho Power is an electric public utility engaged principally in the generation, purchase, transmission, distribution, and sale of electric energy in a 24,000 square mile area over southern Idaho, and in the counties of Baker, Harney, and Malheur in eastern Oregon. A map showing Idaho Power's service territory is on file with the Commission as Exhibit H to Idaho Power's application in Docket No. UF 4063.

F. A Statement, as of the Date of the Balance Sheet Submitted With the Application, Showing For Each Class and Series of Capital Stock: Brief Description; the Amount Authorized (Face Value and Number of Shares); the Amount Outstanding (Exclusive of Any Amount Held in the Treasury); Amount Held as Reacquired Securities; Amount Pledged; Amount Owned By Affiliated Interests; and Amount Held in Any Fund.

Idaho Power requests the Commission waive the requirements of OAR 860-027-0025(1)(f) because this transaction does not involve the issuance of securities. A grant of this waiver will not impede the Commission's analysis of this Application.

G. A Statement, as of the Date of the Balance Sheet Submitted With the Application, Showing for Each Class and Series of Long-Term Debt and Notes: Brief Description (Amount, Interest Rate and Maturity); Amount Authorized; Amount Outstanding (Exclusive of Any Amount Held in the Treasury); Amount Held as Reacquired Securities; Amount Pledged; Amount Held By Affiliated Interests; and Amount in Sinking and Other Funds.

Idaho Power requests the Commission waive the requirements of OAR 860-027-0025(1)(g) because this transaction does not involve the issuance of securities. A grant of this waiver will not impede the Commission's analysis of this Application.

H. Whether the Application Is for Disposition of Facilities by Sale, Lease, or Otherwise, a Merger or Consolidation of Facilities, or for Mortgaging or Encumbering Its Property, or for the Acquisition of Stock, Bonds, or Property of Another Utility, Also a Description of the Consideration, If Any, and the Method of Arriving at the Amount Thereof.

This Application requests approval of the purchase of the Joy longwall mining system and support equipment from PacifiCorp. In order to maximize benefits at BCC, the Joy longwall's installation, if approved, is planned for the fall of 2015. The total purchase price of the Joy longwall is $14.1 million, which is the sum of the market value including sales tax, as determined using the average of three independent appraisals. Also under the terms of the Agreement, BCC will reimburse PacifiCorp for the cost of refurbishment of the Joy longwall to the operating conditions of BCC, as well as the transportation costs from the Deer Creek mine in Utah to BCC in Wyoming. The refurbishment and transportation costs are estimated at $4.8 million, for a total cost of $18.9 million. IERCo is responsible for one-third of the cost, or $6.3 million.

Additionally, BCC will purchase twelve pieces of underground mine support equipment, including material haulage equipment, feeder breakers, and high voltage electrical cable ("support equipment") no longer needed at the Deer Creek mine. The market value of the support equipment is approximately $1.3 million, including sales tax and transportation costs. Including the support equipment, IERCo's cost responsibility for the total purchase is estimated to be approximately $6.7 million.

I. A Statement and General Description of Facilities to Be Disposed of, Consolidated, Merged, or Acquired from Another Utility, Giving a Description of Their Present Use and of Their Proposed Use After Disposition, Consolidation, Merger, or Acquisition. State Whether the Proposed Disposition of the Facilities or Plan for Consolidation, Merger, or Acquisition Includes All the Operating Facilities of the Parties to the Transaction.

The subject property consists of the Joy longwall and support equipment as set forth in subsection (h) above.

J. A Statement by Primary Account of the Cost of the Facilities and Applicable Depreciation Reserve Involved in the Sale, Lease, or Other Disposition, Merger or Consolidation, or Acquisition of Property of Another Utility. If Original Cost Is Not Known, an Estimate of Original Cost Based, to the Extent Possible, Upon Records or Data of the Applicant or Its Predecessors Must Be Furnished, a Full Explanation of the Manner in Which Such Estimate Has Been Made, and a Statement Indicating Where All Existing Data and Records May Be Found.

Please refer to Exhibit J, which demonstrates the cost of the facilities by primary account.

K. A Statement as to Whether or Not Any Application With Respect to the Transaction or Any Part Thereof, Is Required to Be Filed With Any Federal or Other State Regulatory Body.

Idaho Power is not required to file an application for approval from any other federal or state regulatory body with respect to the transaction.

L. The Facts Relied Upon by Applicants to Show that the Proposed Sale, Lease, Assignment, or Consolidation of Facilities, Mortgage or Encumbrance of Property, or Acquisition of Stock, Bonds, or Property of Another Utility Will Be Consistent With the Public Interest.

The purchase of the Joy longwall and support equipment by BCC will not adversely affect IERCo, Idaho Power, or its customers. The Company expects the purchase and utilization of the Joy longwall at BCC to result in lower overall cost of production at the Jim Bridger plant over time; the costs per MMBtu for fuel produced by the Joy longwall is projected to be less than the costs per MMBtu for fuel produced by the DBT longwall currently in use at BCC. These cost reduction benefits will flow to Idaho Power's customers in the form of reduced coal fuel expenses as compared to what would have otherwise existed.

However, if there is any lag in the operation of the longwall systems, deviations will be tracked through the Company's power cost adjustment mechanisms. Customer rates will only include costs associated with longwall mining systems in operation to provide services to customers. The purchase of the Joy longwall mining system is expected to

reduce the overall cost of production at the Jim Bridger plant and will provide a more reliable coal fuel supply resulting in lower overall costs to Idaho Power and its customers.

M. The Reasons, in Detail, Relied Upon by Each Applicant, or Party to the Application, for Entering into the Proposed Sale, Lease, Assignment, Merger, or Consolidation of Facilities, Mortgage or Encumbrance of Property, Acquisition of Stock, Bonds, or Property of Another Utility, and the Benefits, If Any, to Be Derived by the Customers of the Applicants and the Public.

See Sections I and II and subsections (h) and (I) above.

N. The Amount of Stock, Bonds, or Other Securities, Now Owned, Held or Controlled by Applicant, of the Utility from Which Stock or Bonds Are Proposed to be Acquired.

Not applicable.

O. A Brief Statement of Franchises Held, Showing Date of Expiration If Not Perpetual, or, in Case of Transfer/Sale, that Transferee Has the Necessary Franchises.

Not applicable.

VI. COMPLIANCE WITH OAR 860-027-0025(2) FILING REQUIREMENTS FOR IDAHO POWER COMPANY

The following exhibits are submitted and by reference made a part of this Application:

A. Exhibit A. Articles of Incorporation.

A copy of Idaho Power's Restated Articles of Incorporation, as amended on May 17, 2012, has heretofore been filed with the Commission in Docket UF 4278, reference to which is hereby made.

B. Exhibit B. Bylaws.

A copy of Idaho Power's Bylaws, as amended, has heretofore been filed with the Commission in Docket UF 4214, reference to which is hereby made.

C. Exhibit C. Resolution of Directors Authorizing Transaction.

Attached as Exhibit C is a certified copy of the resolutions of IERCo's Board of Directors, dated June 4, 2015, authorizing the Company to enter into the Agreement with PacifiCorp for the purchase of the Joy longwall and support equipment.

D. Exhibit D. Mortgages, Trust, Deeds, or Indentures Securing Obligation of Each Party.

None.

E. Exhibit E. Balance Sheet Showing Booked Amounts, Adjustments to Record the Proposed Transaction and Pro Forma, With Supporting Fixed Capital or Plant Schedules in Conformity With the Forms in the Annual Report.

The purchase of the Joy longwall and support equipment from PacifiCorp herein will not materially affect Idaho Power's balance sheet. Idaho Power respectfully requests that the requirement to provide pro forma information be waived because the subject transaction is not expected to materially affect Idaho Power's financial statements.

F. Exhibit F. Known Contingent Liabilities.

Idaho Power respectfully requests a waiver of this requirement because there are no known contingent liabilities associated with this transaction.

G. Exhibit G. Comparative Income Statements Showing Recorded Results of Operations, Adjustments to Record the Proposed Transaction and Pro Forma, in Conformity With the Form in the Annual Report.

The purchase of the Joy longwall and support equipment from PacifiCorp will not materially affect Idaho Power's income statements. For the reasons set forth above, Idaho Power respectfully requests a waiver of these requirements.

H. Exhibit H. Analysis of Surplus for the Period Covered by Income Statements Referred to in G.

The purchase of the Joy longwall and support equipment from PacifiCorp does not materially affect Idaho Power's income statements and thus respectfully requests a waiver from this requirement.

I. Exhibit I. Copy of Contract for Transaction and Other Written Instruments.

Included with this Application as Attachment 1 is a copy of the Agreement between Idaho Power and PacifiCorp.

J. Exhibit J. Copy of Each Proposed Journal Entry to Be Used to Record the Transaction.

Please refer to Exhibit J attached.

K. Exhibit K. Copy of Each Supporting Schedule Showing the Benefits, If Any, Which Each Applicant Relies Upon to Support the Facts Required By (1)(L) of This Rule and Reasons as Required by (1)(M).

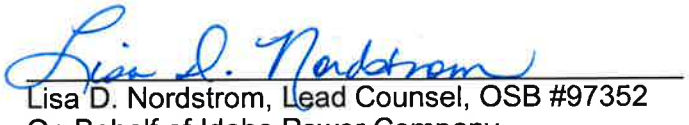
Idaho Power relies upon this Application and the attached documentation to provide support for OAR 860-027-0025(1)(l) and (1)(m).

VII. PRAYER FOR RELIEF

Idaho Power respectfully request a Commission order approving the purchase of the Joy longwall mining system and support equipment from PacifiCorp and is consistent with the public interest. The Company respectfully requests expedited treatment of this Application in order to maximize the benefits of the use of the Joy longwall at BCC and desires approval of the purchase by August 3, 2015.

Dated this 19th day of June, 2015.

Respectfully Submitted,



Lisa D. Nordstrom, Lead Counsel, OSB #97352
On Behalf of Idaho Power Company
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P.O. Box 70
Boise, Idaho 83707
Telephone: (208) 388-5825
Facsimile: (208) 388-6936
E-Mail: lnordstrom@idahopower.com

Attachment 1

SALE AND PURCHASE AGREEMENT

THIS SALE AND PURCHASE AGREEMENT (this "Agreement"), is made as of June 4, 2015, by and between PACIFICORP, an Oregon corporation, as seller ("Seller"), having a place of business at 825 NE Multnomah, Portland, Oregon, 97232 on the one hand, and Bridger Coal Company ("Buyer"), a joint venture of Pacific Minerals, Inc., a Wyoming corporation and wholly owned subsidiary of Seller, and Idaho Energy Resources Co., a Wyoming corporation, as buyer, having a place of business at 1088 Nine Mile Road, Point of Rocks, Wyoming, 82942 on the other hand.

1. Purchase and Sale. Subject to the terms of this Agreement, Seller agrees to sell, transfer and convey to Buyer, and Buyer agrees to purchase and receive, all and not less than all of Seller's right, title and interest in and to each and every one of the items of property (collectively, the "Equipment") described on Exhibit "A" attached hereto. In consideration, Buyer agrees to pay Seller the "Purchase Price" of the Equipment as set forth and adjusted as provided in Exhibit A to this Agreement, on or before the second business day following the later of the effectiveness of this Section or Seller's notice to Buyer of the final Purchase Price. The "Transportation" cost set forth therein is included in the Purchase Price as an estimate and Seller will increase or reduce the Purchase Price for the final, actual costs of transportation to Buyer's Premises. The sale is not effective and consummated until Seller is in receipt of the Purchase Price. Buyer is responsible for payment of all applicable sales tax on this purchase and sale. Seller's obligation to convey the Equipment is expressly conditioned on Seller obtaining all required regulatory approvals, and Buyer's obligation to purchase the Equipment is likewise expressly conditioned on Buyer obtaining all required regulatory approvals.

2. Delivery. Seller agrees to cause the Equipment to be delivered to Buyer's premises at Bridger Coal Company, Underground Mine, 1088 Nine Mile Rd., Point of Rocks, Wyoming ("Buyer's Premises"). Seller will maintain insurance covering the transportation and delivery of the Equipment to Buyer's Premises as evidenced in the Certificate of Liability Insurance attached hereto as Exhibit C, and shall cause Buyer to be a loss payee thereunder.

3. Storage License. In consideration of the sum of $1.00 paid in hand by Seller, Buyer grants to Seller a license to store all Equipment at reasonable locations on Buyer's Premises, free and clear of any liens or claims of Buyer, pending receipt of regulatory approvals by Seller and Buyer for the purchase and sale. In the event regulatory approvals are not received by Seller or Buyer, Buyer grants to Seller a license to store all Equipment on Buyer's premises until the Equipment is otherwise disposed or relocated, in consideration of payment by Seller to Buyer of the sum of $1.00 per month.

4. Title Documentation. Upon receipt of payment in full of the Purchase Price, Seller will execute and deliver to Buyer the "Bill of Sale" in the form of Exhibit "B" hereto. Upon execution of the Bill of Sale by Seller, all risk of loss or damage to the Equipment shall pass to Buyer.

5. **DISCLAIMER OF WARRANTIES. BUYER HEREBY ACKNOWLEDGES AND AGREES THAT THE EQUIPMENT IS SOLD "AS IS" AND "WHERE IS" WITH NO**

WARRANTIES OR REPRESENTATIONS BY SELLER WHATSOEVER, WHETHER EXPRESS OR IMPLIED, AS TO ANY MATTER RELATING TO THE EQUIPMENT, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WARRANTIES AS TO WHETHER THE EQUIPMENT WILL BE IN THE STATE IN WHICH IT IS NOW WHEN IT ARRIVES ON BUYER'S PREMISES, AND BUYER HEREBY WAIVES THE RIGHT TO ASSERT ANY AND ALL SUCH WARRANTIES AGAINST SELLER, SUBJECT ONLY TO THE WARRANTY BY SELLER THAT SELLER HAS GOOD, VALID AND MARKETABLE TITLE TO ALL OF THE PURCHASED ASSETS, AND WILL EFFECTIVELY CONVEY THE EQUIPMENT TO BUYER FREE AND CLEAR OF ANY LIEN, CLAIM OR ENCUMBRANCE OF ANY PARTY CLAIMING AN INTEREST THROUGH SELLER.

6. General. This Agreement is governed by the laws of the State of Wyoming. This Agreement constitutes the entire understanding and agreement between Buyer and Seller in connection with its subject matter and all prior understandings and agreements, whether oral or written, are merged into and superseded hereby. This Agreement may be amended only by a written instrument executed by both Buyer and Seller. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE, OR TO REQUEST THE CONSOLIDATION OF, ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

7. Liabilities Not Assumed. Buyer does not assume, and shall have no responsibility for, any liability of Seller relating to the Equipment which has arisen, been accrued by Seller, or incurred by Seller or is otherwise based on events taking place, prior to the removal from Joywall of the Equipment for Transportation of the Equipment to Buyer's Premises.

8. Survival. All representations, warranties, covenants and obligations under this Agreement will survive Seller's conveyance of the Equipment to Buyer under the Bill of Sale.

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this Agreement as of the date first set forth above.

BRIDGER COAL COMPANY
a Wyoming joint venture

By _____
Name Steve Larsen
Title Vice President

PACIFICORP
an Oregon corporation

By _____
Name Steve Larsen
Title Vice President

Acknowledged:

Pacific Minerals, Inc.
a Wyoming corporation

By
Name Steve Larsen
Title Vice President

Idaho Energy Resources Co.
a Wyoming corporation

By
Name Darrel Anderson
Title President

EXHIBIT "A" TO
PURCHASE AGREEMENT

Equipment Description and component pricing and adjustment:

Longwall Equipment:

Component	Serial Number	EW Asset #	Cap. date	Description	Quantity	Price
Shields		21-226	12/6/2010, 4/18/2011	Joy Shields (two legged, 1,170 ton capacity, reconstructed)	130 Each	$ 8,120,000.00
Shearer	LWS613D	22-223	12/6/2010	Joy 7 LS with dual 72" diameter cutting drums and lump breaker (reconstructed)	1 Each	620,000.00
AFC		22-224	12/6/2010	Joy AFC - #1 (2 x 600 hp x 940 millimeters - reconstructed)	116 Each	530,866.67
		22-225	4/18/2011	Joy AFC - #2 (2 x 600 hp x 940 millimeters - reconstructed)	116 Each	634,200.00
Drives	HD1109	22-214	4/18/2011	Joy Headgate Drive (2 x 250 hp x 1,154 millimeter)	1 Each	226,166.67
	TD1109	22-215	4/18/2011	Joy Tailgate Drive	1 Each	124,400.00
		22-185		Joy Headgate Drive	1 Each	251,000.00
		22-186		Joy Tailgate Drive	1 Each	114,666.67
Stage Loader	SL1109	22-216	4/18/2011	Joy Stage Loader	1 Each	415,666.67
	SL10R3	22-210		Joy Stage Loader	1 Each	279,000.00
Crusher	CR1109	22-217	4/18/2011	Joy Crusher	1 Each	219,666.67
	CR10R3	22-209		Joy Crusher	1 Each	141,333.33
Emulsion		22-211	3/30/2006	Emulsion Pump and Control System (Hauhinco)	1 Each	51,666.67
	97201	22-222	4/18/2011	Emulsion System Assembly (controller/tan/skid - Hauhinco)	1 Lot	64,333.33
	70	22-219	4/18/2011	Emulsion System Pump - #1 (Hauhinco)	1 Each	34,000.00
	71	22-220	4/18/2011	Emulsion System Pump - #2 (Hauhinco)	1 Each	32,333.33
	72	22-221	4/18/2011	Emulsion System Pump - #3 (Hauhinco)	1 Each	32,333.33
Monorail		22-160	12/31/1993	Monorail Cable Handling Device (Westfalia)	1 Each	31,333.33
		22-227	1/30/2012	Monorail System - #1	1 System	102,333.33
		22-228	6/26/2012	Monorail System - #2 (Scharf)	1 System	102,333.33
				Monorail Trailers	5 EA	20,833.33
Scrubber	4145	19-039	4/5/2002	Scrubber System (Speadrup)	1 System	16,333.33
	4146	19-040	4/5/2002	Scrubber System (Speadrup)	1 System	16,333.33
Communication		22-000	12/6/2010	Communication System (reconstructed - Joy Global)	1 System	19,666.67
Tailpiece	BT1109	08-735	4/18/2011	Crawler-Mounted Tailpiece (Joy - BT-1109)	1 Each	120,666.67
	64-223	08-709	12/31/1997	Crawler-Mounted Tailpiece (Long Airdo#LUA 00565)	1 Each	71,000.00
Electrical	P0331A	06-584	4/18/2011	Electrical Power Center #1 (reconstructed - Intermountain Electronics)	1 Each	169,333.33
	P0346A	06-585	4/18/2011	Electrical Power Center #2 (reconstructed - Intermountain Electronics)	1 Each	169,333.33
	P0331B	22-226	4/18/2011	Electrical Master Control (RS205)	1 Lot	52,166.67
		22-999	4/18/2011	Electrical System	1 System	56,333.33
	P0346B	22-218	12/6/2010	Electrical Master Control (RS205)	1 Lot	41,666.67
				Electrical Master Control (Reconstructed)	1 Lot	28,333.33
Chain Containers		22-102	12/31/1987	Chain Containers	1 Each	2,166.67
		22-103	12/31/1987	Chain Containers	1 Each	833.33
		22-104	12/31/1987	Chain Containers	1 Each	833.33
		22-105	12/31/1987	Chain Containers	1 Each	833.33
		22-106	12/31/1987	Chain Containers	1 Each	833.33
		22-107	12/31/1987	Chain Containers	1 Each	833.33
		22-108	12/31/1987	Chain Containers	1 Each	833.33
		22-109	12/31/1987	Chain Containers	1 Each	833.33
		22-995	12/31/1989	Chain Containers (Dale Mining Co.)	1 Each	833.33
Other			12/31/1998	Support Transport Trailer	1 Each	6,833.33
			12/31/1998	Support Transport Trailer	1 Each	3,833.33
	906001	23-108	12/31/1990	Shield Retriever (Petitto04641)	1 Each	161,666.67
	15228	22-203	12/31/201	Shield Retriever Electric (Petitto-1150 R)	1 Each	170,833.33
	003-83572	14-074	12/31/1991	Skid-Mounted Rotary Air Compressor (Sullair-580CFM-7734)	1 Each	500.00
		22-195		Move Pump (480 volt)	1 Each	41,666.67
Inventory Parts						40,461.33
Transport Trailers						200,000.00
				Total (excluding the leased shearer)		$ 13,344,161.33
				Sales Tax		$ 800,649.68
				Total		$ 14,144,811.01

Miscellaneous Equipment:

Equip No.	Asset Description	Make	Model	Serial No.	In-service Date	Price	Sales Tax	Trans.	Total
23-122	Shield Transporter (30X)	Wagner	3412	81Z17982	12/31/1991	$ 125,000.00	$ 7,500.00	$ 2,000.00	$ 134,500.00
23-144	Diesel Powered Tow Vehicle	Eimco	980L	980-907	12/31/1997	75,000.00	4,500.00	2,000.00	81,500.00
23-164	Mobile Rock Duster	Eimco	975	975-0732	2/23/2006	67,500.00	4,050.00	2,000.00	73,550.00
23-170	UG Road Grader	Getman	RDG-1504C	6926	7/31/2007	200,000.00	12,000.00	2,000.00	214,000.00
23-177	Diesel Powered Tow Vehicle	Eimco	980L	980-0881	12/29/2009	102,500.00	6,150.00	2,000.00	110,650.00
03-049	Feeder Breaker	Long Airdox	6MFBM-48A\27208	54-2087	12/31/1996	55,000.00	3,300.00	3,250.00	61,550.00
03-050	Feeder Breaker	Long Airdox	6MFBM-48A\27208	54-2091	12/31/1997	54,333.33	3,260.00	3,250.00	60,843.33
05-141	Battery Powered Section Scoop	Fairchild	n/a	T339-620	8/11/2011	166,000.00	9,960.00	11,458.00	187,418.00
05-142	Battery Powered Section Scoop	Fairchild	n/a	T339-621	8/11/2011	183,333.33	11,000.00	11,458.00	205,791.33
08-709	48" Pony Drive	DBT	n/a	95357-10	1/14/2004	50,625.00	3,037.50	-	53,662.50
n/a	350 MCM Electrical Power Cable	n/a	n/a	qty - 5,000'	12/31/1989	48,034.35	2,882.06	500.00	51,416.41
04-058	Pan Bolter (longwall face extraction)	ARO	n/a	15019	3/31/2005	62,500.00	3,750.00	500.00	66,750.00
04-058	Pan Bolter-Bolt Intensifier	Hilti	n/a	n/a	6/22/2012				
	Total					$1,189,826.02	$71,389.56	$40,416.00	$1,301,631.58

Rebuild Estimate:

DATE	PO NO	Vendor	Description	PO/Firm Est.	Estimate
2/4/2015	RLX71628	Anixter	4/0 Cable for LW Bretby	$ 19,967.50	$ -
2/4/2015	RLM165400	Intermountain Electronics	Bretby	11,043.60	-
2/5/2015	RLM165404	Lewis Goetz	Hyd Hoses for Bretby	4,825.05	-
2/5/2015	RLN8314	Echo Industries	Repair of LW cables	-	11,000.00
2/5/2015	RLN8315	Echo Industries	Assembly of Bretby	-	1,200.00
2/16/2015	RLM165517	Mine West	Conflow sprays and housings	3,440.52	-
2/16/2015	RLN8331	Joy Mfg	LW Storage Charges	1,000.00	-
2/18/2015	RL-OH-285	Joy Mfg	Rebuild and Re-hand Shearer	529,370.00	-
2/18/2015	RL-OH-286	Joy Mfg	Rebuild and Re-Hand Headgate	178,273.00	-
2/18/2015	RL-OH-287	Joy Mfg	Rebuild and Re-Hand Tailgate Drive	252,460.00	-
4/28/2015	OH287 CO1	Joy Mfg	Change order to replace gob plate sigma race	10,710.00	-
2/18/2015	RL-OH-288	Joy Mfg	Rebuild Stageloader	225,641.00	-
4/28/2015	OH288 CO1	Joy Mfg	Change order to make extension to fit CMT	11,572.00	-
2/18/2015	RL-OH-289	Joy Mfg	Rebuild Crusher	119,640.00	-
2/18/2015	RL-OH-290	Joy Mfg	Crawler Mounted Tailpiece Rebuild	121,927.00	-
2/18/2015	RL-OH-284	Joy Mfg	Shield Rebuild Basic	500,000.00	
3/31/2015	RL-OH-293	Joy Mfg	Gate Shield topple protection (5)	-	100,000.00
4/17/2015	RL-OH-294	Joy Mfg	Special Panline Rebuild	1,050,000.00	-
2/20/2015	RL-OH-292	Intermountain Electronics	Face Controller Rebuild (22-226)	27,513.00	-
		Morcon	Monorail Rebuild	164,906.50	-
4/8/2015	RLM165961	Morgantown Machine	Fabricate Trolleys	31,178.25	-
3/31/2015	RLN-8380	Morgantown Machine	Monorail Rebuild		60,000.00
4/8/2015	RLM-165960	Morgantown Machine	Push Pull	34,285.00	-
3/31/2015	RLN-8379	Morgantown Machine	Emulsion Pump Rebuild Option 2	34,877.45	-
3/31/2015	RLN-8379	Morgantown Machine	Emulsion Tank Skid Repairs	13,845.00	-
3/31/2015	RLN-8385	Morgantown Machine	Shearer Drum Rebuild	50,000.00	-
4/6/2015	RLM165943	ESCO	Bit Sleeves and Blocks for Drums	31,680.00	-
		Neilson Construction	Transportation from Deer Creek to Joy	-	45,000.00
		Joy Mfg	Handling Charges	-	45,000.00
2/25/2015	RLW-35742	M-Tec	Re-tip of face conveyor flygts	60,400.00	-
2/25/2015	RLM165607	Joy Mfg	New E-bolts for Conveyor chain	19,225.47	-
2/25/2015	RLN8343	Intermountain Electronics	Test and clean section transformer	30,186.00	-
2/25/2015	RLW-35743	Seetech	Clean and repair High Pressure Filters	8,703.92	-
2/25/2015	RLN8344	Guymon's	Face Chain Disassembly	2,336.00	-
2/25/2015	RLN8345	Guymon's	Assembly of Conveyor Chain	14,268.00	-
2/25/2015	RLN8345	Guymon's	Clean and Repair E-Bolts	5,120.00	-
2/26/2015	RLM165624	RM Wilson	Face Chain, Nuts, Bolts	98,345.40	-
2/26/2015	RLW35746	Industrial Electric	600 HP Motors of LW equipment (2)	16,754.48	-
2/26/2015	RLW35747	Industrial Electric	250 HP Motors (3)	20,238.12	-
3/5/2015	Issue from INV	Industrial Electric	650 TVVS Fluid Coupler	16,000.00	-
3/5/2015	Issue from INV	Industrial Electric	562 TVFE Fluid Coupler	49,181.55	-
4/20/2015	RLN8395	Guymon's	Chain Trailers (4)	7,200.00	-
Subtotals				$ 3,776,113.81	$ 262,200.00
Total (excluding sales tax)					$ 4,038,313.81
Sales Tax					240,279.67
Total					$ 4,278,593.48

EXHIBIT "B" TO
PURCHASE AND SALE AGREEMENT

BILL OF SALE

This Bill of Sale is executed and delivered this __ day of _____, 2015, by PACIFICORP, an Oregon corporation, as seller ("Seller"), to Bridger Coal Company ("Buyer"), in consideration of the payment by Buyer to Seller of $18,242,372.32 (as adjusted as provided under Transportation in Exhibit A) the receipt of which is hereby acknowledged. All applicable sales tax, which is estimated at $1,112,318.91, will be paid by the Buyer directly to appropriate taxing authorities and $882,866.67 for the second armored face conveyor (pan line) which will be contracted for directly by the Buyer. Seller hereby sells, transfers and conveys all of its right, title and interest in and to the property described on Schedule "I" attached hereto (the "Equipment") to Buyer and its successors and assigns, to have and to hold forever.

THE EQUIPMENT IS SOLD HEREUNDER "AS IS" AND "WHERE IS" WITH NO WARRANTIES OR REPRESENTATIONS BY SELLER WHATSOEVER, WHETHER EXPRESS OR IMPLIED, AS TO ANY MATTER RELATING TO THE EQUIPMENT, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUBJECT ONLY TO THE WARRANTY BY SELLER THAT SELLER HAS GOOD, VALID AND MARKETABLE TITLE TO ALL OF THE PURCHASED ASSETS, AND HEREBY CONVEYS THE EQUIPMENT TO BUYER FREE AND CLEAR OF ANY LIEN, CLAIM OR ENCUMBRANCE OF ANY PARTY CLAIMING AN INTEREST THROUGH SELLER.

SELLER

PACIFICORP

By _____
Name: _____
Title _____

Transportation to Buyer:

Item	Items Per Load	Units	Move Time >45 Days	Estimated Dollars
Line Shields	Per Shield	123	$ 2,200.00	$ 270,600.00
Gate Shields	Per Shield	7	$ 2,700.00	18,900.00
Pan Line	6 Pans Per Load	232	$ 1,700.00	65,733.33
Head Drive & Tail Drive	Each	4	$ 4,900.00	19,600.00
Stage Loader	Each	2	$ 3,700.00	7,400.00
Mobile Tailpiece	Each	2	$ 3,700.00	7,400.00
Crusher	Each	2	$ 2,700.00	5,400.00
Shearer				-
Arms	Each	1	$ 3,600.00	3,600.00
Body	Each	1	$ 2,700.00	2,700.00
Monorail	Each	2	$ 1,500.00	3,000.00
Electronics	Each	2	$ 1,550.00	3,100.00
Chain	2 Per Load	9	$ 1,550.00	13,950.00
Chain Tubs	2 Per Load	9	$ 1,550.00	13,950.00
Chain Trailers	1 Per Load	4	$ 1,950.00	7,800.00
Pump Car	1 Per Load	4	$ 1,950.00	7,800.00
Portable Cars	1 Per Load	2	$ 1,950.00	3,900.00
Monorail Trailers	1 Per Load	5	$ 2,050.00	10,250.00
				$ 465,083.33
Escalation (2014 to 2015)				9,301.67
Contingency @ 10%				47,438.50
Total				$ 512,521.83

Transportation to Buyer, the rebuild of certain equipment is subject to change and Seller will notify Buyer of the final Purchase Price adjusted for those changes.

EXHIBIT "C" TO
PURCHASE AND SALE AGREEMENT

Owner ADR NELSON

ACORD **CERTIFICATE OF LIABILITY INSURANCE** 6/22/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
BRADY DOTSON
COHNE STRETCHER DUNPHY & ZIMMERMANN
9 TRIAD CENTER SUITE 340
SALT LAKE CITY UT 84180

CONTACT NAME: NANCY CLOVER
PHONE: 801-532-3675 FAX: 801-532-7499
E-MAIL ADDRESS: nclover@cdzlaw.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: ZURICH AMERICAN INSURANCE COMPA	
INSURER B: HANOVER INSURANCE COMPANY	
INSURER C:	
INSURER D:	
INSURER E:	

INSURED
NELSON CONSTRUCTION
PO BOX 220
HUNTINGTON UT 84528

COVERAGES CERTIFICATE NUMBER REVISION NUMBER

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X CONTRACTUAL LIAB PER X POLICY FORM AND SCH GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO- JECT LOC			GL7063170701	05/01/2015	05/01/2016	EACH OCCURRENCE $1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) $100,000 MED EXP (Any one person) $10,000 PERSONAL & ADV INJURY $1,000,000 GENERAL AGGREGATE $2,000,000 PRODUCTS - COMP/OP AGG $2,000,000 $
A	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			BAP5X2390770	05/01/2015	05/01/2016	COMBINED SINGLE LIMIT (Ea accident) $1,000,000 BODILY INJURY (Per person) $ BODILY INJURY (Per accident) $ PROPERTY DAMAGE (Per accident) $ $
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE $ AGGREGATE $ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT $ E.L. DISEASE - EA EMPLOYEE $ E.L. DISEASE - POLICY LIMIT $
B	MOTOR TRUCK CARGO (BROAD FORM)			RHA4239610 IN1	05/01/2015	05/01/2016	PROPERTY IN VEHICLES $2,000,000 DEDUCTIBLE $10,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ATTACH ACORD 101, Additional Remarks Schedule, if more space is required)
ADDITIONAL INSURED ONLY IF REQUIRED BY WRITTEN CONTRACT WITH RESPECT TO GENERAL LIABILITY ENERGY WEST

CERTIFICATE HOLDER
ENERGY WEST
21 NORTH MAIN STREET
HUNTINGTON, UT 84528

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05) 1 of 1 The ACORD name and logo are registered marks of ACORD
#S710217/M711208 KKM

Attachment 2

PHILLIPS

367 George Street
Beckley, WV 25801
Phone: (304) 255-0537
Fax: (304) 255-0565
www.phillipsmachine.com

February 25, 2015

Energy West Mining Company
15 North Main
PO Box 310
Huntington, Utah 84528

Attention: Mr. Rick Larsen
Email: rick.larsen@pacificorp.com

Subject: Appraisal of Long Wall Mining Equipment

Dear Rick:

Please find enclosed my appraisal of the subject Long Wall Mining Equipment. This is an appraised, fair market value of the Equipment. It is not an offer to purchase or sell the Equipment, only a fair market value, assuming there were a willing buyer and a willing seller of this equipment.

If there are any questions about this appraisal, please call or email us.

Sincerely,
Phillips Machine Service, Inc.

Jeff Grizzle
Member-Certified Appraisers Guild
Of America

Cc: Reggie Farlaino

Energy West Mining Company
Request for Proposal (RFP)____
Exhibit B
Equipment List and Valuation Schedule

Component	SAP Asset #	Serial Number	EW Asset #	Cap. date	Description	Quantity	Total Market Value as of 02/25/15	Valuation Methodology and Description
Shields	400000206488, 6503		21-226	12/6/2010, 4/18/2011	Joy Shields (two legged, 1,170 ton capacity, reconstructed)	130 Each	$9,750,000.00	130 @ $75,000 each
Shearer	400000206489	LWS613D	22-223	12/6/2010	Joy 7 LS with dual 72" diameter cutting drums and lump breaker (reconstructed	1 Each	$750,000.00	Rebuilt Joy
		LWS613	22-212		Joy Shearer (lease - Joy 7 LS)	1 Each	$300,000.00	Excluded from Total
AFC	400000206490		22-224	12/6/2010	Joy AFC - #1 (2 x 600 hp x 940 millimeterm - reconstructed)	116 Each	$290,000.00	116 @ $2,500 each
	400000206510		~~22-225~~	~~4/18/2011~~	~~Joy AFC - #2 (2 x 600 hp x 940 millimeterm - reconstructed)~~	~~116 Each~~		
					Subtotal		$10,790,000.00	
Drives	400000206506	HD1109	22-214	4/18/2011	Joy Headgate Drive (2 x 250 hp x 1,154 millimeter)	1 Each	$220,000.00	
	400000206507	TD1109	22-215	4/18/2011	Joy Tailgate Drive	1 Each	$170,000.00	
			22-185		Joy Headgate Drive	1 Each	$200,000.00	
			22-186		Joy Tailgate Drive	1 Each	$150,000.00	
					Subtotal		$740,000.00	
Stage Loader	~~400000206504~~	SL1109	22-216	4/18/2011	Joy Stage Loader	1 Each	$250,000.00	
		SL1083	22-210		Joy Stage Loader	1 Each	$150,000.00	
					Subtotal		$400,000.00	
Crusher	400000206509	CR1109	22-217	4/18/2011	Joy Crusher	1 Each	$250,000.00	
		CR1083	22-209		Joy Crusher	1 Each	$150,000.00	
					Subtotal		$400,000.00	
Emulsion	~~400000206031~~		~~22-211~~	~~3/30/2006~~	~~Emulsion Pump and Control System (Hauhinco)~~	1 Each	$0.00	
	~~400000206511~~	~~97201~~	~~22-222~~	~~4/18/2011~~	~~Emulsion System Assembly (controller/tan/skid - Hauhinco)~~	1 Lot		
	400000206513	70	22-219	4/18/2011	Emulsion System Pump - #1 (Hauhinco)	1 Each	$15,000.00	
	400000206514	71	22-220	4/18/2011	Emulsion System Pump - #2 (Hauhinco)	1 Each	$15,000.00	
	400000206515	72	22-221	4/18/2011	Emulsion System Pump - #3 (Hauhinco)	1 Each	$15,000.00	
					Subtotal		$45,000.00	
Monorail	~~400000205156~~		~~22-160~~	~~12/31/1993~~	~~Monorail Cable Handling Device (Westfalia)~~	1 Each	$0.00	
	400000206563		22-227	1/30/2012	Monorail System - #1	1 System	$20,000.00	
	~~400000206593~~		22-228	6/26/2012	Monorail System - #2 (Scharf)	1 System	$20,000.00	
					Subtotal		$40,000.00	
Scrubber	400000205741	4145	19-039	4/5/2002	Scrubber System (Spendrup)	1 System	$20,000.00	
	400000205742	4146	19-040	4/5/2002	Scrubber System (Spendrup)	1 System	$20,000.00	
					Subtotal		$40,000.00	
Communication	400000206491		22-000	12/6/2010	Communication System (reconstructed - Joy Global)	1 System	$11,000.00	
Tailpiece	400000206508	BT1109	08-735	4/18/2011	Crawler-Mounted Tailpiece (Joy-BT-1109)	1 Each	$75,000.00	
	400000205449	64-223	08-703	12/31/1997	Crawler-Mounted Tailpiece (Long Airdox\LUA 00565)	1 Each	$15,000.00	
					Subtotal		$90,000.00	
Electrical	400000206512	P0331A	06-584	4/18/2011	Electrical Power Center #1 (reconstructed - Intermountain Electronics)	1 Each	$125,000.00	
	400000206516	P0346A	06-585	4/18/2011	Electrical Power Center #2 (reconstructed - Intermountain Electronics)	1 Each	$125,000.00	

Energy West Mining Company
Request for Proposal (RFP)____
Exhibit B
Equipment List and Valuation Schedule

Component	SAP Asset #	Serial Number	EW Asset #	Cap. date	Description	Quantity	Total Market Value as of 02/25/15	Valuation Methodology and Description
	400000206517	P0331B	22-226	4/18/2011	Electrical Master Control (RS20S)	1 Lot	$50,000.00	
	400000206518		22-999	4/18/2011	Electrical System	1 System	$125,000.00	
	400000206492	P0346B	22-218	12/6/2010	Electrical Master Control (RS20S)	1 Lot	$50,000.00	
					Electrical Master Control (Reconstructed)	1 Lot		
					Subtotal		$475,000.00	
Chain Container	400000204709		22-102	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204710		22-103	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204711		22-104	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204712		22-105	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204713		22-106	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204714		22-107	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204715		22-108	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204716		22-109	12/31/1987	Chain Containers	1 Each	$ 1,000.00	
	400000204812		22-995	12/31/1989	Chain Containers (Dale Mining Co.)	1 Each	$ 1,000.00	
					Subtotal		$9,000.00	
Other	400000205519			12/31/1998	Support Transport Trailer	1 Each	$ 7,500.00	
	400000205519			12/31/1998	Support Transport Trailer	1 Each	$ 7,500.00	
	400000204867	906001	23-108	12/31/1990	Shield Retriever (Petitto04641)	1 Each	$ 125,000.00	
	400000205714	15228	22-203	12/31/201	Shield Retriever Electric (Petitto-1150 R))	1 Each	$ 75,000.00	
	400000204964	003-83572	14-074	12/31/1991	Skid-Mounted Rotary Air Compressor (Sullair-580CFM-7734)	1 Each	$ 1,500.00	
			22-195		Move Pump (480 volt)	1 Each	$ 50,000.00	
			22-195		Move Pump (750volt)	1 Each	$ 50,000.00	
					Subtotal		$266,500.00	
					Total (excluding the leased shearer)		$13,306,500.00	

ASSET APPRAISAL
DEER CREEK MINE - LONGWALL SYSTEM
Emery County, Utah

Prepared For
ENERGY WEST MINING COMPANY

By
John T. Boyd Company
Mining and Geological Consultants
Pittsburgh, Pennsylvania

Report No. 1618.100
MARCH 2015

John T. Boyd Company
Mining and Geological Consultants

Denver
Dominion Plaza, Suite 710S
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(303) 293-8988
(303) 293-2232 Fax
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Pittsburgh
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March 4, 2015
File: 1618.100

Energy West Mining Company
15 North Main Street
Huntington, Utah 84528

Attention: Mr. Rick Larsen
Materials/Procurement Specialist

Subject: Asset Appraisal
Deer Creek Mine – Longwall System
Emery County, Utah

Dear Mr. Larsen:

Based on information provided by Energy West Mining Company (EW) and field observations of equipment and infrastructure made on February 23rd and 24th, John T. Boyd Company (BOYD) has developed an independent appraisal opinion covering the Fair Market Value (FMV) of the longwall (LW) system assets owned by EW.

The Deer Creek Coal Mine, located in Emery County, Utah (see Figure 1, following this text), commenced operation in 1974. The mine's output was sold to the nearby Huntington station (PacifiCorp). As remaining coal reserves are higher in ash and sulfur contents, PacifiCorp elected to close the mine. In January 2015, LW mining was completed and the equipment has been systematically recovered and brought to the surface for reconditioning and eventual reuse at another mine.

The equipment and components were observed by a two-member BOYD team that visited the JOY Mining Machinery facilities in Wellington, Utah, as well as the EW corporate facilities in Huntington. Supplemental information

was provided during the visit by Stan Marvidakis (JOY service coordinator) and Stuart Voda (Longwall Maintenance Coordinator – Deer Creek).

Procedures

By assignment, BOYD was to opine on the FMV of the specified LW system and associated assets on an "as-is, where-is" basis. The following definition of FMV is used in this report:

- Fair Market Value (FMV): The price at which an asset would exchange ownership between a willing buyer and a willing seller, each having reasonable knowledge of all pertinent facts (i.e., asset to be purchased and the market for such property), without being under any compulsion to buy or sell, and both are able and willing to act. FMVs are assigned based on normal used equipment market conditions, but actual sales price is directly affected by the demand for used equipment at the time of sale.

The assessment and appraisal of used mining equipment considers numerous factors, including:

- Operating condition, age, historic use, and maintenance history.
- Current or planned application or special use requirements, obsolescence, active population, and local/regional markets).

The LW system was appraised on an "as-is, where-is" basis, i.e., on the surface, but prior to planned reconditioning and/or further dismantlement, moving, and installation at another site. In determining the FMV, BOYD employed either the cost or market approach (as appropriate). The cost approach begins with the new replacement cost then reduces this value for age, use, condition, and obsolescence. The market approach establishes value by analyzing recent sales or asking prices of comparable equipment. This market consists of equipment brokers, dealers, public and private sales, and auctions.

To monitor FMVs for used mining equipment, BOYD subscribes to numerous published sources. We also maintain close contact with major manufacturers and used equipment brokers. In addition, our internal files and reports, which include confidential information on private transactions, are available.

The condition of equipment was based on appearance, discussion with site maintenance personnel, and available information provided by EW, including model, age, and usage and maintenance history.

The appraised value of LW spare parts and other inventory in the EW warehouse was assigned by discounting the reported book value of the inventory.

This appraisal report is presented in summary form.

General Assessment

The Deer Creek LW system is considered to be outdated technology under current industry practice for the following reasons:

- The system is designed for a 750-ft wide face configuration (narrow) and would be considered underpowered by today's standards. Current industry has transitioned to 4160V from the older 2300V design used at Deer Creek.
- The face conveyor utilizes twin 34 mm chains, which limits the potential to lengthen the face (as larger face chain would not be able to fit through the return deck). Current industry has transitioned to 42 mm to 48 mm chains. Additional drives and power center upgrades would also be needed.
- The shearer is adequate for the current configuration, but an upgrade to 4160V would be required.
- The shields are in the best condition of any of the LW system components, having recently been thoroughly rebuilt. However, there are only 130 shields – which is not enough to equip a wider face. Reuse of the subject LW assets would be constrained to western type seam conditions with adequate face height to operate.
- Uncertainty regarding potential federal regulations toward automation will be a consideration for any purchaser. The system components have not been equipped with automation upgrades.

Appraisal Summary

Based on our assessment of the EW Deer Creek LW system, it is BOYD's independent opinion that the FMV, as of March 2015, totals $13.35 Million.

LW Appraised Assets	FMV ($, as of March 2015)
Shields	7,850,000
Shearer	440,000
AFC	1,190,000
Drives	543,400
Stage Loader(s)	874,000
Crusher(s)	352,000
Emulsion System	220,000
Monorail System	184,000
Scrubber(s)	25,000
Tailpiece(s)	142,000
Electrical	847,500
Communication	35,000
Misc./ Other	642,884
Total	13,345,784

See Table 1, following this text, for the equipment list and appraised FMV, and Appendix A for site visit photographs.

Capability Statement and Project Team

BOYD is a full-service mining and geological consulting firm with a 71-year history of providing professional services to a diverse client base. We are based in Canonsburg, Pennsylvania (near Pittsburgh), and have offices in Denver, Brisbane (Australia), and Beijing (China). Our full-time staff maintains expertise in all primary aspects of the mining industry:

- Geology and reserves
- Valuations and appraisals
- Geotechnical analysis
- Operational assessments
- Surface and underground mine planning
- Strategic business plans
- Mineral processing and material handling
- Environmental assessments
- Market and transportation analysis
- Price forecasting
- Competitor analysis
- Financial analysis
- Litigation support
- Mine health and safety

We have had unparalleled exposure to a vast array of coal and mineral properties, including access to commercial data and technical documentation, during the course of our assignments for clientele such as mining companies, utilities, financial institutions,

attorneys, reserve owners, equipment manufacturers, and other participants in the mineral industries. While proprietary information acquired during the course of other assignments remains confidential, our collective experience provides BOYD with a solid foundation to apply professional judgment and offer informed and supported opinions in this matter.

BOYD's domestic and international services include evaluations of projects involving metals, non-metals, aggregates, and industrial minerals, but the majority of our business is related to coal. We have performed thousands of coal-related assignments in the United States in every major coal-producing basin. This includes detailed and extensive experience relative to projects located in the western United States.

A significant portion of BOYD's core business activities is focused on the valuation of coal properties and the appraisal of related equipment and plant assets. We routinely provide technical and financial advisory services to participants in property transactions. BOYD closely participates in industry transactions involving reserves, operating mines, and coal-handling facilities in the ordinary course of providing consulting services to buyers, sellers, or lenders. BOYD has provided advisory services involving coal-related projects in numerous financial transactions, including mergers/acquisitions, IPOs, bankruptcy cases, and private financial restructurings (work-outs). We monitor coal industry transactions on an ongoing basis through publicly available documentation, proprietary data, and our network of industry contacts.

The breadth of the work scope for this assignment necessitated assigning personnel with specialty experience in underground mining equipment, specifically LW systems. BOYD's core project team was comprised of the following personnel:

Team Member	Experience	Area of Expertise/ Project Participation
Ronald L. Lewis Managing Director and COO	Over 40 years; registered professional engineer; diverse experience in the analysis and valuation of coal and mineral properties throughout the US and internationally.	Overall review of project findings.
Donald S. Swartz II Vice President	Fifteen years of experience in engineering, operations, and evaluation of domestic and international mining operations. Extensive background in underground mining operations, including room-and-pillar and LW mining methods. Scope of experience includes mining system assessments and appraisals.	Project Manager and participant in site visit. Worked in conjunction with David Kumpar to develop appraisal findings presented herein.

Team Member	Experience	Area of Expertise/ Project Participation
David G. Kumpar Senior Consultant	Over 40 years; certified mine foreman and mine electrician; direct experience in the purchase, maintenance, and management of a continuous miner, LW, and support equipment fleet at a major underground mine.	Participant in field visits; appraisal of underground mining equipment.

Closing

The undersigned certify that, to the best of our knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the assets that are the subject of this report and no personal interest with respect to the parties involved other than client/consultant (appraiser).
- We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- BOYD's engagement in this assignment was not contingent upon developing or reporting predetermined results.
- BOYD's compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with industry standards and practices related to used mining equipment appraisal.
- Messrs. Swartz and Kumpar made personal observations of the assets that are the subject of this report.
- No one provided significant personal property appraisal assistance to the persons signing this certification.

Following this page are:

Figure 1, General Location Map

Table 1, Equipment List and Appraised FMV

Appendix A, Photographs of Appraised Assets Taken February 23 and 24, 2015

Respectfully submitted,

JOHN T. BOYD COMPANY
By:

David G. Kumpar
Senior Consultant

Donald S. Swartz II
Vice President

Ronald L. Lewis
Managing Director and COO

K:\Projects\1618.100 Deer Creek LW\GBG\030415 Final Letter Report\Energy West Mining Company.doc

P:\CAD_GROUP-jfg\1618.100\FIGURE 1.DWG

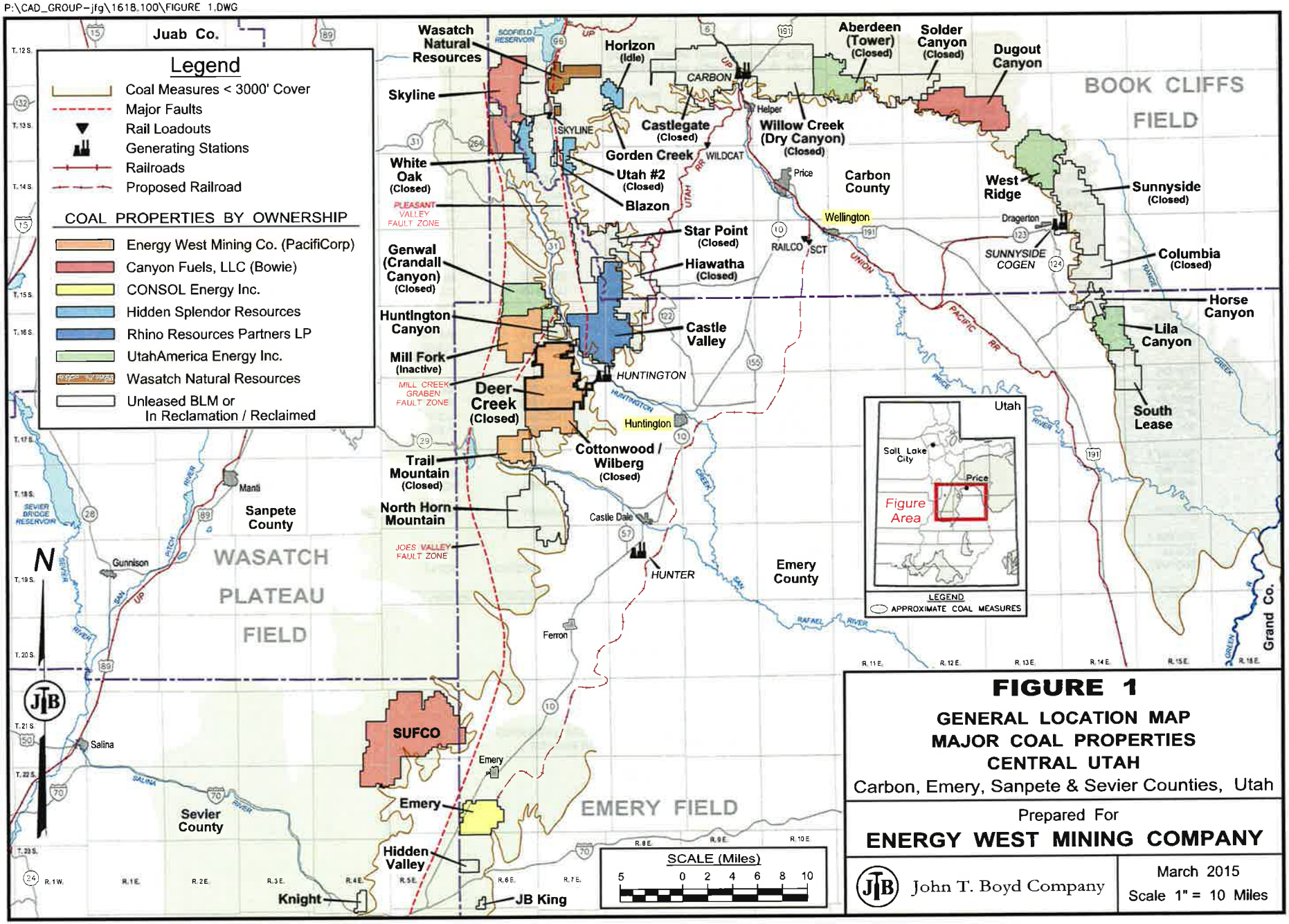


FIGURE 1

GENERAL LOCATION MAP
MAJOR COAL PROPERTIES
CENTRAL UTAH

Carbon, Emery, Sanpete & Sevier Counties, Utah

Prepared For

ENERGY WEST MINING COMPANY

John T. Boyd Company

March 2015

Scale 1" = 10 Miles

TABLE 1

EQUIPMENT LIST AND APPRAISED FMV
EQUIPMENT RECOVERED FROM DEER CREEK MINE
Emery County, Utah
Prepared For
ENERGY WEST MINING COMPANY
By
John T. Boyd Company
Mining and Geological Consultants
March 2015

Component	SAP Asset No.	Serial Number	EW Asset No.	Capitalized Date(s)	Description	Quantity	FMV ($, 3/2015)
Shields	400000206488, 6503		21-226	12/6/2010, 4/18/2011	Joy Shields (two legged, 1,170 ton capacity, reconstructed)	130 Each	7,840,000
					Hemsheidt Recovery Shields, 1.5 M wide with PM-4 remote operation	2 Each	10,000
					Subtotal		7,850,000
Shearer	400000206489	LWS613E	22-212	12/6/2010	Joy 7 LS02 with dual 72-in. diameter cutting drums and lump breaker	1 Each	440,000
AFC	400000206490		22-224	12/6/2010	Joy AFC - No.1 (940 mm wide) with specials, 450 Flyght Bars	116 Each	595,000
	400000206510		22-225	4/18/2011	Joy AFC - No.2 (940 mm wide) with specials, 450 Flyght Bars	116 Each	595,000
					Subtotal		1,190,000
Drives	400000206506	HD1109	22-214	4/18/2011	Joy Headgate Drive with gearbox and 600 hp motor	1 Each	145,000
	400000206507	TD1109	22-215	4/18/2011	Joy Tailgate Drive with gearbox and 600 hp motor	1 Each	126,700
		HD1020	22-185	12/31/1998	Joy Headgate Drive with gearbox and 600 hp motor	1 Each	145,000
		TD1020	22-186	12/31/1998	Joy Tailgate Drive with gearbox and 600 hp motor	1 Each	126,700
					Subtotal		543,400
Stage Loader(s)	400000206504	SL1109	22-216	4/18/2011	Joy Stage Loader (1,154 mm wide) with two gearboxes, 250 hp motors, 74 Flyghts	1 Each	437,000
		SL1083	22-210	7/29/2005	Joy Stage Loader (1,154 mm wide) with two gearboxes, 250 hp motors, 74 Flyghts	1 Each	437,000
					Subtotal		874,000
Crusher(s)	400000206509	CR1109	22-217	4/18/2011	Joy Crusher belt drive wirh 250 hp motor	1 Each	176,000
		CR1083	22-209	7/29/2005	Joy Crusher belt drive with 250 hp motor	1 Each	176,000
					Subtotal		352,000
Emulsion System	400000206031		22-211	3/30/2006	Emulsion Pump and Control System -Hauhinco	1 Each	65,000
	400000206511	97201	22-222	4/18/2011	Emulsion System Assembly (controller/1000 gal.tank/skid) Hauhinco	1 Lot	45,000
	400000206513	70	22-219	4/18/2011	Emulsion System Pump - No.1 (Kamat) K3500 series	1 Each	40,000
	400000206514	71	22-220	4/18/2011	Emulsion System Pump - No.2 (Hauhinco) 3K-300S	1 Each	35,000
	400000206515	72	22-221	4/18/2011	Emulsion System Pump - No.3 (Hauhinco) 3K-300S	1 Each	35,000
					Subtotal		220,000
Monorail System	400000206563		22-227	1/30/2012	Monorail System - No.1, Aluminum (Morgantown Mach./Swanson) 1,000 ft length	1 System	92,000
	400000206593		22-228	6/26/2012	Monorail System - No.2, Aluminum (Morgantown Mach./Swanson) 1,000 ft length	1 System	92,000
					Subtotal		184,000
Scrubber(s)	400000205741	4145	19-039	4/5/2002	Scrubber System (Spendrup) 30 hp, 480 V	1 System	12,500
	400000205742	4146	19-040	4/5/2002	Scrubber System (Spendrup) 30 hp, 480 V	1 System	12,500
					Subtotal		25,000

TABLE 1 - Continued

Component	SAP Asset No.	Serial Number	EW Asset No.	Capitalized Date(s)	Description	Quantity	FMV ($, 3/2015)
Tailpiece(s)	400000206508	1083	08-735	4/18/2011	Crawler-Mounted Tailpiece (Joy-BT-1109)	1 Each	82,000
	400000205449		08-783	12/31/1997	Crawler-Mounted Tailpiece (Long Airdox\LUA 00565)	1 Each	60,000
					Subtotal		142,000
Electrical	400000206512	P0331A	06-584	4/18/2011	Electrical Power Center No.1, 5000 KVA 12470/2300/995/480 (Intermountain Elect.)	1 Each	300,000
	400000206516	P0346A	06-585	4/18/2011	Electrical Power Center No.2,5000 KVA 12470/2300/995/480 (Intermountain Elect.)	1 Each	300,000
	400000206517	P0346B	22-226	4/18/2011	Electrical Master Control (RS20S)	1 Lot	75,000
	400000206518	P0403	22-999	4/18/2011	Electrical System, Mini-Control for remote operation	1 System	12,500
	400000206492	P0331B	22-218	12/6/2010	Electrical Master Control (RS20S)	1 Lot	75,000
			22-193		K&H Face Lighting System, 240 volt	1 System	85,000
					Subtotal		847,500
Communication	400000206491		22-000	12/6/2010	Communication System (reconstructed - Joy Global)	1 System	35,000
Misc./ Other					Shearer Transport Dolly, 4 Wheel	1 Each	25,000
					LW Chain Transport Trailers, 4 Wheel	6 Each	60,000
	400000205519			12/31/1998	Support Transport Trailer, with tool boxes	1 Each	12,000
	400000205519			12/31/1998	Support Transport Skid with tool boxes	1 Each	3,000
					Monorail Transport Cars	5 Each	62,500
			22-102-109		Chain Containers	8 Each	4,000
	400000204867	906001	23-108	12/31/1990	Shield Retriever (Petitto04641) 150 HP Diesel with DST Exhaust Conditioner	1 Each	200,000
	400000205714	15228	22-203	12/31/201	Shield Retriever Electric (Petitto-1150 R))	1 Each	150,000
			22-211		Move Pump, Hauhinco 108 GPM, 330 hp, 1000 V	1 Each	30,000
			22-195		Move Pump , Hauhinco 90 GPM, 330 hp, 480 V	1 Each	25,000
					Longwall Parts Inventory from warehouse	1 Lot	71,384
					Subtotal		642,884
						Total	13,345,784

AFC Headgate Specials, 22-224

Chain Containers, 22-102 to 22-109

APPENDIX A

PHOTOGRAPHS OF APPRAISED ASSETS TAKEN FEBRUARY 23 AND 24, 2015

Prepared For

ENERGY WEST MINING COMPANY

John T. Boyd Company

March 2015

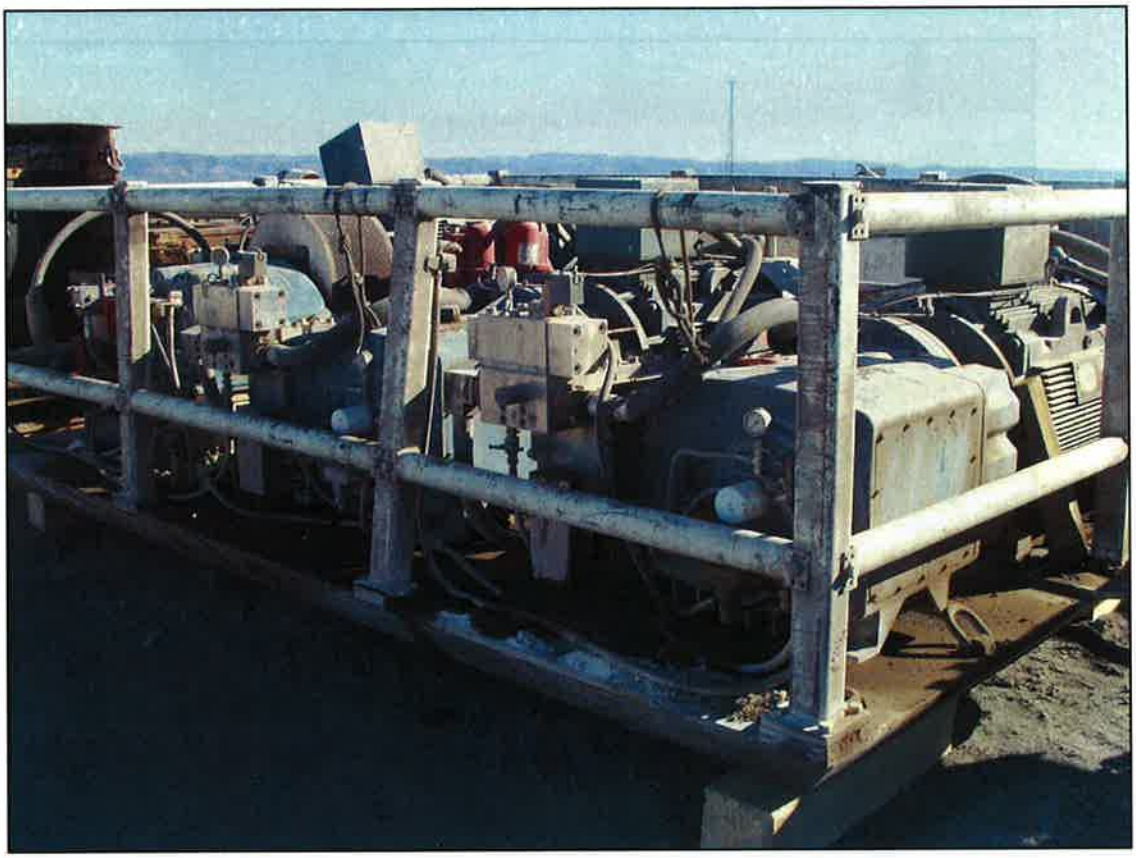
Compressor, 75-HP

Crawler Mounted Tailpiece, 08-735

Crawler Mounted Tailpiece, 08-783

Crusher, 22-209

APPENDIX A - Continued



Emulsion Pumps, 22-211

Emulsion Tank Car, 22-222

Face Conveyor Flights, 22-224

Headdrive Assembly, 22-214

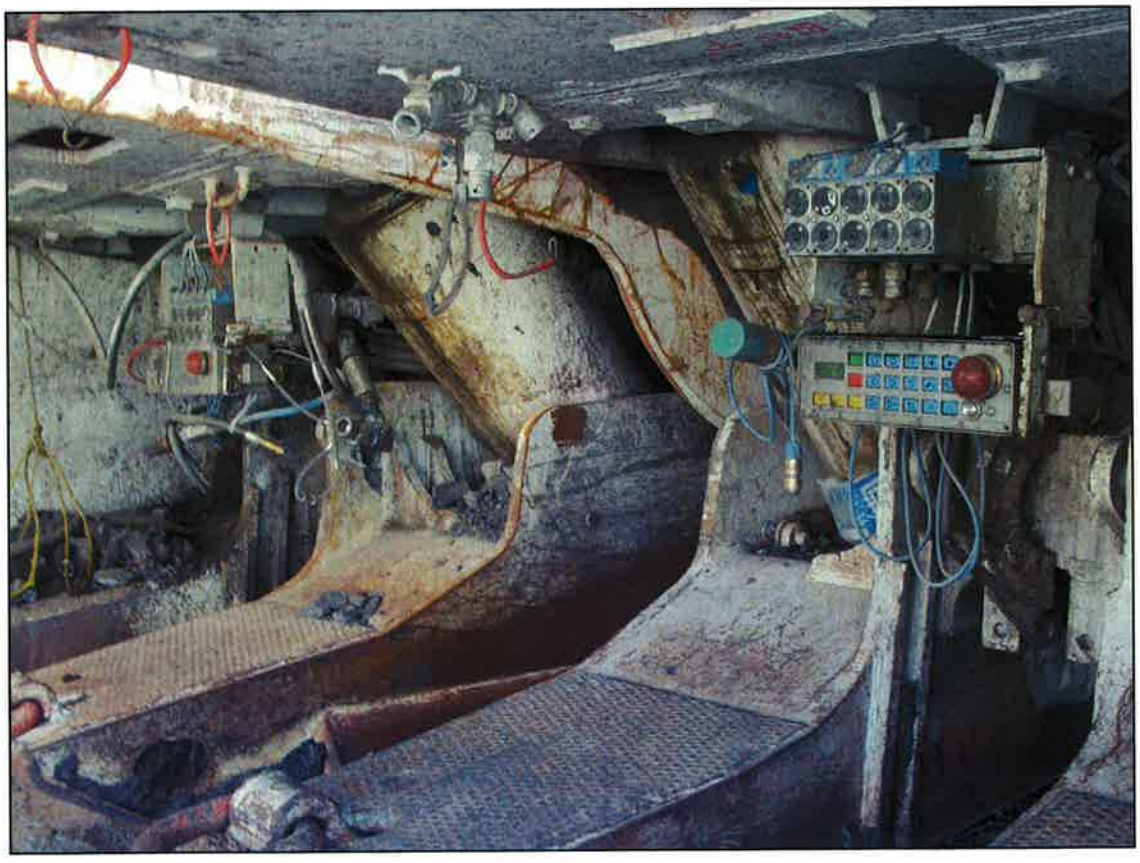
Headdrive Frame 22-185

Headgate Drive Frame, 22-214

Headgate Drive Plateform, 22-185

Headgate Drive Plateform, 22-214

Hernsheidt Recovery Shield (2)



Hernsheidt Recovery Shield

Joy Crusher Assembly, 22-217

Joy Face Conveyor, 22-224

Joy Shearer Mainframe, 22-212 (2)

Joy Shearer Mainframe, 22-212

Joy Shearer Ranging Arm, 22-212 (2)

Joy Shearer Ranging Arm, 22-212

Joy Shields, 21-226 (2)

Joy Shields, 21-226 (3)

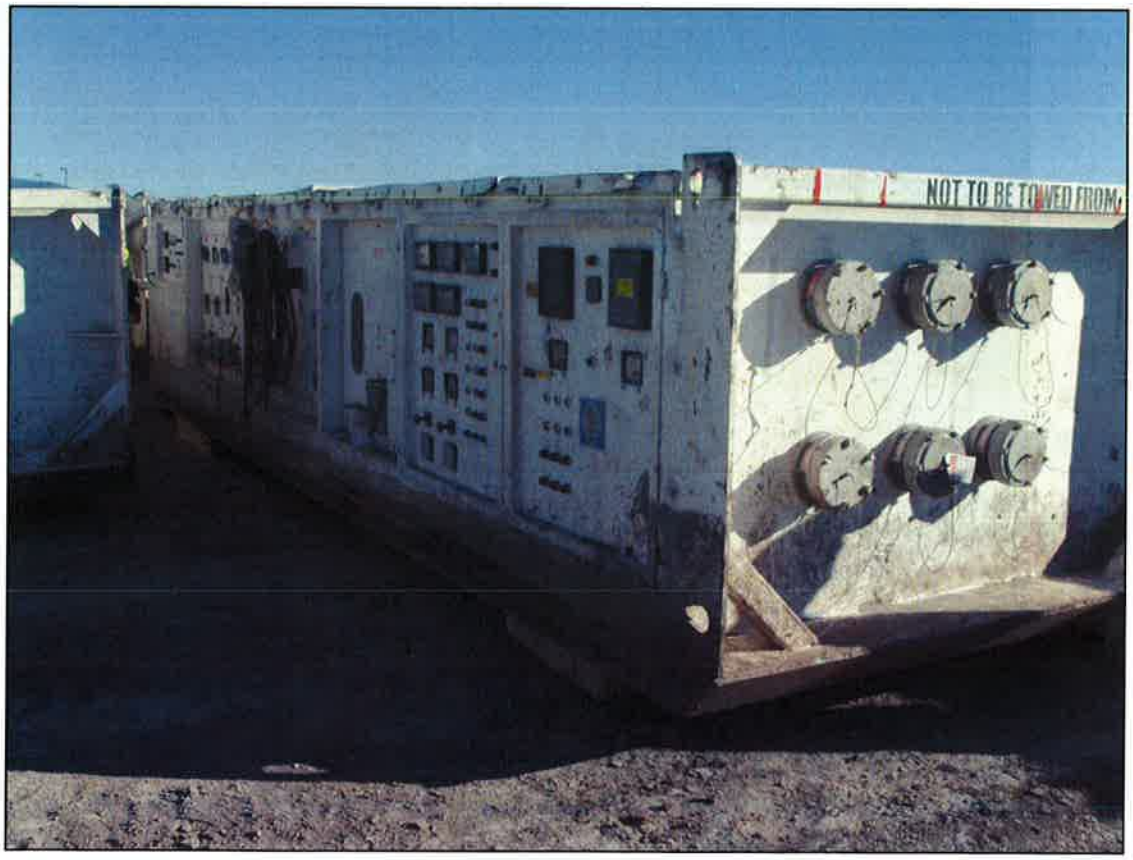
Joy Shields, 21-226

K&H Lighting Parts, 22-193

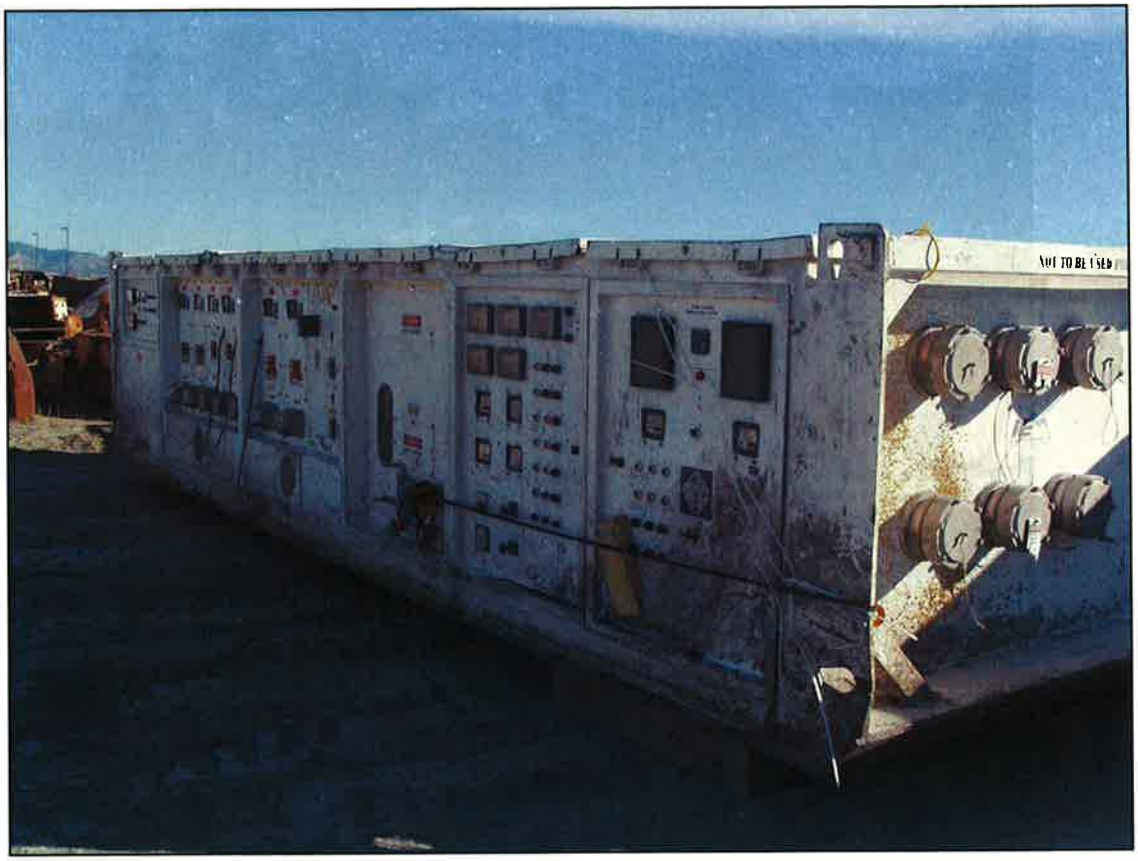
Left Shearer Drum (2)

Left Shearer Drum

LW Chain Support Trailer



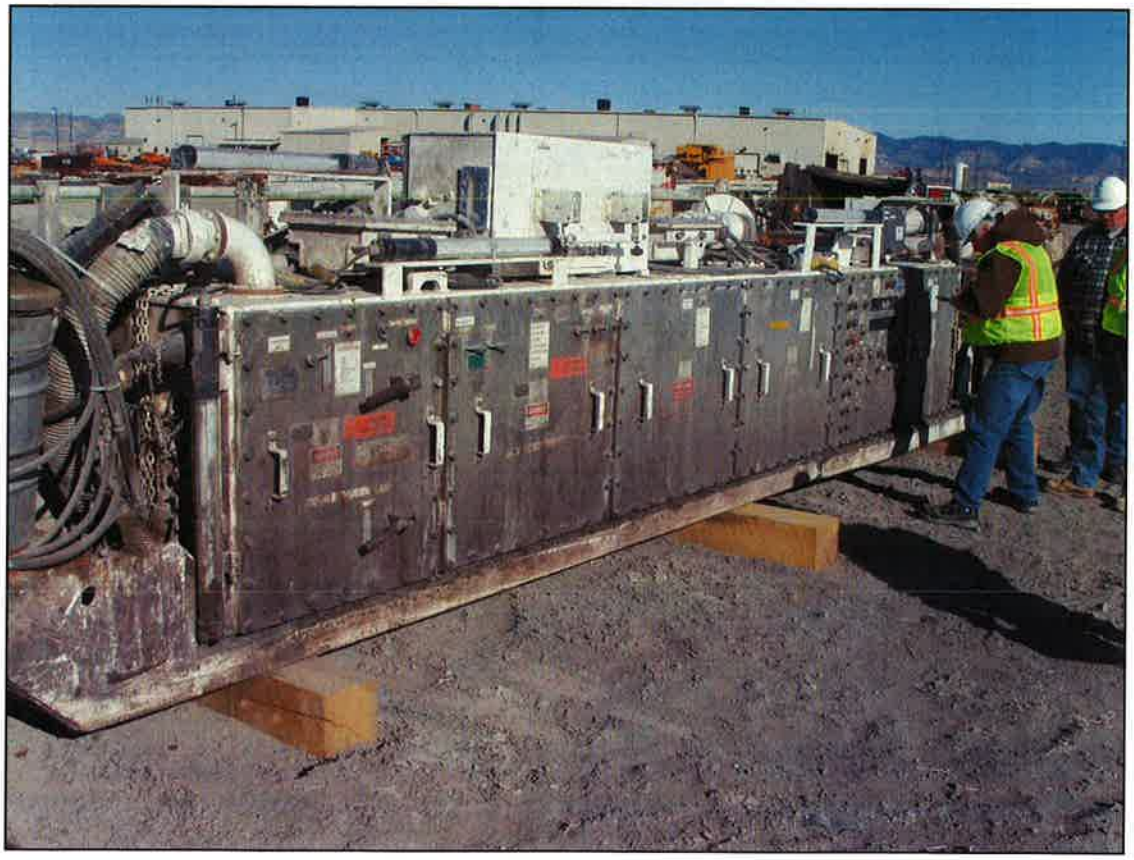
LW Power Center, 06-584



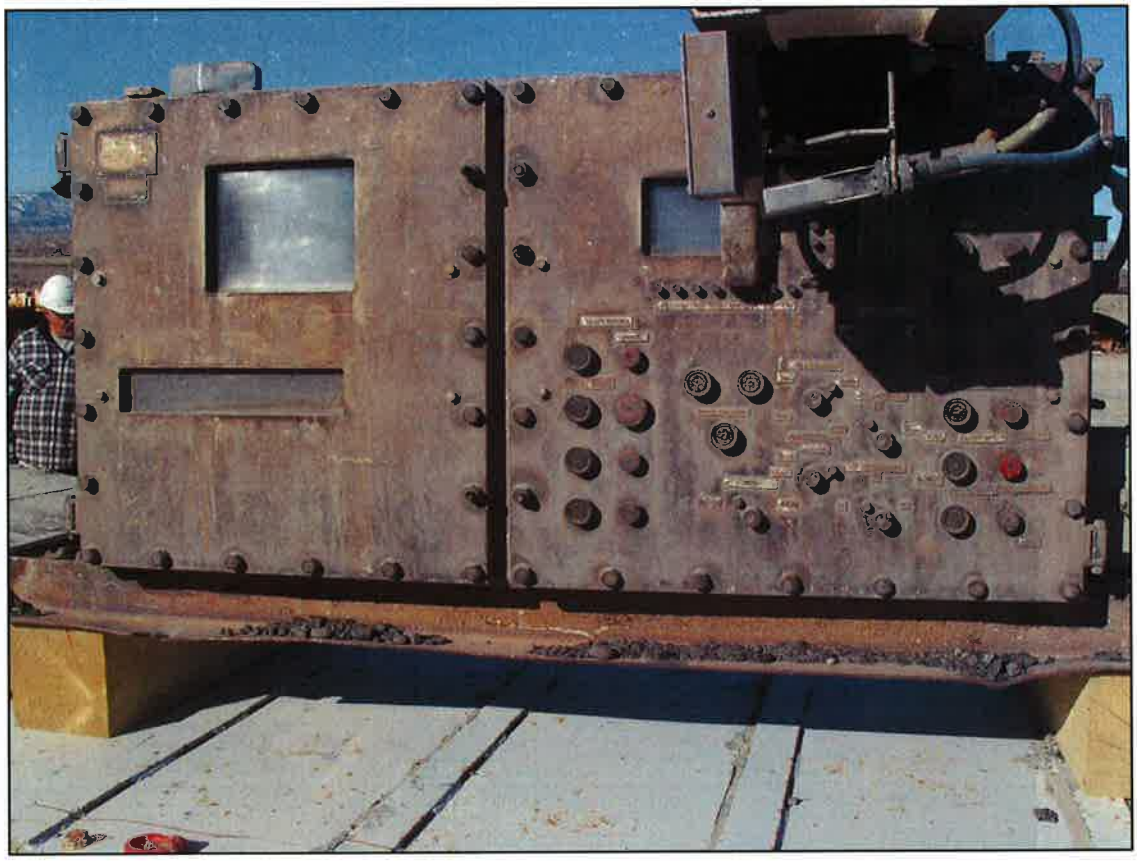
LW Power Center, 06-585

LW Spare Parts

Master Control Station, 22-218



Master Control Station, 22-226



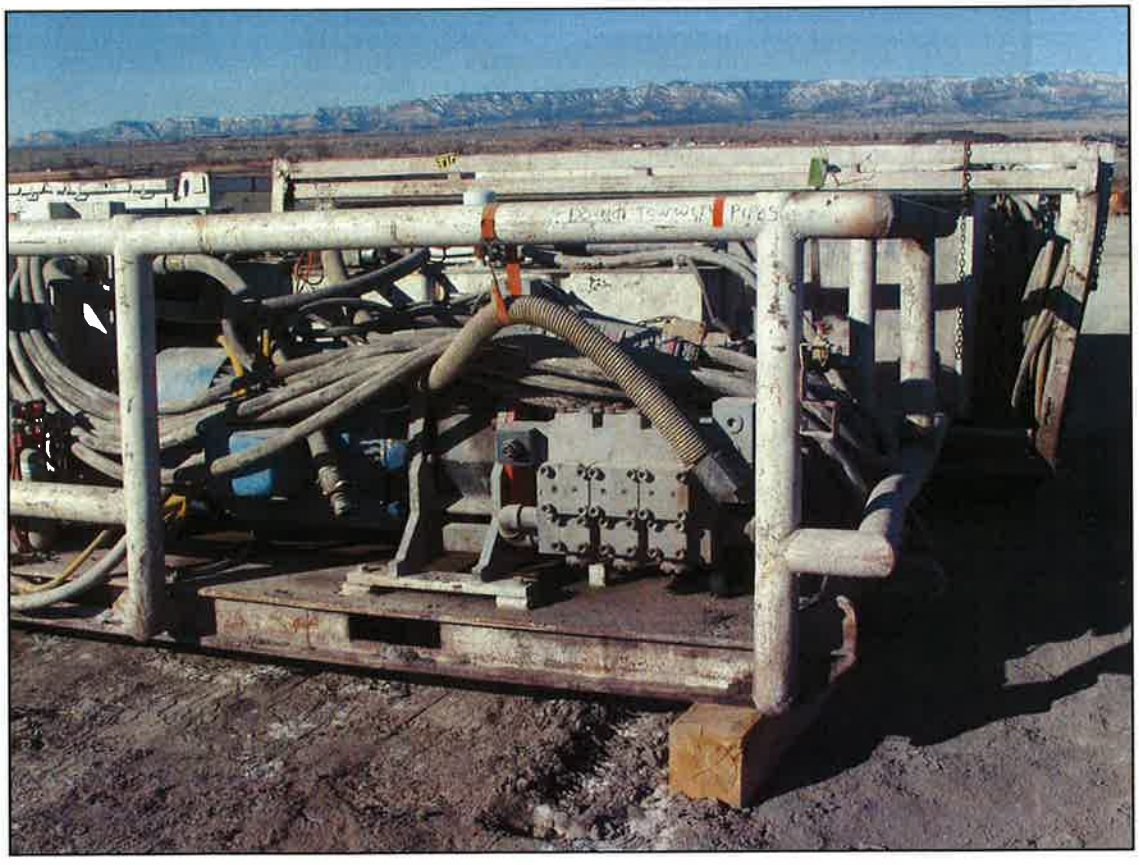
Mini Control Station, 22-999

Monorail Advancing Units, 22-227

Monorail Aluminum Beams, 22-227

Monorail Bogy, 22-227

Monorail Transport Cars with Monorail Components



Move Pump Skid, 22-211

Pan Line Section, 22-224

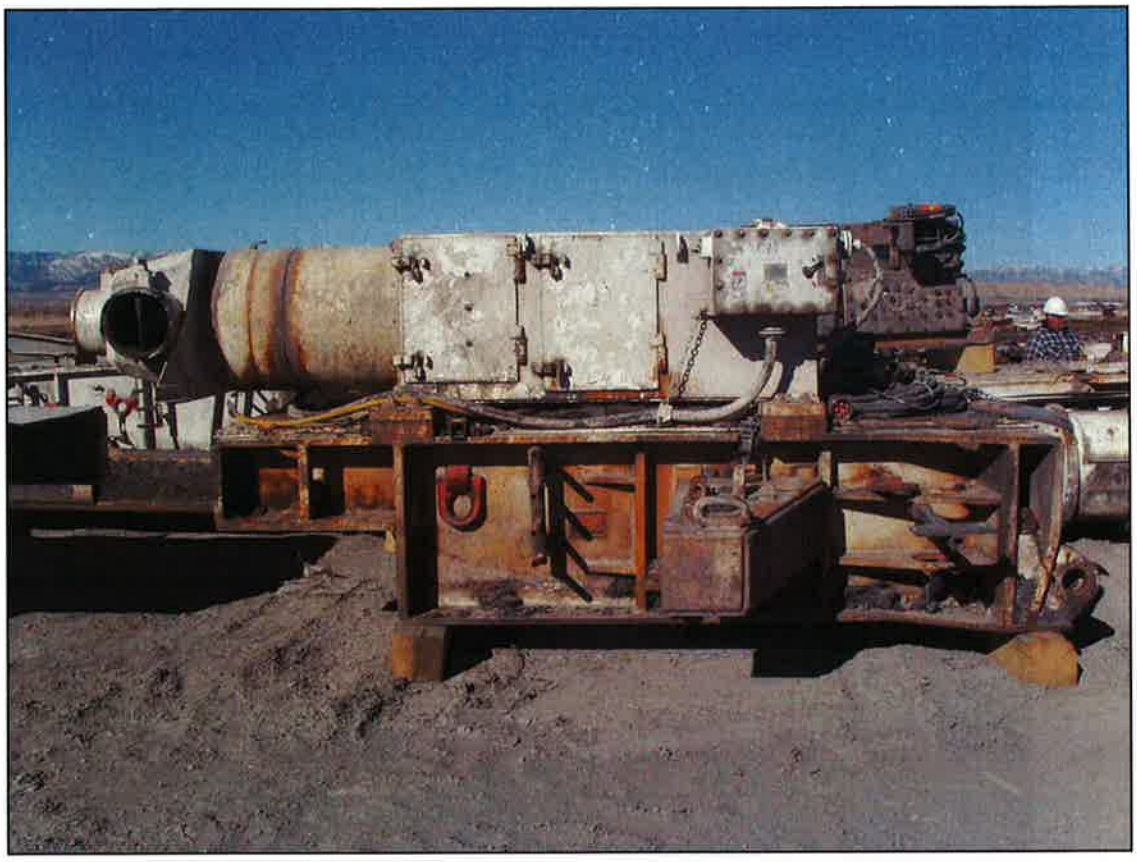
Petitto Mule, 22-108

Petitto Mule, 22-203

Right Shearer Drum (2)

Right Shearer Drum

Scrubber System, 19-039



Scrubber System, 19-040

Shearer Transport Dolly

Spare Longwall Parts (2)

Spare Longwall Parts

Stageloader Drive Assembly, 22-210

Stageloader Flyghts, 22-216

Stageloader, 22-210 (2)

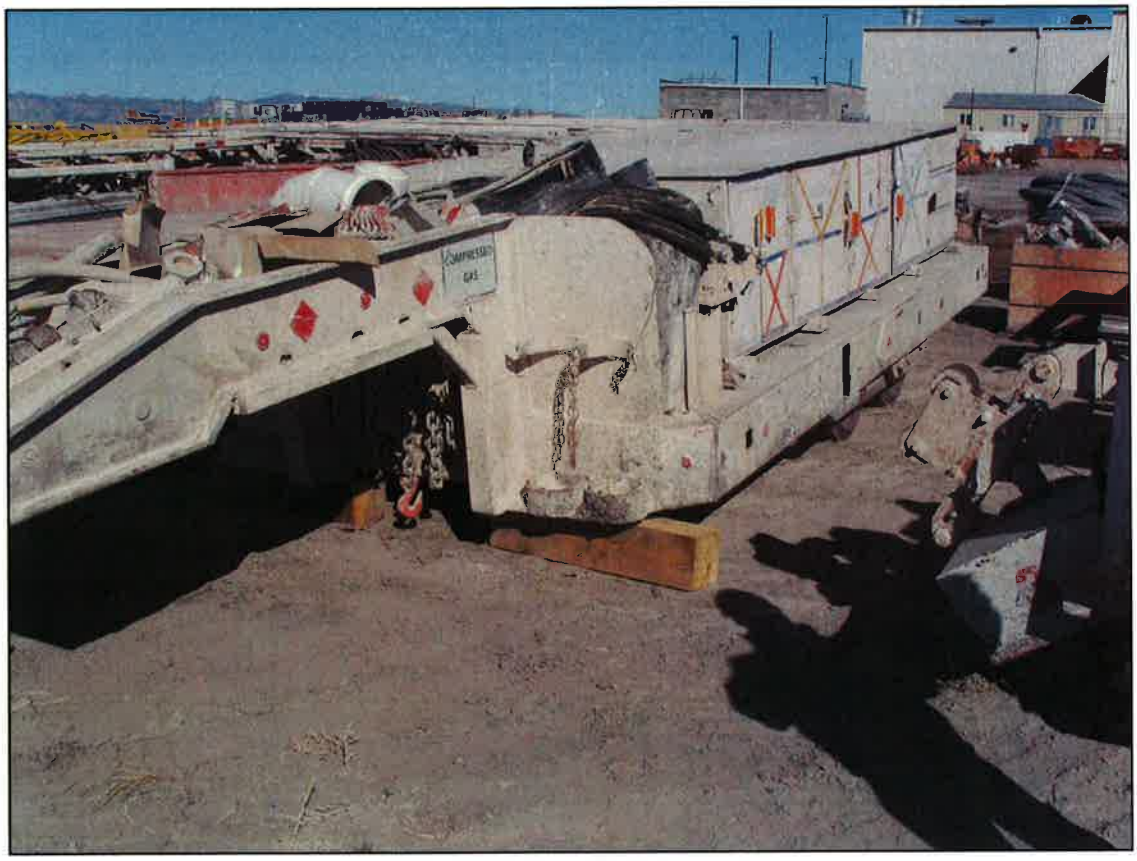
Stageloader, 22-210 (3)

Stageloader, 22-210 (4)

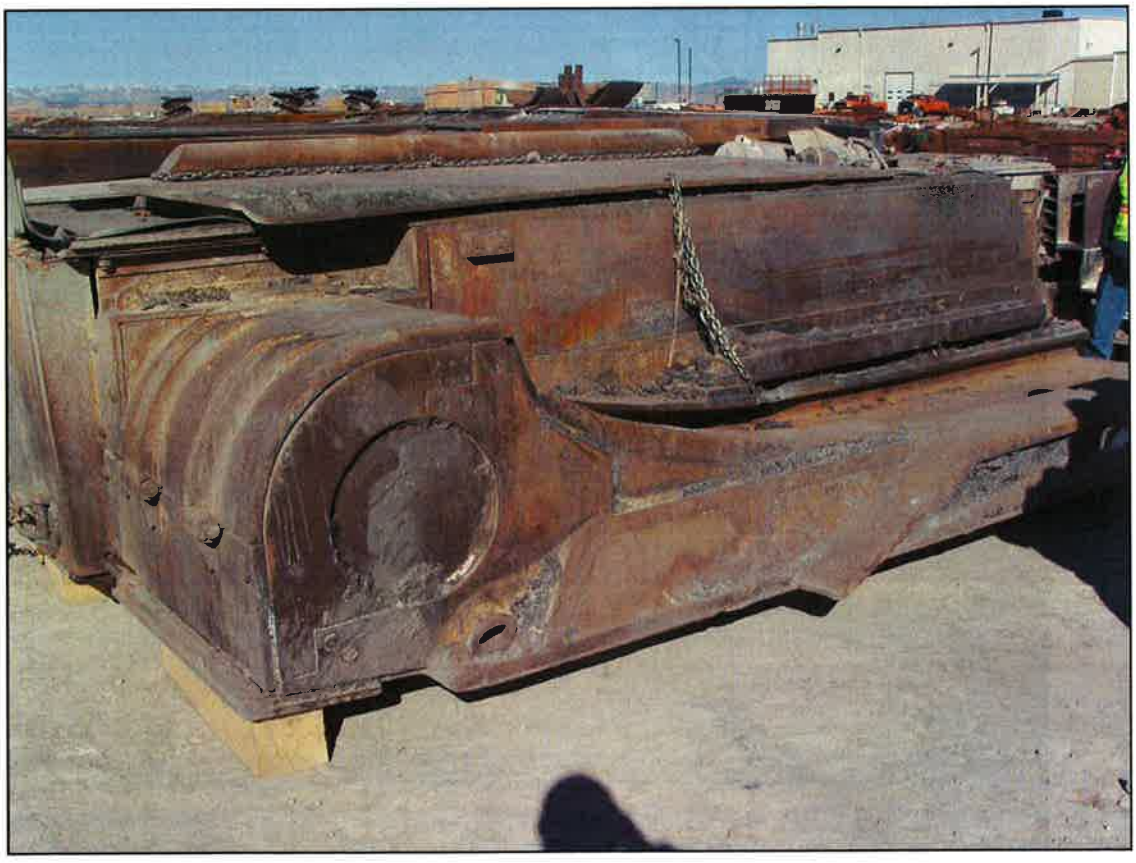
Stageloader, 22-210

Stageloader, 22-216

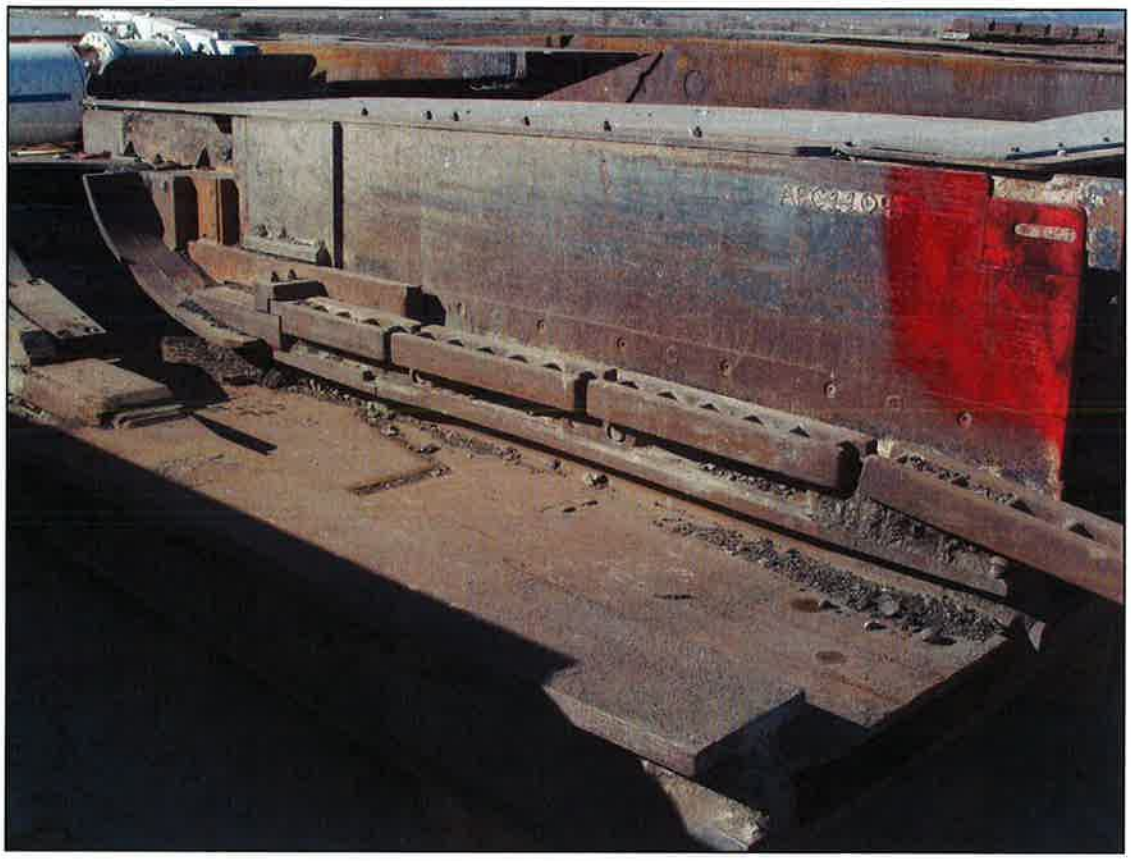
Support Skid with Tool Boxes



Support Trailer with Tool Boxes



Taildrive Assembly, 22-186



Taildrive Assembly, 22-215

Taildrive Frame, 22-215

APPRAISAL REPORT
OF
MACHINERY AND EQUIPMENT

Located at:

Joy Manufacturing
1275 E. Ridge Rd.
Price, UT 84501

Effective Date of Appraisal: February 16, 2015

PREPARED BY:

EXPERT EQUIPMENT APPRAISAL

a division of certifiedconsultinggroupLLC

3740 Smith Rd.
Nashville, IN 47448
Christopher Rials, MCMEA, SBA
Master Certified Machinery & Equipment Appraiser
Member, NEBB Institute

EXPERT EQUIPMENT APPRAISAL

a division of certifiedconsultinggroupLLC

3740 Smith Rd. - Nashville, IN 47448

Christopher Rials, MCMEA, SBA

Master Certified Machinery & Equipment Appraiser - Member, NEBB Institute

March 4, 2015

Mr. Rick Larsen
Materials/Procurement Specialist
Energy West Mining Company
PO Box 310
Huntington, UT 84528

Dear Mr. Larsen:

Per your request, we respectfully provide an Appraisal Report for certain machinery and equipment items located at Joy Manufacturing , 1275 E. Ridge Rd., Price, UT 84501.

This report has been prepared in compliance with the Uniform Standards of Professional Appraisal Practice. Fee Simple Interest has been reported on the machinery and equipment. We are reporting Fair Market Value as of the effective date of February 16, 2015. If the subject items should sell under any other scenario, such as in an Orderly Liquidation fashion or a Forced Liquidation fashion (quick sale), then different values, no doubt lesser values would be realized. Use of this report signifies your acceptance of Limiting Conditions contained in the report and the limitations outlined in the Engagement Agreement.

A summary of all information collected indicates that as of this date the estimated Fair Market Value of all assets contained in this report would be $14,255,200.

Respectfully submitted,

Digitally Signed by:
Christopher S Rials, MCMEA, SBA
Expert Equipment Appraisal
a division of certifiedconsultinggroupLLC
Master Certified Machinery and Equipment Appraiser

Table of Contents

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General Information

An appraisal is a type of investigation into the law of probabilities with respect to valuation. Through the appraiser's experience, training, and integrity, we are able to project the activities of buyers and sellers in the marketplace into an estimation of value. In reaching a conclusion, comparison of assets usually involves adjustments due to the individuality and uniqueness of each asset. Transactions are often influenced by sentiment, bias, specific needs, politics, familiarity, lack of understanding, and other conditions not considered by the impartial appraiser. The appraiser cannot lend credence to these possible factors lest he misrepresent the very reason for his profession.

An appraisal cannot be guaranteed, nor can it always be proven. The opinion of value can, however, be substantiated and final opinion is the result of a thorough professional analysis of a vast quantity of data. An appraisal must not be considered absolute but should be used as a basis of negotiations between concerned parties, whatever their interests.

The valuation process, as followed in the preparation of this report, is an orderly procedure for arriving at an estimate of value. By following this procedure the appraiser begins with a preliminary study of the problem involved and defines the basis from which the appraisal is to be made. A program is then initiated for the accumulation, analysis, and observation of data. The data called for in the preliminary study is then gathered, classified, and analyzed.

In assignments to estimate Fair Market Value, the ultimate goal of the valuation process is a supported conclusion that reflects the appraiser's study of all influences on the value of the assets being appraised. Therefore, the appraiser studies the assets from various applicable viewpoints.

Various approaches are interrelated, and each involves the gathering and analysis of sales, activity, and value data in relation to the assets being appraised. From the analysis, the appraiser derives separate indications of value for the assets being appraised. One or more approaches may be used, depending on their applicability to the particular appraisal assignment.

To complete the valuation process, the appraiser integrates the information drawn from the market research and analysis of data and from the application of appraisal techniques to form a conclusion. This conclusion may be an estimate of value or a range in which the value may fall. An effective integration depends on an appraiser's skill, experience, and judgment.

With the preceding in mind, the reader's attention is invited to the appraisal report and various exhibits which point out the facts and reasoning leading to the final estimate of value.

Summary of Salient Facts

Identity of Client	Energy West Mining Company
Intended User	Energy West Mining Company
Intended Use	Buy/Sell
Property Interest Appraised	Fee Simple
Sales History of Appraised Items	Appraiser is not aware of sales history.
Physical and Economic Property Characteristics Relative to the Assignment	The items discussed in this report are currently utilized in the particular industry as described in the industry report located in the Addenda section. The individual items are described via basic nomenclature.
Class of Property	Longwall Mining Equipment
Current Use of Property	Longwall Mining Equipment
Use of Property When Appraised	Longwall Mining Equipment
Effective Date of Appraisal	February 16, 2015
Date Report Written	March 4, 2015
Date of Inspection	February 19, 2015
Type of Value	Fair Market Value
Final Estimate of Value	$14,255,200

Scope of Work

The appraiser has been asked to provide an appraisal effective February 16, 2015 of certain machinery/equipment items located at Joy Manufacturing , 1275 E. Ridge Rd., Price, UT 84501.

It has been requested that fee simple interest be reported as an estimation of the Fair Market Value. The type of value reported has been determined by the appraiser, upon engagement by the client, to be appropriate to the client's needs. It should be noted that if these items should sell under any other scenario, such as in an Orderly Liquidation fashion or a Forced Liquidation fashion (quick sale), then different values, no doubt lesser values would be realized.

This report is identified as an Appraisal Report that is intended to comply with the reporting requirements as defined under Standards Rule 8 of the Uniform Standards of Professional Appraisal Practice (USPAP) for an Appraisal Report. As such, it presents only summary discussions of the data, reasoning, and analyses that are used in the processes to develop the Appraiser's Opinion of Value. Supporting documentation that is not provided with the report concerning data, reasoning and analyses is retained in the appraiser's file. The depth of discussion contained in this report is specific to the needs of the client and for the intended use stated within this report. Not all specific requirements are applicable to every assignment. In this assignment, not all data involving subject sales, offerings, options and listing was obtainable and verifiable, although the appraiser has made every effort to gather the data by direct contact with the various sources through telephone or e-mail. If this detailed data is not included or addressed, the data is considered to be irrelevant. Due to the large number of subject properties oftentimes appraised in a machinery/equipment appraisal, the Appraisal Report is the most commonly used report form. Appraisal Reports are accepted on a daily basis by the courts, taxing authorities, lenders, business owners, accountants, and other users of appraisal services.

The Income Approach would be purely hypothetical in this assignment. The Cost Approach and the Market Data Approach have been utilized for the final value estimate of each item or category with heavy emphasis on the Market Data Approach when possible. The appraiser, when implementing the market data approach, has endeavored to find "sold comparables." That is to say, they are similar items that have actually transferred in ownership. These comparable sales provide the best and most reliable information. However, if actual historical sales information is not available, the appraiser will oftentimes look to the current market of similar items currently for sale. This information can be useful in estimating value. In this report, a search has been made for "sold" items and items currently "for sale".

The appraiser has gathered data on the subject items from as many sources as practical, including but not limited to the original equipment manufacturer (if possible), dealers and brokers of like equipment, published catalogs, and guides of similar equipment as well as the Internet. Upon gathering data regarding new and similar models with characteristics of the subject equipment, the writer has then analyzed the data in an effort to estimate value.

After conversations with various industry professionals, including the above-mentioned sources, the appraiser endeavored to arrive at a value estimate for the subject equipment. After a value was established, this written report was then formulated to set forth the findings and conclusions

of the appraiser. An extreme effort was made to comply with the Uniform Standards of Professional Appraisal Practice in providing the final written report.

This is a report estimating value based on reported conditions. If it is the client's desire to verify the physical condition and/or needed repairs of the machinery/equipment, which is the subject of this report, the client should consult a qualified mechanic/technician. To determine actual mechanical condition is outside of the appraiser's expertise and the scope of this assignment.

This assignment has called for only the larger, more expensive items owned by the client to be appraised. It is understood that oftentimes there also exist smaller, less expensive ancillary/support items that "support" the larger items. These items, too, obviously have value but do not in and of themselves merit the time and expense of an individual valuation. Therefore, it is agreed by the client's use of this report, that if these types of items are mentioned in this report, they will be added under a separate section(s) as opposed to the larger capital items and the appraiser will only apply the Cost Approach (less depreciation) to value. The Market Data Approach will not be applied to the smaller, less significant items, due to time and cost factors required in researching smaller items. These items typically include smaller hand tools, furniture, fixtures, shelving, electronic items, i.e., computers, calculators, copiers, telephone systems, etc., and other less expensive items which are considered to "support" the items, which are the focus of this report. Industry depreciation standards have been applied with little, if any, individual description. Lot pricing is employed with these types of items.

Further, the request to the writer as to the "level of trade" needed was implemented. That is to say, the equipment may be valued in place, in use, and as part of a going concern entity; in place, not in use; in place to be removed; not in place, etc. Many types of equipment items are labor intensive in their millwright, installation, or removal.

This evaluation sets forth the findings and conclusions of the writer, and is based upon an investigation of conditions affecting value, and is subject to the Statement of Limiting Conditions and Definitions. Without reading the Statement of Limiting Conditions and Definitions, the report cannot be fully understood.

The scope of this assignment as explained above has been requested and/or agreed to by the client along with the conditions as stated in the Engagement Agreement.

Degree to Which the Property is Inspected or Identified

An onsite visit was conducted to view the equipment on February 19, 2015. A visual inspection was made to verify that the equipment exists and is working. The equipment was observed and is assumed to be in good working order, though a detailed mechanical inspection was not made. Overall, the equipment visually appears to be in Fair Condition.

Extent of Research Into Physical or Economic Factors That Could Affect Property

The appraiser has had a number of conversations with manufacturers and suppliers of the subject items. The appraiser has not had access to the profit and loss statements or tax returns of Joy Manufacturing . It is assumed the business is profitable and the machinery/equipment, which is the subject of this report, will remain in place and in use well into the future. While the national and global economies are in a recession according to many as of this writing, it is nevertheless the assumption of the writer that the business will continue in a profitable way.

The purpose of this report is not to comment on profit or loss of the subject business, and if there is concern in those areas, the reader or user of this report should conduct further studies.

Extent of Data Research

The appraiser, in conversations with all listed sources, described to the best of his ability the characteristics of the subject equipment. It is understood equipment items may be purchased/sold with a variety of peripheral attachments, support items, and other amenities, which could affect value. It is not always possible to know of such factors that may or may not exist. Therefore, it is assumed the subject equipment does in fact have basic qualities needed for operation and would have an expected amount of peripheral amenities associated with the subject item.

All information provided the appraiser is believed to be accurate but not warranted or guaranteed.

Type and Extent of Analysis Applied in Arriving at Opinions or Conclusions

Conversations were held with manufacturers and dealers providing similar machinery and equipment items. After conversations with manufacturers, dealers, and industry professionals, the appraiser formulated an opinion as to values and market conditions.

Depth of Onsite Inspection

The appraiser viewed the machinery and equipment, which is the subject of this report, unless otherwise noted. The equipment was verified to be in place and working or capable of working, although a detailed mechanical inspection was not made. The equipment appears to be in an overall Fair Condition and was photographed when possible.

Appropriate Market or Market Level

The most appropriate market or market level would be for this equipment to be utilized as part of a going concern business operation. Obviously, all machinery and equipment items are best

utilized with their income producing capabilities functioning.

Intended User

The intended user of this report is Energy West Mining Company.

Confidentiality and Privacy

The appraiser will maintain the conformity and privacy of customer information obtained in the course of this assignment in compliance with USPAP and Regulation Practices, Title V of Gramm, Leach, Bliley Financial Modernization Act.

We do not sell information about our client to others. We protect the security and confidential information about the client. We share information outside of our company only when necessary to administer products or services we provide when we have your permission, or when required or permitted by law.

Overall Condition of Equipment

It is understood the subject equipment is in Fair Condition except as noted, and used on a daily basis. Appearance is Fair Condition unless otherwise noted.

Intended Use

It is understood this report is to be used for this purpose and no other:
Buy/Sell.

Property Interest Appraised

It is understood that the property interest appraised is in Fee Simple Interest.

Statement of Limiting Conditions - Tangible Assets

1. All facts and data set forth in this report are true and correct to the best of the appraiser's knowledge.

2. The fee for this report is not contingent upon the values reported. There have been no guarantees associated with this fee and no liability can be intimated or assumed in any manner.

3. Since this report has been purchased by the addressee, it is assumed by the appraiser that it is to be used by the addressee in determination of value at that point in time. Use of this report by others should be done so with the understanding that no risk or guarantees have been purchased by the owner of the report nor through the fee paid to the appraiser. The appraiser reserves the right to recall all copies of this report to correct any omission or error.

4. Physical condition in most instances has been determined by observation or indication by others. Any unknown conditions existing at the time of inspection could alter the value. No responsibility is assumed for latent defects of any nature whatsoever which may affect value, nor for any expertise required to disclose such conditions.

5. No consideration has been given to liens or encumbrances, which may be against the property.

6. No investigation of legal fee or title to the property has been made and the claim to the property has been assumed to be valid.

7. Neither the appraiser nor any officer or employee of the appraiser's company has any financial interest in the property appraised, unless specifically noted.

8. No additional values or appraisals have been made in regard to such intangibles as patents, rights to manufacture, trademarks, goodwill, going concern value, etc.

9. This report has been prepared in conformity with the Principles of Good Practice and Code of Ethics of NEBB Institute.

10. Other limitations, if any, are clearly defined and individually set out at that point related to the subject.

11. Neither all nor any part of the contents of this report, or copy thereof, shall be reproduced for any purpose other than stated in the report, nor shall it be made available to the media, another appraiser or anyone else without the written consent of the appraiser.

12. For all appraisals subject to satisfactory completion, repairs, or alterations, this report and value conclusions are contingent upon completion of the improvements in a workmanlike manner.

13. Information, estimates and opinions furnished the appraiser and contained in this report

were obtained from sources considered reliable and believed to be true and correct; however, no responsibility for the accuracy of such items furnished to the appraiser can be assumed by the appraiser. No liability or responsibility is expressed for results from actions taken by anyone as a result of this report. Further, there is no accountability, obligation, or liability to any third party.

14. Matters of legal nature or tax consequences have not necessarily been considered in this report. The reader should consult a competent attorney or CPA for information and opinions in those areas.

15. In many instances, the appraiser is given information regarding machinery and equipment concerning repairs, accessories, condition, etc., which may or may not be verifiable by the appraiser for a variety of reasons. In such cases, the appraiser must rely on information provided him in searching for comparative data. The appraiser disclaims any responsibility if given erroneous information by any party.

16. Machinery and equipment appraisers are called on for price evaluation and verification for equipment from many different fields of business. It is impossible for any appraiser to be an authority in every field of machinery/equipment. Therefore, the appraiser has endeavored to use basic sound, accepted methodologies in any assignment (i.e., Cost New Less Depreciation and Market Data Approaches). Conversations with those dealing daily in a specific field were conducted, and all final evaluations are founded on prudence and best effort on the part of the appraiser. "Conclusion of opinion of value" is arrived at from years of experience in the sale and appraisal of machinery, equipment, businesses, and commercial properties. The final form of this report is made possible by omitting many details used in estimating, yet not considered essential to the report.

17. The appraiser has endeavored to use due diligence in all market comparisons. If possible, three comparisons of similar items sold usually provide substance for final value determination. However, at times it is not possible to find any direct sales comparisons that have actually sold. In these cases, the appraiser has relied heavily on comments and testimony from sources considered reliable (dealers, auctioneers, manufacturers, wholesaler, etc.) in arriving at the final value estimate.

18. The writer has based his opinion on certain assumptions that have been presented to him. If these basic assumptions should change for any reason, the final valuation could quite likely change. The appraiser reserves the right to make any adjustments considered necessary as additional or more reliable data becomes available.

19. If the request has been for the writer to accept values given by the principals, i.e., hard assets, fixtures, equipment, inventory, etc., then the assignment becomes hypothetical in nature unless the writer has specifically certified the values of such assets in the report.

20. Nomenclature and identification of tangible assets are assumed by the writer to be accurate, but no guarantee is made in this regard.

21. An appraisal is an estimate of value. When the amount is considered a reasonable and proper value under the concept of a definition, then it is applied. For this reason, the

value is, in many cases, a rounded number. As stated in *Engineering Valuation and Depreciation*, a textbook published by Iowa State University Press of Ames, Iowa, "All values are of the nature of forecast of events and are subject to the uncertainties of all prophecies."

22. In most cases, equipment is itemized, although certain areas require a group estimate, in which case the listings are shown in the quantity column as "lot." This is usually applied in nominal value areas that require general descriptions for applications elsewhere, or in areas where difficulty of access for total description would have required additional time not justified by the items being valued.

23. It is assumed that all equipment has standard features commensurate with its normal operation. For instance, machine tools would include but not be limited to: belt guards, foot pedals, magnetic or standard starters, switch-gear, safety equipment, wiring, piping and controls, electrical, pneumatic or hydraulic systems, or other peripheral items considered standard for operating the indicated model or type of equipment. This type of detailed listing is not described for each machine due to repetition, time, cost, and description length within the listing. An attempt is made, however, to indicate any non-standard features at an appropriate point within the study.

24. The valuation concept used in this report is one chosen by the client and should not be considered a recommendation by the appraiser as to what might result in any later application of the concept. Concept probability and/or feasibility are beyond the scope of the appraisal. The user of the report is to determine the probability of occurrence. The appraisal is purchased in order to allow an opinion of value under any assumed set of circumstances, as requested and mutually agreed upon by the client and the appraiser.

25. Description of items made a part of this report is believed correct. Any errors or omissions were unintentional and should not affect the value assignment. Description is made with the attempt of allowing reasonable identification although it may not allow specific item identification in all cases unless company number tagging is utilized. Examples of this would be in such areas as cabinets, shelving, file cabinets, various hand tools, and unserialized equipment or equipment without justification for serial number search due to associated value and/or time consideration. In some cases, identification numbers cannot be found.

26. In some cases, an appraiser may indicate that certain equipment was observed in operation. This qualification is applicable only to specific pieces of equipment and should not be construed that other equipment was not operable or under operation at the time of inspection. This note could become extremely important in the future but is considered more of note "in passing" at the time of the on-site evaluation.

27. The subject equipment may or may not conform to OSHA standards (Occupational Safety & Health Administration). The sole responsibility for conforming rests with the owner of the subject equipment and may not necessarily affect the final estimate of value reported herein.

28. Any controversy arising out of or relating to this report shall be settled by arbitration in

accordance with the rules, then in effect, of the American Arbitration Association. In the unlikely event that differences concerning our services or fees should arise, that are not resolved by mutual agreement, our liability for this engagement will be limited to a return of the fees we have received for this engagement.

29. Since the conclusions by the appraiser are based upon judgments, isolation of any single element as the sole basis of comparison to the whole appraisal may be inaccurate.

30. As stated, this is a report estimating value based on "reported" condition. If it is the client's desire to verify physical condition and/or needed repair of the items, which are the subject of this report, the client should consult a qualified mechanic/technician. To determine actual mechanical condition is outside of the appraiser's expertise and the scope of this assignment. If the condition of the equipment is other than as reported to the appraiser, the estimated value could be unreliable. The appraiser reserves the right to change the value estimate if additional information comes forward as to condition or other factors, which could affect value.

31. This is an Appraisal Report. Additional information may be necessary and will be provided to qualified requests by the writer.

32. It should be noted that the term "certified," or "certified appraisal" as used in this report refers to certification and testing from various recognized appraisal and consulting societies, organizations, or institutes.

33. This report is not to be used for insurance purposes unless specifically stated to do so.

Definitions of Condition

Very Good (VG)

This term describes an item of equipment in excellent condition capable of being used to its fully specified utilization for its designated purpose without being modified and not requiring any repairs or abnormal maintenance at the time of inspection or within the foreseeable future.

Good Condition (GC)

This term describes those items of equipment which have been modified or repaired and are being used at or near their fully specified utilization but the effects of age and/or utilization indicate that some minor repairs may have to be made or that the item may have to be used to some slightly lesser degree than its fully specified utilization in the foreseeable future.

Fair Condition (FC)

This term describes those items of equipment which are being used at some point below their fully specified utilization because of the effects of age and/or application and which require general repairs and some replacement of minor elements in the foreseeable future to raise their level of utilization to or near their original specifications.

Poor Condition (PC)

This term is used to describe those items of equipment, which can only be used at some point well below their fully specified utilization, and it is not possible to realize full capability in their current condition without extensive repairs and/or replacement of major elements in the very near future.

Scrap Condition (X)

This term is used to describe those items of equipment which are no longer serviceable and which cannot be utilized to any practical degree regardless of the extent of the repairs or modifications to which they may be subjected. This condition applies to items of equipment which have been used for 100% of their useful life or which are 100% technologically or functionally obsolescent.

Fair Market Value Definition

Fair Market Value is the estimated amount, expressed in terms of money, that may reasonably be expected for a property in an exchange between a willing buyer and a willing seller, with equity to both, neither under any compulsion to buy or sell, and both fully aware of all relevant facts, as of a specific date.

As defined by Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery & Technical Assets, Third Edition, by the American Society of Appraisers.

Machinery and Equipment Definitions

The following values are defined in the publication *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery & Technical Assets*, Third Edition, by the American Society of Appraisers.

1. **Fair Market Value** is an opinion expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having a reasonable knowledge of relevant facts, as of a specific date.

2. **Fair Market Value - Removed** is an opinion, expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, considering removal of the property to another location, as of a specific date.

3. **Fair Market Value in Continued Use** is an opinion, expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, as of a specific date and assuming the business earnings support the value reported, without verification.

4. **Fair Market Value - Installed** is an opinion, expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts, considering market conditions for the asset being valued, independent of earnings generated by the business in which the property is or will be installed, as of a specific date.

5. **Orderly Liquidation Value** is an opinion of the gross amount, expressed in terms of money, that typically could be realized from a liquidation sale, given a reasonable period of time to find a purchaser (or purchasers), with the seller being compelled to sell on an as-is, where-is basis, as of a specific date.

6. **Forced Liquidation Value** is an opinion of the gross amount, expressed in terms of money, that typically could be realized from a properly advertised and conducted public auction, with the seller being compelled to sell with a sense of immediacy on an as-is, where-is basis as of a specific date.

7. **Liquidation Value in Place** is an opinion of the gross amount, expressed in terms of money, that typically could be realized from a properly advertised transaction, with the seller being compelled to sell, as of a specific date, for a failed, non-operating facility, assuming that the entire facility is sold intact.

8. **Salvage Value** is an opinion of the amount, expressed in terms of money, that may be expected for the whole property or a component of the whole property that is retired from service for possible use, as of a specific date.

9. **Scrap Value** is an opinion of the amount, expressed in terms of money, that could be realized for the property if it were sold for its material content, not for a productive use, as of a specific date.

10. **Insurance Cost New** is the replacement or reproduction cost new as defined in the insurance policy less the cost new of the items specifically excluded in the policy, as of a specific date.

11. **Insurable Value Depreciated** is the insurance replacement or reproduction cost new less accrued depreciation considered for insurance purposes, as defined in the insurance policy or other agreements, as of a specific date.

Methods of Valuation

Appraisal methods employed in arriving at the final conclusion as to value on all of the equipment in this section include the Cost Approach Analysis and the Market Data Approach Analysis. At times, the Income Approach Analysis is used. However, on equipment of this type, it would be deemed unadvisable, as it is the result of a purely hypothetical value.

Cost Approach Analysis

The Cost Approach Analysis is defined as a "method in which the value of a property is derived by estimating the replacement cost of the improvements and deducting therefrom the estimated depreciation." There are three primary forms of depreciation: physical, functional and economic. Physical depreciation is often curable and may involve cosmetic appearance (but, in fact, could go deeper). Functional depreciation means that the machinery has had a loss in productivity due to wear and tear. Economic depreciation (sometimes referred to as External Depreciation) occurs outside of the subject property which results in a loss of value. In determining depreciation, the appraiser has used his judgment and prudence in determining the depreciation factor which could be a combination of all three forms described in total. Experience with this type of equipment has proven the use of a formula, which is as follows:

$$\text{Fair Market Value} = \frac{\text{Remaining Life}}{\text{Normal Life}} \text{ X Cost New}$$

This formula again has proven to be effective on numerous occasions.

The Market Data Approach

This approach is an appraisal technique in which the market value estimate is predicated upon prices being paid in actual market transactions and current listings, the former fixing the lower limit of value in a static or advancing market and fixing the higher limit of value in a declining market; and the latter fixing the higher limit in any market. It is a process of correlation and analysis of similar recently sold properties. The reliability of this technique is dependent upon:

1. The degree of comparability of each property with the property under appraisal;
2. The time of the sale;
3. The verification of the sale data;
4. The absence of unusual conditions affecting the sale.

The Income Approach

The Income Approach to value is used only when solid data involving income and expenses for a particular item can be established. It is considered hypothetical in most situations involving machinery and equipment, and though while considered, has not been applied in the final value estimate.

Reasoning that Supports the Analysis, Opinions and Conclusions

In an effort to provide Cost Less Depreciation Analysis, the appraiser has used, when possible, the actual manufacturer (or dealers) of the subject equipment. At times, new replacement models are offered when the subject model is no longer being made. When this condition exists, the appraiser endeavors to correlate and adjust for various factors involved. If the actual manufacturer of the equipment is not available or cannot be reached for any reason, then dealers or distributors are contacted when possible for verification of similar items with similar utility. Sometimes the manufacturer, distributors, and dealers can provide information for the Market Data Approach as well, since they are oftentimes aware of equipment on the used market, even selling similar equipment at times. A search is also made of similar items in the general market place that have sold and are presently offered for sale. Unless specifically stated, the Income Approach has not been applied in this assignment for reasons mentioned above.

Sources Contacted

The following sources were contacted in this assignment:

* Underground Coal
* Hauhinco
* Ebay
* Line Power
* Sun Machinery
* CAT
* Intermountain Electronics
* Joy Manufacturing / Joy Global
* Petitto Mine Equipment Co.
* ThomasNet.com

Results of Analysis of Subject Sales, Offers, Options and Listings

Due to the nature of the equipment and the lack of accessible sold and for sale comparables, the cost approach has been applied.

Additional Considerations

Title of Appraised Equipment

It is understood the items listed in this report are owned and belong to Joy Manufacturing , 1275 E. Ridge Rd., Price, UT 84501. The writer makes no guarantee, however, concerning ownership or clear title.

Measurable Marketplace

There are distinct levels of trade and each may have its own market value. The writer is under the opinion that other companies similar to Joy Manufacturing , who provide similar products and services, would be the most appropriate market.

Market Conditions

Economic Summary – 4th Quarter 2014

U.S. economic growth slowed significantly in the fourth quarter of 2014, as weak business spending, a growing trade deficit, and declining federal government spending offset a surge in consumer spending. The fourth-quarter GDP growth rate of 2.6% was below economists' expectations of 3.0% in a Bloomberg survey and came on the heels of a strong third quarter where GDP grew at its fastest pace in 11 years. Economists surveyed by Bloomberg and Reuters think the slowdown in the fourth quarter will be short-lived, pointing to the impact of lower gas prices and strong consumer spending.

Bloomberg also noted the strength of domestic demand should more than offset deteriorating economies overseas. A gauge of underlying demand, which excludes trade, inventories, and government, increased at a 3.9% pace in the fourth quarter, compared to the 4.1% rate in the third. The analysts surveyed said the data indicated U.S. fundamentals were strong enough to cushion the blow to economic growth from weakening economies overseas.

Some news that boded well for consumer spending was a notable uptick in consumer confidence. The Conference Board reported that its Consumer Confidence Index increased in December, and consumers' perceptions of current conditions improved to its highest level since February 2008. The Thomson Reuters/University of Michigan's Consumer Sentiment Index also rose in December, reaching its highest reading since July 2007. The report found that consumers held the most favorable attitudes toward the long-term prospects for the economy than at any other time in the past 10 years.

Moreover, the outlook also improved for small business. The National Federation of Independent Business reported that the Small Business Optimism Index rose in December to its highest reading since October 2006. Gains in the components that comprise the index were widespread. Further, The Wells Fargo/Gallup Small Business Index climbed to its highest

reading in more than six years. Strong growth came from the component that measures small-business owners' future expectations.

Job growth continued to be strong in the fourth quarter, with employment gains now exceeding 200,000 jobs a month for 11 straight months, the longest stretch since March 1995. The unemployment rate also fell to a six-and-a-half-year low, though some of the decline was attributable to people leaving the workforce. Total employment rose by 2.95 million in 2014, the most in any calendar year since 1999.

The Institute for Supply Management's manufacturing-sector index slipped in December for the second consecutive month. Regardless, the data indicated that the manufacturing sector expanded for the 19th consecutive month and the overall economy grew for the 67th consecutive month.

The Institute for Supply Management's index for the services sector fell in December for the third time in four months. Despite the index's retreat, the December index reading indicated that the services sector has now grown for the 59th consecutive month.

The Federal Reserve reported that industrial production fell in December but grew at an annual rate of 5.6% in the fourth quarter. Increases in manufacturing output and mining output were tempered by a marked drop in utilities, as warmer-than-usual temperatures reduced the demand for heating in December.

The Federal Reserve maintained its decision to not raise interest during the fourth quarter, saying it would remain patient. The Federal Reserve also determined that the time had come to end its asset purchase program since there had been a substantial improvement in the outlook for the labor market since its inception.

Stocks saw strong returns in the fourth quarter, though the market was volatile. Both the Dow Jones Industrial Average and the S&P 500 endured their biggest losses in over two years, then went on to reach new record highs shortly before the end of the quarter. The Nasdaq reached its best level since the tech bubble of the late 1990s. The S&P 500 and the Dow Jones Industrial Average have now experienced a six-year rally, and the S&P 500 is now up over 230% since the bear-market low on March 9, 2009.

Both the Consumer Price Index and the Producer Price Index fell in December. Consumer prices experienced their sharpest drop since December 2008, while producer prices had their largest fall since October 2011. A sharp decline in the price of gas brought both indexes down.

Housing starts advanced in December, while building permits authorized retreated. Housing starts and building permits authorized remain above their levels from one year ago.

The National Association of Home Builders/Wells Fargo Housing Market Index edged down in December but has remained within a stable range over the past six months. The index continued to remain at a level indicating more builders view sales conditions as good, rather than poor.

The National Association of Realtors reported that existing-home sales rose in December, despite tight inventory conditions. Median home prices for 2014 rose to their highest level since 2007, as year-over-year price gains have continued for 34 consecutive months. The 30-year, conventional, fixed-rate mortgage fell to 3.86% in December, its lowest level since May 2013. The National Association of Realtors' Realtors Confidence Index for current conditions experienced a broad uptick in December, while the reading for future conditions improved significantly.

Estimated Exposure Time

Exposure time is the estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. This is a retrospective opinion based on an analysis of past events assuming a competitive and open market. The appraiser believes that if properly exposed to the open market the subject item(s) would have sold in approximately 180 days.

Extraordinary Assumptions and/or Hypothetical Conditions

An Extraordinary Assumption is an assumption directly related to a specific assignment, as of the effective date of the assignment results, which if found to be false could alter the appraiser's opinions or conclusions. Extraordinary Assumptions presume as fact otherwise uncertain information about physical, legal or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.

A hypothetical condition is a condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but used for purposes of analysis. Hypothetical conditions are contrary to known facts about physical, legal or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.

1. It is believed there are no hidden defects which are not discernible from a visual inspection and which could affect value.

2. Issues resulting from the above condition could affect the assignment results.

Comments Regarding Capital Equipment

The appraiser has attempted to analyze all subject sales comparisons, offers, options, and listings in accordance with USPAP Standards Rule 7-5. Data found was limited and in some cases unobtainable. The appraiser has had conversations with dealers, manufacturers, brokers, and others. The Internet has also been used, all in an effort to determine detail and characteristics of the appraised item(s). Data that was found has been weighted in the final value estimate or otherwise considered irrelevant.

Item #	Manufacturer	SAP Asset #	Serial Number	EW Asset #	Cap. Date	Description	Condition/ Useful Life in Years	Item Count	Fair Market Value per Item	Total Fair Market Value (FMV)
Shields										
Item #1	Joy Manufacturing	400000206488, 6503	N/A	21-226	12/6/2010 4/18/2011	Joy Shields (two legged, 1,170 ton capacity, reconstructed)	Fair / 10 Years	130 Each	$52,000	**$6,760,000**
Shearers										
Item #2	Joy Manufacturing	400000206489	LWS613D	22-223	12/06/10	Joy 7 LS with dual 72" diameter cutting drums and lump breaker (reconstructed)	Fair / 10 Years	1 Each	$670,000	**$670,000**
Item #3	Joy Manufacturing	N/A	LWS613	22-212	~2010	Joy Shearer (lease - Joy 7 LS)	Good / 15 Years	1 Each	$925,000	**$925,000**
Armored Face Conveyors										
Item #4	Joy Manufacturing	400000206490	N/A	22-224	12/06/10	Joy AFC - #1 (2 x 600 hp x 940 millimeterm - reconstructed)	Fair / 10 Years	116 Each	$6,100	**$707,600**
Item #5	Joy Manufacturing	400000206510	N/A	22-225	04/18/11	Joy AFC - #2 (2 x 600 hp x 940 millimeterm - reconstructed)	Fair / 10 Years	116 Each	$6,100	**$707,600**
Headgate & Tailgate Drives										
Item #6	Joy Manufacturing	400000206506	HD1109	22-214	04/18/11	Joy Headgate Drive (2 x 250 hp x 1,154 millimeter)	Fair / 10 Years	1 Each	$313,500	**$313,500**
Item #7	Joy Manufacturing	400000206507	TD1109	22-215	04/18/11	Joy Tailgate Drive	Fair / 10 Years	1 Each	$408,000	**$408,000**
Item #8	Joy Manufacturing	N/A	N/A	22-185	~1998	Joy Headgate Drive	Fair / 10 Years	1 Each	$76,500	**$76,500**
Item #9	Joy Manufacturing	N/A	N/A	22-186	~1998	Joy Tailgate Drive	Fair / 10 Years	1 Each	$67,000	**$67,000**
Stage Loaders										
Item #10	Joy Manufacturing	400000206504	SL1109	22-216	04/18/11	Joy Stage Loader	Good / 15 Years	1 Each	$560,000	**$560,000**

Item #11	Joy Manufacturing	N/A	SL1083	22-210	~1998	Joy Stage Loader	Fair / 10 Years	1 Each	$250,000	**$250,000**
Crushers										
Item #12	Joy Manufacturing	400000206509	CR1109	22-217	04/18/11	Joy Crusher	Good 15 Years	1 Each	$233,000	**$233,000**
Item #13	Joy Manufacturing	N/A	CR1083	22-209	~1998	Joy Crusher	Fair / 10 Years	1 Each	$98,000	**$98,000**
Emulsion Equipment										
Item #14	Hauhinco	400000206031	N/A	22-211	03/30/06	Emulsion Pump and Control System (Hauhinco). 950v. 108 gpm, Angel Fire Supression System (rebuilt)	Fair / 10 Years	1 Each	$90,000	**$90,000**
Item #15	Hauhinco	400000206511	97201	22-222	04/18/11	Emulsion System Assembly (controller/tan/skid - Hauhinco)	Fair / 10 Years	1 Lot	$148,000	**$148,000**
Item #16	Hauhinco	400000206513	70	22-219	04/18/11	Emulsion System Pump - #1 (Hauhinco)	Fair / 10 Years	1 Each	$47,000	**$47,000**
Item #17	Hauhinco	400000206514	71	22-220	04/18/11	Emulsion System Pump - #2 (Hauhinco)	Fair / 10 Years	1 Each	$47,000	**$47,000**
Item #18	Hauhinco	400000206515	72	22-221	04/18/11	Emulsion System Pump - #3 (Hauhinco)	Fair / 10 Years	1 Each	$47,000	**$47,000**
Monorail Systems										
Item #19	Westfalia	400000205156	N/A	22-160	12/31/93	Monorail Cable Handling Device (Westfalia)	Fair / 10 Years	1 Each	$69,000	**$69,000**
Item #20	Swanson	400000206563	N/A	22-227	01/30/12	Monorail System - #1	Good / 15 Years	1 System	$195,000	**$195,000**
Item #21	Scharf	400000206593	N/A	22-228	06/26/12	Monorail System - #2 (Scharf)	Good / 15 Years	1 System	$195,000	**$195,000**
Scrubber Systems										
Item #22	Spendrup Fan Co.	400000205741	4145	19-039	04/05/02	Scrubber System (Spendrup)	Fair / 10 Years	1 System	$16,500	**$16,500**
Item #23	Spendrup Fan Co.	400000205742	4146	19-040	04/05/02	Scrubber System (Spendrup)	Fair / 10 Years	1 System	$16,500	**$16,500**

Communication Equipment										
Item #24	Joy Manufacturing	400000206491	N/A	22-000	12/06/10	Communication System (reconstructed - Joy Global)	Good / 15 Years	1 System	$13,000	**$13,000**
Tailpieces										
Item #25	Joy Manufacturing	400000206508	BT1109	08-735	04/18/11	Crawler-Mounted Tailpiece (Joy-BT-1109)	Fair / 10 Years	1 Each	$205,000	**$205,000**
Item #26	Long Airdox Co.	400000205449	64-223	08-703	12/31/97	Crawler-Mounted Tailpiece (Long Airdox\LUA 00565)	Fair / 10 Years	1 Each	$138,000	**$138,000**
Electrical Equipment										
Item #27	Intermountain Electronics	400000206512	P0331A	06-584	04/18/11	Electrical Power Center #1 (reconstructed - Intermountain Electronics)	Fair / 10 Years	1 Each	$83,000	**$83,000**
Item #28	Intermountain Electronics	400000206516	P0346A	06-585	04/18/11	Electrical Power Center #2 (reconstructed - Intermountain Electronics)	Fair / 10 Years	1 Each	$83,000	**$83,000**
Item #29	Line Power	400000206517	P0331B	22-226	04/18/11	Electrical Master Control (RS20S)	Fair / 10 Years	1 Lot	$31,500	**$31,500**
Item #30	Line Power	400000206492	P0346B	22-218	12/06/10	Electrical Master Control (RS20S)	Fair / 10 Years	1 Lot	$31,500	**$31,500**
Chain Containers										
Item #31	N/A	400000204709	N/A	22-102	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #32	N/A	400000204710	N/A	22-103	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #33	N/A	400000204711	N/A	22-104	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #34	N/A	400000204712	N/A	22-105	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #35	N/A	400000204713	N/A	22-106	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**

Item #36	N/A	400000204714	N/A	22-107	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #37	N/A	400000204715	N/A	22-108	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #38	N/A	400000204716	N/A	22-109	12/31/87	Chain Containers	Fair / 10 Years	1 Each	$1,500	**$1,500**
Item #39	Dale Mining Co.	400000204812	N/A	22-995	12/31/89	Chain Containers (Dale Mining Co.)	Fair / 10 Years	1 Each	$1,500	**$1,500**
Other Equipment										
Item #40	N/A	400000205519			12/31/98	Support Transport Trailer	Fair / 10 Years	1 Each	$1,000	**$1,000**
Item #41	N/A	400000205519			12/31/98	Support Transport Trailer	Fair / 10 Years	1 Each	$1,000	**$1,000**
Item #42	Petitto Mine Equipment, Inc.	400000204867	906001	23-108	12/31/1990	Shield Retriever (Petitto04641)	Good / 15 Years	1 Each	$160,000	**$160,000**
Item #43	Petitto Mine Equipment, Inc.	400000205714	15228	22-203	12/31/2010	Shield Retriever Electric (Petitto-1150 R))	Good / 15 Years	1 Each	$287,500	**$287,500**
Item #44	Sullair	400000204964	003-83572	14-074	12/31/1991	Skid-Mounted Rotary Air Compressor (Sullair-580CFM-7734)	Fair / 10 Years	1 Each	$20,000	**$20,000**

*** This estimate assumes all items receive periodic maintenance according to instructions of original manufacturing companies (or their successors) and by use of replacement components (new, used, remanufactured, or reverse-engineered) available either from those companies or from alternative suppliers in the aftermarket.**

	Fair Market Value
Estimated Market Value Totals For:	**$ 13,715,200**

Shop Support, Ancillary & Inventory Items

In addition to the capital equipment of the previous section, there also exist a number of shop and ancillary items and inventory, which are of supporting nature. They are included at the request of the client as they do have value. These items are valued using industry depreciation standards, historical metrics, prudence, and experience (Cost Less Depreciation Approach). Items such as the subject are typically valued in bulk and include but are not limited to: (See attached list in addenda section.)

Est. Fair Market Value: $540,000

Final Value Summary and Reconciliation

Based on the information supplied to the appraiser, using due diligence and discussions with individuals who sell new and used similar equipment, the appraiser has used a combination of the Cost Less Depreciation Approach and the Market Data Approach for each capital equipment item with a primary emphasis on the Market Data Approach when possible. If good, reliable, market data did not exist or was unclear, the Cost Approach was implemented. All data used has been retained in the appraiser's work file as required in an Appraisal Report.

For item numbers: None
the Cost Less Depreciation Approach was considered. However, the Market Data Approach was weighted as being more appropriate in establishing value as significant comparable data was available

For item numbers: 1-44
the Market Data Approach was considered. However, the Cost Less Depreciation Approach was weighted as being more appropriate in establishing value as significant data was unavailable or unverifiable.

For item numbers: None
the Cost Less Depreciation and the Market Data Approaches were considered. However, the Income Approach was weighted as being more appropriate in establishing value as income and expense records could be studied.

The total estimated Fair Market Value (FMV) for the subject items is as follows:

		FMV
Capital Equipment Items	$	13,715,200
Shop Support and Ancillary Items	$	540,000
Total:	$	14,255,200

Appraiser's Certificate

I certify to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial and unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
4. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
5. My engagement in this assignment was not contingent upon developing or reporting pre-determined results.
6. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
7. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
8. I have made a personal inspection of the property that is the subject of this report.
9. Justin Bazzle, Data Collector provided significant personal property appraisal assistance to the person signing this certification.
10. Because of my training as an appraiser and my experience in numerous business transactions, I am qualified to perform this assignment.
11. I have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of the work under review, within the three-year period immediately preceding acceptance of this assignment.

Non-Discrimination

In arriving at the estimated reasonable value, the writer has not been improperly influenced in any manner by the race, religion, or national origin of any person.

Certification and Re-Certification

Christopher Rials, MCMEA, CSBA, is in compliance with the NEBB Institute certification or re-certification program.

Digitally Signed by:
Christopher S Rials, MCMEA, SBA
Expert Equipment Appraisal
a division of certifiedconsultinggroupLLC
Master Certified Machinery and Equipment Appraiser

Appraiser's Qualifications
Christopher Rials, MCMEA, SBA

Christopher Rials holds a National Master Certification in Machinery and Equipment Appraisal, by the prestigious NEBB Institute (National Equipment and Business Builders), as well as an SBA Certification as a Senior Business Analyst by the International Society of Business Analysts (ISBA). He also served as CEO for Call Insights, Inc. which is a full scale nationwide answering service serving over 100,000 homes in the multifamily industry. In addition, Mr. Rials served in a consulting capacity to three other companies ensuring that they performed at their highest levels year after year. Mr. Rials has been performing Machinery and Equipment appraisals across the nation for over 4 years and acquired his Master Certification in this field in March of 2013. Our parent organization has been in business for over 30 years doing Business Brokering, Business Valuations, and Business Appraisals.

As an ongoing member of the NEBB institute, Mr. Rials continues to meet the certification requirements to ensure he is up to date on all of the trends affecting machinery and equipment throughout the national and international markets. The organizations he is a part of are made up of trusted advisors including Attorney's, CPA's, Business Brokers, and Financial Professionals. His years of business experience and professionalism along with his strong personal ethical guidelines and knowledge of the *Uniform Standards of Professional Appraisal Practice (U.S.P.A.P.)* make him a perfect fit for this industry.

Mr. Rials has also had the unique privilege of being closely trained and coached by Accredited Senior Appraiser, Mr. John Harris, ASA, MCMEA, CSBA, CM&AA, MCBC, BCA, GPPA, BAE, MBA. Mr. Harris holds a certified general appraisal license in several states and has over 35 years of appraisal experience. He currently serves as the director and key training instructor for the National Equipment And Business Builder's Institute and has personally instructed over 780 business professionals coast-to-coast and worldwide in the techniques and methodologies of machinery and equipment appraisal and machinery and equipment brokerage. In addition he has also instructed on the topics and techniques of Business and Real Estate for several national organizations. Mr. Rials has weekly and sometimes daily conversations with Mr. Harris on the Machinery and Equipment Industry. Mr. Rials also continues to receive extensive training and guidance from Mr. Nathan Bazzle, MCMEA, CSBA who owns several successful business and performs Machinery and Equipment Appraisals and Business Valuations all over the nation.

Mr. Rials has the following credentials:

- CMEA – Certified Machinery and Equipment Appraiser
- MCMEA – Master Certified Machinery and Equipment Appraiser
- SBA – Senior Business Analyst
- Provides Expert Court Testimony when called upon to do so.
- Former CEO of Call Insights, Inc.

Member Of NEBB INSTITUTE www.nebbi.org

CMEA

Member Of INTERNATIONAL SOCIETY OF BUSINESS ANALYSTS ISBA

Partial List of Businesses Appraised - The following is a partial list of the types of businesses that have been appraised by CMEAs:

Accounting Practices
Architectural & Engineering Services
Advertising Agencies
Aerial Spraying Services
Airports
Appliance Sales & Repair
Art & Craft Supply Stores
Asphalt Plants/Sand Pits
Attorney's Practices
Auto Body Shops
Auto Dealerships
Auto Parts Stores
Auto Repair Garages
Bakeries
Banks
Beauty Shops
Bridal Shops
Building Product Supplies
Candy Shops
Catalog & Mail Order Houses
Chemical Manufacturers
Chemical Distributors
Clinics
Clubs/Taverns
Collection Agencies
Construction Companies
Convenience Stores
Cosmetic Stores
Country Clubs
Dairy Farms
Dental Practices
Distribution Companies
Dog Kennels
Donut Shops
Dry Cleaners
Electrical Contracting Services
Exercise Gyms
Fabric Stores
Fast Food Restaurants
Farms
Flower Shops
Food Processing Plants
Furniture Stores
Gasoline Stations
Gift Shops
Golf Courses
Grocery Stores
Hardware Stores
Hobby Shops
Hospitals
High Tech Manufacturing Companies
Historical Buildings
Hotels
Ice Cream Stores
Interior Decorating Shops
Insurance Agencies
Janitorial Companies
Ladies Retail Clothing
Liquor Stores
Lumber Yards
Machine Shops
Maid Service Franchises
Mall Specialty Shops
Manufacturing Companies
Medical Clinics
Millwork Shops
Motels
Moving and Storage Companies
National Franchises
Newspapers
Oil and Gas Refineries
One Hour Photo Stores
Photography Studios
Physicians Practices
Plumbing Contracting Services
Printing Companies
Radio/TV Repair Companies
Real Estate Sales Agencies
Recreational Vehicle Dealerships
Refuse Hauling Companies
Restaurants
Rock Quarries
Rodeo Stadiums
Sandwich Shops
Schools
Supper Clubs
Swimming Pool Builders
Travel Agencies
Trucking Companies
Veterinary Clinics
Video Rental & Sales Shops
Wallpaper Stores
Welding Shops
Well Drilling Companies
Well Servicing Companies
Wholesale Businesses
Woodworking Shops
Wrecker/Towing Services

ADDENDA

Additional Definitions and Terms from USPAP

Various terms are used throughout the appraisal report. The following are definitions of the terms:

1. ADVOCACY - Representing the cause or interest of another, even if that cause or interest does not necessarily coincide with one's own beliefs, opinions, conclusions, or recommendations.

2. APPRAISAL - (noun) The act or process of developing an opinion of value; an opinion of value. (Adjective) of or pertaining to appraising and related functions such as appraisal practice or appraisal services.

3. APPRAISAL CONSULTING -The act or process of developing an analysis, recommendation, or opinion to solve a problem, where an opinion of value is a component of the analysis leading to the assignment results.

4. APPRAISAL FOUNDATION - The Appraisal Foundation incorporated as an Illinois not for Profit Corporation on November 30, 1987.

5. APPRAISAL PRACTICE - Valuation services performed by an individual acting as an appraiser, including but not limited to appraisal, appraisal review, or appraisal consulting.

6. APPRAISER - One who is expected to perform valuation services competently and in a manner that is independent, impartial, and objective.

7. APPRAISER PEERS - Other appraisers who have expertise and competency in the same or a similar type of assignment.

8. APPRECIATION - Increase in value due to increase in cost to reproduce, value over the cost, or value at some specified earlier point in time brought about by greater demand, improved economic conditions, increasing price levels, reversal of depreciating environmental trends, improved transportation facilities, direction of community or area growth, or other factors.

9. ASSIGNMENT - A valuation service provided as a consequence of an agreement between an appraiser and a client.

10. ASSIGNMENT RESULTS - An appraiser's opinions and conclusions developed specific to an assignment.

11. ASSUMPTION - that which is taken to be true.

12. BIAS - A preference or inclination that precluded an appraiser's impartiality, independence, or objectivity in an assignment.

13. BUSINESS ENTERPRISE - An entity pursuing an economic activity.

14. CLIENT - The party or parties who engage an appraiser (by employment or contract) in a

specific assignment.

15. CONFIDENTIAL INFORMATION - Information that is either: Identified by the client as confidential when providing it to an appraiser and that is not available from any other source; or
    Classified as confidential or private by applicable law or regulation.

16. COST - The amount required to create, produce, or obtain a property

17. DEPRECIATION - A loss of utility and hence value from any cause. An effect caused by physical deterioration and/or obsolescence.

18. ECONOMIC OBSOLESCENCE - Impairment of desirability of useful life arising from factors external to the property, such as economic forces or environmental changes which affect supply-demand relationships in the market. Loss in the use and value of a property arising from the factors of economic obsolescence is to be distinguished from loss in value from physical deterioration and functional obsolescence, both of which are inherent in the property. Also referred to as Location or Environmental Obsolescence.

19. EXTRAORDINARY ASSUMPTION - an assumption, directly related to a specific assignment, which, if found to be false, could alter the appraiser's opinion or conclusions.

20. FEASIBILITY ANALYSIS - A study of the cost-benefit relationship of an economic endeavor.

21. FUNCTIONAL OBSOLESCENCE - Impairment of functional capacity or efficiency. Functional obsolescence reflects the loss in value brought about by such factors as overcapacity, inadequacy, and changes in the art that affect the property item itself or its relation with other elements comprising a larger property. The inability of a structure to perform adequately the function for which it is currently employed.

22. HIGHEST AND BEST USE - That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal.

23. HYPOTHETICAL CONDITION - That which is contrary to what exists but is supposed for the purpose of analysis.

24. INTANGIBLE PROPERTY (INTANGIBLE ASSETS) - Nonphysical assets, including but not limited to franchises, trademarks, patents, copyrights, goodwill, equities, securities, and contracts as distinguished from physical assets such as facilities and equipment.

25. INTENDED USE - The use or uses of an appraiser's reported appraisal, appraisal review, or appraisal consulting assignment opinions and conclusions, as identified by the appraiser based on communication with the client at the time of the assignment.

26. INTENDED USER - The client and any other party as identified, by name or type, as users of the appraisal, appraisal review, or appraisal consulting report by the appraiser on the basis of communication with the client at the time of the assignment.

27. JURISDICTIONAL EXCEPTION - An assignment condition that voids the force of a part or parts of USPAP, when compliance with part or parts of USPAP is contrary to law or public policy applicable to the assignment.

28. MARKET PRICE - The amount actually paid, or to be paid, for a property in a particular transaction differs from market value in that it is an accomplished or historic fact, whereas market value is and remains an estimate until proven. Market price involves no assumption of prudent conduct by the parties, absence of undue stimulus, or any other condition basic to the market value concept.

29. MARKET VALUE - A type of value, stated as an opinion, that presumes the transfer of property (i.e., a right of ownership or a bundle of such rights), as of a certain date, under specific conditions set forth in the definition of the term identified by the appraiser as applicable in an appraisal.

30. PERSONAL PROPERTY - Identifiable tangible objects that are considered by the general public as being "personal" - for example, furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all tangible property that is not classified as real estate.

31. PRESENT VALUE - The current monetary value. It is the today's cash lump sum, which represents the current value of the right to collect future payments. It is the discounted value of aggregate future payments.

32. PRICE - The amount asked, offered, or paid for property.

33. REPORT - Any communication, written or oral, of an appraisal, appraisal review, or appraisal consulting service that is transmitted to the client upon completion of an assignment.

34. SCOPE OF WORK - The amount and type of information researched and the analysis applied in an assignment. Scope of work includes, but is not limited to, the following:the degree to which the property is inspected or identified;the extent of research into physical or economic factors that could affect the property;the extent of data research;and the type and extent of analysis applied to arrive at opinions or conclusions.

35. SIGNATURE - Personalized evidence indicating authentication of the work performed by the appraiser and the acceptance of the responsibility for content, analyses, and conclusions in the report.

36. SUPPLEMENTAL STANDARDS - Requirements issued by government agencies, government sponsored enterprises, or other entities that establish public policy which add to the purpose, intent and content of the requirements in USPAP, that have a material effect on the development and reporting of assignment results.

37. VALUE - The monetary relationship between properties and those who buy, sell, or use those properties.

38. VALUATION PROCESS - Services pertaining to aspects of property value.

39. WORKFILE - Documentation necessary to support an appraiser's analysis, opinions, and conclusions.

ENGAGEMENT AGREEMENT for an Expert Equipment Appraisal

by certifiedconsultinggroupLLC

Attn: Rick Larsen

JOB NUMBER	ENE010515BG

Thank You for allowing us the opportunity to become the appraiser of choice on this assignment. We understand that you face incredible challenges, time constraints, and compliance issues with this transaction. With that in mind our Appraisers will diligently work to make this process go as smoothly as possible for you.

The Master Appraisers at Certified Consulting Group LLC have made a commitment to these guarantees:
Guaranteed Value: our pricing will be reasonable and clearly defined.
Guaranteed Speed: our reports will be completed FAST and Professionally (usually within 3-5 days).
Guaranteed Accuracy: our reports will have accurate market data and summaries of that data.
Guaranteed Experience: our people will be knowledgeable and helpful.
Guaranteed Professionalism, Ethics, and a Substantiated / Irrefutable Appraisal.

Your Investment includes the following Scope of Work:

Appraisal Report (Desktop) [ ] Appraisal Report (Onsite) [X]

Quoted Fee:	$11,122.50			Total Due:	

Payment Arrangements:	½ Down and ½ Prior to Delivery		
Effective Date of Report:	02/16/2015	Expected Completion Date :	02/27/2015

The completion of the report in this time frame relies on receipt of ALL equipment data from the client or from the site visit. Any delays, additions, or changes can move the Expected Completion date. Should anything change or be stalled we will be in constant communication to remedy the delay or update the client on progress.

Client (Ordering Entity):	Energy West Mining Company		
Client Address:	15 N Main St, P O Box 310, Huntington, UT 84528		
Client Contact Name:	Rick Larsen	Title:	Materials/Procurement Specialist
Client Contact Phone:	435-687-4756	Email:	Rick.larsen@pacificorp.com

Additional Intended Users	

Equip. Location Business	Joy Manufacturing		
Equipment Address(s):	1275 E Ridge Rd Price, UT 84501		
Onsite Contact Name:		Title:	
Onsite Contact Phone:		Email:	

Reason for Appraisal:	Buy/Sell

Type(s) Of Value:	Fair Market Value
Type of Property:	Long Wall Mining Equipment

The parameters of this engagement are also based upon previous communication.
Appraiser is to use the approaches to value he/she feels is applicable, or a blending thereof, in determining value.

Appraisal Report Includes: List (Exhibit B & Exhibit C) provided by Client
of equipment valued with line item summary format, smaller value items below **$1,500** may be appraised by Industry Depreciation Metrics and are listed by these categories: (Ancillary and Support, Electronics, & Furniture/Fixtures)
A line item Summary (when available) of research used to reach opinion of value.
1 Digital copy of the report and 2 Bound Copies (Additional Copies can be purchased if needed)
A full explanation of the report if desired
Additional Notes or Details:
As a result of our previous communication, and at your request, I will report this *Onsite Appraisal Report* according to one of the report formats outlined in Standard Rule Eight of the Uniform Standards of Professional Appraisal Practice. Specifically, you have requested that the assignment be reported as a *Onsite Appraisal Report Format*. I have determined that the chosen report format is consistent with the nature of the assignment and the intended use of the report. By signing below the Client and Appraiser agree to the Scope (above) and Terms of Agreement (As found on page 2 of this agreement).
The appraiser certifies that involvement with the property hereby being appraised in the last three years is: NONE

Digitally Signed by:
Nathan J Bazzle, *MCMEA, CSBA*
President of Certified Consulting Group LLC
Master Certified Machinery and Equipment Appraiser

Dated : 1/30/2015

Client Printed Name: _____

Client Printed Title: _____

Client Signature: _____ Dated _____

ENGAGEMENT AGREEMENT for an Expert Equipment Appraisal

by certifiedconsultinggroupLLC

Additional Information and Terms of Agreement

You have requested an *Appraisal Report* as defined by the Uniform Standards of Professional Appraisal Practice:

1. *Certified Consulting Group LLC and its Affiliates are Ethically bound to keep the Client, Equipment Business, Intended Users, and Transaction Details or Information in the strictest confidence.*
2. *The appraisal report will not be shared without the Client's / Certified Consulting Group LLC's approval.*
3. *The appraiser will report the type of value requested by the client by researching the market and industry, apply the appropriate approaches to value, and provide a written report of his/her findings.*
4. *Only the larger items of machinery/equipment will be appraised using the whole range of appraisal methodology. If applicable, the balance of smaller support items will be valued by way of industry depreciation standards and historical metrics. These smaller items will be valued and reported in bulk.*
5. *Payment to Certified Consulting Group LLC or its affiliates, assumes acceptance of appraisal scope / terms of agreement. In the event of any delay attributed to the Client or its parties exceeding 45 days from the executed engagement agreement, the cost of services shall immediately be reconciled by you, the client. The invoiceable services at any phase of completion shall revert to our normal hourly rate and rendered due on receipt without negotiation.*
6. *In the unlikely event of a dispute, the parties under the terms of this agreement shall be subject to arbitration. Arbitration shall be conducted in the state of residence of the appraiser signing the report.*
7. *The appraiser is indemnified against any and all problems that may arise from the use of this report. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorney's fees, to which we may become subject in connection with this engagement. You will not be liable for our negligence.*
8. *You agree that, in the event we are judicially determined to have acted negligently in the execution of this engagement, damages shall be limited to an amount not to exceed the fee received by us for this engagement.*
9. *Our liability for injury or loss, if any, arising from the services we provide to you shall not exceed $5,000 or our fee, whichever is greater. There shall be no punitive damages. Increased liability limits may be negotiated upon your written request, prior to commencement of our services, and your agreement to pay an additional fee.*
10. *Your obligation for indemnification and reimbursement shall extend to any controlling person of named Client (ordering entity), including any director, officer, employee, subcontractor, affiliate or agent.*
11. *If in the future the appraiser is called on to testify in deposition or court, by the client or any other party regarding this appraisal report, the appraiser will be paid by the client the going hourly rate (Minimum of 8 Hours.) This fee will cover professional time, the gathering of materials, reviewing the case and preparing for testimony along with other expenses incurred including travel. The Appraiser will also be paid by the client the going hourly rate (Minimum of 8 Hours) along with reimbursements for testimony if subpoenaed as a witness in a subsequent litigation by any party and such testimony involves the work performed pursuant to this agreement. If the appraiser is ordered by a state or federal judge to permit the subsequent inspection and/or reproduction of files, records, and other documents relating to work performed by us pursuant to this agreement, it is agreed that we may comply with these orders without prior notice to the client. A minimum retainer shall be paid 10 days in advance of travel that includes - 8 hours of going hourly rate, travel expenses, any pretrial expenses incurred. Ongoing litigation will be billed weekly as incurred against an in-place retainer minimum, this retainer will be based on expected expenditures as determined by client & appraiser. (Going Hourly Fees provided upon request).*
12. *If the appraiser is called upon as an expert witness a separate agreement shall be made for compensation at that time. The client will shoulder the responsibility of legal costs incurred by the appraiser when defending this appraisal.*
13. *Client agrees that the Limiting Conditions, as stated in the report, will be acceptable with the level of work and detail of work to be performed as outlined in the "Scope" section of the report. A sample of a fully defined Scope Section of our report has been provided and received by the client.*

In Compliance with National U.S.P.A.P. Guidelines and our company policy all Appraisal Fees are Due Prior to release of report unless otherwise negotiated. (USPAP Compliance as outlined in Standard Rule Eight of the Uniform Standards of Professional Appraisal Practice).

Combined Longwall Parts All Locations

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	Quantity on Hand
38909	537-0039-4 MAGNET WHEEL FOR OWEN FEEDER	66	O0 4F1	DC	EA	1
68711	539-0149-7 O-RING	66	3D 08E	CW	EA	1
76671	405-0033-4 HYD. PUMP STAMLER OWEN	66	5G 05J	CW 600	EA	1
95528	100075622 SAG SWITCH WITH SHORT PIGTAIL	66	E0 5B5	DC	EA	1
68208	604-0377-4 CRAWLER PAD DOWTY TAILPI	66	E0 1G6	DC	EA	2
68700	410-0034-4 TRAM MOTOR REF CHARLYNN	66	F0 4E1	DC	EA	2
72593	514-0029-7 TORQUE HUB TAILPIECE	66	2A 03C	CW 600	EA	2
83522	549-0052-4 LOCKNUT ITEM # 1I	66	3D 04E	CW	EA	2
38916	601-1264-4 PIN PAD FOR OWEN FEEDER BREAK	66	E0 1G5	DC	EA	4
68710	503-0143-7 BEARING CONE	66	5D 02C	CW	EA	36
68709	503-0142-7 BEARING CUP	66	5D 02C	CW	EA	48

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
65278	633-9042 MAIN CONTROL VALVE HAUINCHO PUMP	074A	1F 01L	CW	EA	1
65278	633-9042 MAIN CONTROL VALVE HAUINCHO PUMP	074A	5G 02E	CW 600	EA	1
95021	HT232006 SUCTION TRANSDUCER	074A	E1 0G3	DC	EA	1
96067	HT241031 PRECHARGE PUMP ASSY. 7 1/2 HP	074A	K0 2B3	DC 600	EA	1
51032	643 9950 RING 125 HAUINCHO(88-04-01)	074A	1F 01C	CW	EA	2
84057	455 2326 VALVE SEAT	074A	E1 0E4	DC	EA	2
85483	655 1696 PISTION, HAUHINCO	074A	E1 0E5	DC	EA	2
90740	655 8550 SUPPORT RING	074A	E1 0C1	DC	EA	2
95017	637 6797 PLUNGER	074A	E1 0G4	DC	EA	2
95018	234 1336 WAVE SPRING	074A	E1 0F8	DC	EA	2
95019	656 8211 CLAMPING BOLT ASSY. PLUNGER RETAINER	074A	E1 0G1	DC	EA	2
86613	210 7112 O-RING HAUHINCO	074A	E1 0E6	DC	EA	3
91660	655 1904 DISC HAUHINCO	074A	E1 0C2	DC	EA	3
96399	656 4631 SPACER	074A	E1 0C5	DC	EA	3
52543	201 5722 CHEEZE HEAD BOLT 12 X 70 MM	074A	1F 01C	CW	EA	4
95020	235 2419 OIL FILTER	074A	E1 0G2	DC	EA	5
95011	211 6480 PACKING	074A	E1 0F2	DC	EA	6
95012	655 5209 BRASS RING	074A	E1 0F3	DC	EA	6
95013	211 7916 O-RING	074A	E1 0F4	DC	EA	6
94473	211 8041 SUPPORT RING 95.0 X 103.0 HAUHINCO	074A	E1 0C4 B	DC	EA	8
94474	211 8068 SUPPORT RING 96.0 X 104.0 HAUHINCO	074A	E1 0C4 C	DC	EA	8
95014	211 7924 BACK UP RING	074A	E1 0F5	DC	EA	8
95015	211 7932 BACK UP RING	074A	E1 0F6	DC	EA	8

51019	210 9719 THRUST RING 200 HAUINCHO(95-10-01)	074A	1F 01C	CW	EA	9
94472	211 8033 O-RING 94.00 X 5.00 HAUHINCO	074A	E1 0C4 A	DC	EA	9
51023	210 8801 O RING 200 HAUINCHO(95-10-01)	074A	E1 0D5	DC	EA	10
95016	211 6499 SUPPORT RING	074A	E1 0F7	DC	EA	10
51865	210 9085 THRUST RING FOR HAUHINCO 125 PUMP	074A	E1 0E1	DC	EA	13
72960	211 2299 PACKING HAUHINCO	074A	E1 0E3	DC	EA	16
78231	210 2935 O-RING FOR 200 PUMP	074A	1F 01C	CW	EA	24
78232	210 8763 O-RING FOR 200 PUMP	074A	1F 01C	CW	EA	24

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
65095	99.000.036.00 HEX BOLT	83	3D 04G	CW	EA	6
65100	99.913.185.00 O-RING - REF: 196.4X3.53	83	3D 08E	CW	EA	2

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
40041	1069528-370 TORQUE SHAFT FOR 3LS (86	84	6A 06E	CW	EA	1
41847	571689-2 ACTUATOR (COWL) (86-08	84	5G 08N	CW 600	EA	1
41876	600505-67 TRACTION MTR. (86-0	84	1A 07G	CW 600	EA	1
41877	600128-565 PUMP MTR. (86-	84	1A 07F	CW 600	EA	1
47088	601886-17 HOST	84	5G 02G	CW 600	EA	1
67579	601843-182 TRANSMITTER	84	5G 01G	CW 600	EA	1
75314	3047404-9 GAUGE 3000 PSI SIDE MOUNT FITT	84	3D 06A	CW	EA	1
77775	530896-4 STRAINER FOR HYD. TANK (SHEARE	84	E0 7A9 A	DC	EA	1
79106	572065-203 CABLE ENTRANCE ASSM	84	E0 5A4	DC	EA	1
85007	500792-797 440V SCRUBBER MOTOR	84	0A 02E	CW 400	EA	1
51016	601843-123 ANTENNA	84	E0 2E1	DC	EA	2
80338	925441-2441 BOLT	84	E0 9B4 B	DC	EA	2
94411	3069195-2631 COVER	84	0A 02B	CW	EA	2
46522	601874-21 DIAGNOSTIC DISPLAY 3LWS	84	5G 05J	CW 600	EA	3
41866	601054-90 CLIP (86-0	84	E0 5B3	DC	EA	4
61367	902109-250 SNAP RING	84	E0 7A3 B	DC	EA	4
76342	925435-2400 NUT, 24MM FOR COWL BOLTS ON	84	E0 5B1	DC	EA	6
89798	925439-2400 NUT 24MM	84	E0 9B4 A	DC	EA	6
76748	925550-2400 LOCKING WIRE 4 LS SHEARER	84	3D 04A	CW	EA	10
89798	925439-2400 NUT 24MM	84	3D 05E	CW	EA	35
76342	925435-2400 NUT, 24MM FOR COWL BOLTS ON	84	3D 02E	CW	EA	103

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
36482	532170-43 DUMP VALVE	084A	E0 2C7	DC	EA	1
36497	530896-7 STRAINER FOR HYD TANK	084A	E0 2C5	DC	EA	1
36529	1069566-394 SPACER	084A	E0 2E4	DC	EA	1
36536	603024-1, BREAKER, CATALOG NO. LD3600F,	084A	3D 07E	CW	EA	1
36536	603024-1, BREAKER, CATALOG NO. LD3600F,	084A	E0 2J4	DC	EA	1
36579	601878-22, CONTACTOR: MITSIBUSHI NO.	084A	3D 07L	CW	EA	1
36599	601054-92 RELAY	084A	3D 06E	CW	EA	1
36600	601054-93 RELAY	084A	3D 06E	CW	EA	1
36602	601506-375 CUTTER SELECTION SWITCH	084A	3D 06C	CW	EA	1
41830	601054-61 RELAY (86-08-04) KU-4784 (POT	084A	E0 2C6	DC	EA	1
41831	601506-320 SWITCH (86-08-04)	084A	3D 06C	CW	EA	1
41838	601566-6 COUPLER (86-08-04)	084A	3D 03J	CW	EA	1
41838	601566-6 COUPLER (86-08-04)	084A	5G 02G	CW 600	EA	1
47667	600007-801 ALARM SPEAKER	084A	E0 3D2	DC	EA	1
55793	601843-165 CABLE	084A	E0 2H1	DC	EA	1
72093	601506-363 SWITCH	084A	3D 06E	CW	EA	1
73179	601874-45 DIAGNOSTIC DISPLAY SHEARER	084A	5G 03A	CW 600	EA	1
76211	500140-603 RANGING ARM CYLINDER	084A	J0 6F3	DC 600	EA	1
76754	3069146-19 SEAL CARRIER FOR WATER TUBE	084A	5G 03C	CW 600	EA	1
77635	601843-192 TRANSMITTER FOR 4LS SHEARER	084A	5G 03A	CW 600	EA	1
79967	601886-36C HOST 4LS SHEARER	084A	5G 04A	CW 600	EA	1
82667	601506-425 SWITCH, UMBILICAL RADIO	084A	3D 06E	CW	EA	1
83988	571361-11 CHECK VALVE FOR COWL FLUSH	084A	E0 5B4	DC	EA	1
84715	600007-807 AUDIO ALARM	084A	3D 05C	CW	EA	1
85725	603192-5 HOST EXPANDER	084A	3D 13E	CW 600	EA	1
86769	925441-3035 BOLT	084A	3D 06C	CW	EA	1
86905	603162-2 ANTENNA JOY SHEARER, TRANSMI	084A	E0 4B3	DC	EA	1
87104	503071-35 COWL MOTOR_FOR 7LS SHEAR	084A	E0 3E3	DC	EA	1
87179	506241-12 PUMP	084A	F0 3G2	DC 600	EA	1
87771	100089866 GEARSET MATCHED SPUR	084A	3D 01N	CW	EA	1
87775	910660-362 O-RING	084A	3D 01J	CW	EA	1
88703	910660-48 O-RING	084A	3D 01G	CW	EA	1
89219	901246-574 SEAL 4LS	084A	3D 08L	CW	EA	1
91087	601875-85 CABLE, JOY	084A	E0 9B1	DC	EA	1
41832	601506-321 SWITCH (86-08-04)	084A	3D 06C	CW	EA	2
41834	601506-348 SWITCH (86-08-04)	084A	3D 06C	CW	EA	2
41835	601506-349 SWITCH (86-08-04)	084A	3D 06E	CW	EA	2
44032	506205-766 RELIEF VALVE 3000 LB	084A	3D 07A	CW	EA	2
44033	506205-1278 RELIEF VALVE 2000 LB	084A	3D 07A	CW	EA	2

73166	601878-21 CONTACTOR, JOY	084A	E0 3B3	DC	EA	2
76209	534935-11 CHECK VALVE FOR JOY SHEARER	084A	3D 07A	CW	EA	2
85353	03-00079 DN 40 M-F ELBOW	084A	E0 2J2	DC	EA	2
86899	603162-1 ANTENNA FOR JNA REMOTE	084A	E0 4B2	DC	EA	2
87354	100049065 DATA COUPLER	084A	3D 13E	CW 600	EA	2
87626	1562673-12 FILTER, SHEARER	084A	E0 6B2	DC	EA	2
89803	1069528-2214 HAULAGE TORQUE SHAFT	084A	E0 3J	DC	EA	2
92494	1069428-91 COWL PIN 7LS SHEAR	084A	E0 3C3	DC	EA	2
93756	925447-2444 M24X220 BOLT (ALLEN HEAD)	084A	E0 9B5 A	DC	EA	2
94408	925442-1215 HEX BOLT	084A	3D 06C	CW	EA	2
36486	506220-28 HYDRAULIC PUMP, JOY SHEAR	084A	5G 03J	CW 600	EA	3
36499	925447-3035 M30X3.5X120 ALLEN HEAD BOLT	084A	3D 01E	CW	EA	3
36601	601506-385 PILOT SWITCH	084A	3D 06E	CW	EA	3
75191	925447-3655 36MM X 440M BOLT 4LS	084A	E0 4D2	DC	EA	3
76210	534935-12 CHECK VALVE FOR JOY SHEARER	084A	3D 07A	CW	EA	3
82943	601886-38 HOST, JOY SHEARER	084A	3D 13J	CW 600	EA	3
86853	601843-253 ANTENNA, JOY SHEARER, RECEIVE	084A	E0 1G3	DC	EA	3
87451	925441-2434 M24X110 BOLT, HEX HEAD	084A	3D 04G	CW	EA	3
89805	100032302 HAULAGE SHAFT	084A	E0 5I2	DC	EA	3
92492	1069700-171 GEAR _FOR 7LS SHEAR	084A	E0 3C2	DC	EA	3
36604	601506-381 CONTROL CIRCUIT TEST SWITCH	084A	E0 2C3	DC	EA	4
75190	925435-3600 36MM NUT 4LS	084A	3D 03L	CW	EA	4
82602	601817-25 BULB (BASE)	084A	3D 07J	CW	EA	4
85354	03-00080 DN 40 M-F ELBOW	084A	E0 2J3	DC	EA	4
87444	925447-2434 M24X110 BOLT ALLEN HEAD	084A	3D 04J	CW	EA	4
95362	1069528-2198 TORQUE SHAFT, CUTTER HEAD	084A	J0 1A8	DC	EA	4
41863	601878-7 CONTACTOR (86-08	084A	5G 08G	CW 600	EA	5
51399	1069528-407 TORQUE SHAFT FOR SHEAR CRUSH	084A	E0 4F5	DC	EA	5
67580	601843-186 CABLE ASY.	084A	E0 2E3	DC	EA	5
79290	925447-3662 HAULAGE BAR BOLT M36 X 4 X 5	084A	E0 6H1	DC	EA	5
81862	506205-2165 valve	084A	3D 07A	CW	EA	5
86865	100045599 ANTENNA ADAPTER JOY SHEARER	084A	E0 1G4	DC	EA	5
87773	925447-3043 SCREW CAP SKT HD,M30,200,CL	084A	E0 5G5	DC	EA	6
92491	1069128-266 BUSHING _FOR 7LS SHEAR	084A	E0 3C1	DC	EA	6
75112	1069528-529 TORQUE SHAFT (RANGING ARM)	084A	E0 4F4	DC	EA	8
75190	925435-3600 36MM NUT 4LS	084A	E0 5B2	DC	EA	8
75031	925441-2430 24M X 80 M BOLT	084A	3D 07C	CW	EA	10
87460	925447-2439 M 24 X 160 SHCS	084A	3D 04J	CW	EA	11
87445	925447-2435 M24X120 BOLT, ALLEN HEAD	084A	3D 05A	CW	EA	12
87450	925447-2437 M24X140 BOLT, ALLEN HEAD	084A	3D 03E	CW	EA	12
94409	904685-0150 SPRING PIN	084A	3D 06A	CW	EA	12
47957	600014-103 FUSE	084A	E0 2B1	DC	EA	13
50639	907009-18 HOG RING	084A	E0 1D3	DC	EA	14
87319	925447-2443 M24X200 BOLT__ALLEN HEAD	084A	E0 6D3	DC	EA	16

87456	029-4734-P4 O-RING	084A	3D 04E	CW	EA	16
81652	905541-63 O-RING (CONTROLLER)	084A	3D 07A	CW	EA	20
87765	100074462 BOLT	084A	E0 9A6	DC	EA	21
87766	100074468 WASHER	084A	E0 9A7	DC	EA	27
75032	925441-2435 24M X 120M BOLT	084A	3D 02A	CW	EA	28
80095	925441-2024 BOLT 4LS	084A	3D 03A	CW	EA	38
83721	925081-240 LOCK WASHER	084A	3D 03G	CW	EA	203

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
93318	370779 SPRAY BAR FOR SHEARER	084B	OS 09C	DC	EA	1
93752	1069128-267 BUSHING (1-SET)	084B	K0 1A3 A	DC	EA	1
93753	1069273-72 GEAR (1-SET)	084B	K0 1A3 B	DC	EA	1
94405	100085169 TRANSFORMER	084B	3D 06G	CW	MT	1
94836	100336881 CTU FOR SHEARER, JANA CONTROLL	084B	F0 2D2	DC 600	EA	1
94859	100287559 CONTROLLER GIO	084B	E1 2I2	DC	EA	1
94860	100303064 REMOTE INPUT/OUTPUT AC ANALOG	084B	E1 2G4	DC	EA	1
94861	100278002 CENTRAL CONTROL UNIT I.D.M.	084B	F0 2B2	DC 600	EA	1
94862	100305503 SENSOR, CURRENT, BASE, (MCT)	084B	E1 2G1	DC 600	EA	1
94863	100398474 SENSOR, CURRENT, ELECTRONICS	084B	E1 2G2	DC 600	EA	1
94864	100326359 TRANSCEIVER UNIT, 900 SERIRS,	084B	E1 2F2	DC	EA	1
94874	100466866 REV1 VFD HAULAGE DRIVE	084B	J0 6D2	DC 600	EA	1
95372	100372957 CHARGER	084B	F0 2E2	DC	EA	1
95373	100397578 RADIO TRANSCEIVER	084B	F0 3B1	DC	EA	1
95492	100391529 COWL MOTOR W/ ENCODER SHAFT	084B	E0 6I2	DC	EA	1
95505	100428173 MOUSE	084B	F0 2B1	DC 600	EA	1
97060	100234263 CABLE, SHEARER	084B	3D 04L	CW	EA	1
97262	100393221 INCLINOMETER CABLE WITH SENSOR	084B	3D 04N	CW	EA	1
89867	100027672 TRANSMITTER (BLACK)	084B	5G 01E	CW 600	EA	2
91873	604509-18 LED WARNING LIGHT BULB	084B	E0 7A2 A	DC	EA	2
95413	100327786 FILTER, HYDRAULIC FOR SHEARER	084B	E0 5C7	DC	EA	2
89860	100016250 RECIVER	084B	F0 3E3	DC 600	EA	3
89868	100027673 TRANSMITTER (ORANGE)	084B	5G 01E	CW 600	EA	3
90000	100012403 FUSE CERAMIC	084B	E0 7A2 B	DC	EA	4
94833	100405857 REMOTE FOR JOY SHEARER	084B	F0 3A1	DC 600	EA	4
93589	925471-1215 SET SCREW 12MM X 20MM	084B	3D 03J	CW	EA	8
97545	C-140-0202 BIT BLOCK (ACS)	084B	E0 7G1	DC	EA	11
92864	603217-3 CABLE, POWER, 25.0MM 2,3 CONDUC	084B	3D 06J	CW	MT	12
97544	C-140-0201 BIT SLEEVE (ACS)	084B	E0 7G2	DC	EA	17

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH

11460	1188/4 SWIVEL SPRAY (CODE 1188/4)	87	E0 4B1	DC	EA	1
18240	SETTING PISTOL	87	E1 3H1	DC	EA	1
42135	73377704200000 420 BAR RELIEF VALVE	87	F1 0B3	DC 600	EA	1
53901	SLB-16-16-41 NW25 SCREW IN SLEEVE W/BOND	87	3D 07C	CW	EA	6
13663	2801 CC SPRAY-STAPL LOCK	87	E0 1I1	DC	EA	75
76405	O-RING 70MM 70MM O RING FOR 70MM EMULSI	87	1F 01E	CW	EA	382

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
82224	V30058-4-9375 HOOP	88		DC	EA	0
83465	LONGWALL FACE LIGHT KH CONTROLS P/N	88	N0 3E1	DC 600	EA	10
83467	C10246 POWER SUPPLY KH CONTROL	88	5G 03J	CW 600	EA	2
83467	C10246 POWER SUPPLY KH CONTROL	88		DC	EA	0
83467	C10246 POWER SUPPLY KH CONTROL	88		DC 600	EA	0
83468	YTL-3 Y CABLE #12-3 SOW. 1.5M,1.5F, 5.0'	88	1D 12E	CW	EA	4
83468	YTL-3 Y CABLE #12-3 SOW. 1.5M,1.5F, 5.0'	88		DC	EA	0
83469	J12TL-11 CABLE JUMPER #12-3 SOW, 11', MA	88	1D 12C	CW	EA	2
83469	J12TL-11 CABLE JUMPER #12-3 SOW, 11', MA	88		DC	EA	0
83470	J12TL-18 CABLE JUMPER #12-3 SOW, 18', MA	88	1D 12E	CW	EA	4
83470	J12TL-18 CABLE JUMPER #12-3 SOW, 18', MA	88		DC	EA	0
83471	J12TL-25 CABLE JUMPER #12-3 SOW, 25', MA	88	1D 12C	CW	EA	3
83471	J12TL-25 CABLE JUMPER #12-3 SOW, 25', MA	88		DC	EA	0
89670	PIN, HAIR CLIP	88		DC	EA	0
89670	PIN, HAIR CLIP	88	A0 1H9	DC 100	EA	0
94866	JKFW2KFW2-8-120 LIGHT POWER CABLE WITH N	88	J0 3A1	DC	EA	1
94878	11529ESL1 SINGLE BALLAST, POWER SUPPLY	88		DC	EA	0
94878	11529ESL1 SINGLE BALLAST, POWER SUPPLY	88	N0 5G1	DC 600	EA	3
94879	CXP1-W-8F NIP, POWER SUPPLY	88	E1 1C3	DC	EA	2
94880	11529ESL TRIPLE BALLAST, POWER SUPPLY	88		DC 600	EA	0
94880	11529ESL TRIPLE BALLAST, POWER SUPPLY	88	E1 2J2	DC	EA	1
94881	YCTL-23 Y CABLE #14-4 SOW	88	E1 1C2	DC	EA	2
94882	J14TL-11 JUMPER CABLE 11FT #14-4 MALE/FE	88	E1 1B1	DC	EA	1
94883	J14TL-13 JUMPER CABLE 13FT #14-4 MALE/FE	88	E1 1B2	DC	EA	1
94884	JCMXKFW2-8-10 JUMBER CABLE 10FT #8-3 GGC	88	E1 1B3	DC	EA	1
94885	CXP1-W-D2 TERMINATOR,	88	E1 1C1	DC	EA	1
95463	J14TL-18 JUMPER CABLE 18FT #14-4 MALE/FE	88	E1 1C5	DC	EA	2

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
339	A2315-001 DIODE	89	O0 2C1	DC	EA	8
2312	C1035-001-PS GROUND MONITOR	89	N0 5B2	DC 600	EA	1
2362	C44-1 CHAIN STRAND	89	O0 1E4	DC	EA	6
13599	270-0002 FILTER 1000 VOLT	89	O0 2B3	DC	EA	3

26519	M66-004 MALE PLUG COMPLETE XP1904-	89	O0 2I1	DC	EA	1
29096	253-0035 PRINTED CIRCUIT BOARD	89		CW	EA	0
29096	253-0035 PRINTED CIRCUIT BOARD	89	O0 2A7	DC	EA	2
29755	CV212-HAT USE ID 44078, JOY 601878-4,	89	N0 4A2	DC 600	EA	3
30447	C54-004 SHEAR REMOTE RELAY	89		DC	EA	0
30447	C54-004 SHEAR REMOTE RELAY	89	N0 5B4	DC 600	EA	2
41467	LM 1574 CONTROLER FOR COMTROL PHONE (86-	89	5G 03G	CW 600	EA	3
41467	LM 1574 CONTROLER FOR COMTROL PHONE (86-	89	7C 01E	CW	EA	2
41467	LM 1574 CONTROLER FOR COMTROL PHONE (86-	89		DC 600	EA	0
41467	LM 1574 CONTROLER FOR COMTROL PHONE (86-	89		DC	EA	0
41469	PWR SUPP 1510 POWER SUPPLY FOR COMTROL P	89	N0 5E1	DC 600	EA	2
41469	PWR SUPP 1510 POWER SUPPLY FOR COMTROL P	89	O0 2G6	DC	EA	2
41470	REL 1516 RELAY COMTROL PHONE (86-07-04)	89	O0 4G5	DC	EA	7
51801	A3276 3/8" DEFLECTED LOCK WASHER	89	O0 2C5 B	DC	EA	9
54872	C54-005 SERVICE MACHINE GROUND MONITER	89		CW 600	EA	0
54872	C54-005 SERVICE MACHINE GROUND MONITER	89	N0 4A1	DC 600	EA	2
54872	C54-005 SERVICE MACHINE GROUND MONITER	89	O0 1H5	DC	EA	1
55400	A2451 1/2 IN THIN SPLIT LOCKWASHER SERVM	89	O0 2C5 A	DC	EA	25
55551	6850-0003 3/8 X 7/8 BUTTON HEAD BOLT SER	89	O0 2C2 B	DC	EA	108
65971	C1995 SERVICE MACHINE MONITOR	89		DC 600	EA	0
66948	6850-0008 1/2X1 1/4" PLATED NC BOLT SERV	89	O0 2C5 C	DC	EA	16
78378	C-3000 DIODE SERVICE MACHINE	89	O0 1E5	DC	EA	3
79196	REL GFR3001 GROUND FAULT RELAY, LINE POW	89		DC 600	EA	0
79196	REL GFR3001 GROUND FAULT RELAY, LINE POW	89	O0 2D4	DC	EA	2
83983	STRAIN CLAMP C44-3	89		DC	EA	0
85370	STRAIN CLAMP	89		DC	EA	0
88836	TR12431 TRANSFORMER FOR SERV. MACHINE	89	O0 5D4	DC	EA	2
92020	PWR SUPP 1510A POWER SUPPLY FOR COMTROL	89	N0 3D1	DC	EA	3
96459	B-2110-13 TRANSFROMER CURRENT (SMC)	89	1F 01G	CW	EA	1

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
68339	700059 EATON PUMP FOR WESTFALIA DME TAKE	98	K0 5B2	DC 600	EA	1
70317	02-10-1731 120V 60CYL .40AMP DME COIL, P	98	7D 01E	CW	EA	2

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
37099	103433/01 STAGELOADER FLIGHT BARS	102	3A 06C	CW	EA	1
78645	240100/76 O RING	102	3D 02G	CW	EA	1
78646	240100/77 O RING	102	3D 02G	CW	EA	1
78647	240100/78 O RING	102	3D 02G	CW	EA	1
78648	240100/79 O RING	102	3D 02G	CW	EA	1

78649	240100/80 O RING	102	3D 02G	CW	EA	1
78650	240100/81 O RING	102	3D 02G	CW	EA	1
78651	240100/82 O RING	102	3D 02J	CW	EA	1
78652	240100/83 O RING	102	3D 02J	CW	EA	1
78656	258053/00/63 LABRINTH RING	102	3D 02J	CW	EA	1
79564	230100/51 BEARING 24048SKF	102	3D 05N	CW	EA	1
79932	102560/16 FLUID COUPLING, 562	102	MO 12 0	DC 600	EA	1
84273	102487/95 STEEL WIRE	102	3D 03G	CW	EA	1
77611	180154/351 V BELT	102	G0 5A1	DC	EA	2
75152	34 MM CHAIN CONNECTOR (RUDD)	102	E0 4E1	DC 600	EA	4
78644	240100/75 O RING	102	3D 02G	CW	EA	4
78653	240100/84 O RING	102	3D 02J	CW	EA	4
78654	240100/85 O RING	102	3D 02J	CW	EA	4
86783	45/25/010 SPRING WASHER	102	3D 05G	CW	EA	6
93039	58004 FILTER (LONGWALL ASSOCIATES).	102	3D 03J	CW	EA	6
75152	34 MM CHAIN CONNECTOR (RUDD)	102	E0 4E1	DC	EA	10
37067	102298/98 E- BOLTS	102	E0 5H1	DC	EA	13
79649	104259/44 HAMMER , AMERICAN	102	3A 04E	CW	EA	13
37069	219259/00M LOCKNUTS, ATTN. PURCHASING, W	102	E0 5G1	DC	EA	21
37069	219259/00M LOCKNUTS, ATTN. PURCHASING, W	102	2A 10E	CW	EA	50

MAT ID	DESCRIPTION	CLASS	BIN	STK RM	UM	QOH
83205	08-00941 DUMP VALVE CABLE	128	3D 13A	CW	EA	1
83225	07-00513 RAM TRANSDUCER CONNECTOR	128	E1 1A3	DC	EA	1
83353	11-01648 60 MM RETAINING PIN-LINE SHEILD	128	E0 9D6	DC	EA	1
83355	11-00677 60 MM X 165 PIN-LINE RAM	128	E0 9D7	DC	EA	1
83359	66203342 PIN STAPLE HD DIA 30-GATE SHEIL	128	E0 9D8	DC	EA	1
83892	100017159 INSHIELD COMMUNICATION CABLE 1	128	3D 13C	CW 600	EA	1
84001	66031708 CHECK VALVE	128	E1 3B5	DC 600	EA	1
84034	25-00174 BLOCK VALVE	128	E1 3A6	DC 600	EA	1
84879	66069320 STAPLE	128	E0 9A5	DC	EA	1
85179	19-00721 SPRAGUE CYLINDER HOUSING	128	J0 5E1	DC 600	EA	1
85496	36103048 4 CORE CABLE ASSY	128	E0 6C1	DC	EA	1
86043	08-00951 CABLE ASSY RW 19W 10 METER	128	3D 06N	CW	EA	1
87279	66045800 VALVE CARTRIDGE	128	E0 6C2	DC	EA	1
87280	66045828 VALVE CARTRIDGE	128	E0 6C3	DC	EA	1
87672	POWER SUPPLY MODEL ISS-13.0-6.80-AL1	128	5G 03A	CW 600	EA	1
87938	66161345 PRESSURE SWITCH ASSY.	128	E0 7D5 B	DC	EA	1
89720	07-00671 REED SWITCH TRANSDUCER	128	3G 02A	CW 600	EA	1
90742	08-01610 CABLE, PSIU POWER SUPPLY, 5M	128	E0 7C5	DC	EA	1
90743	08-01609 CABLE, PSIU SIMI	128	E0 7D6	DC	EA	1
90799	26-01163 COMPAK 10	128	1A 08D	CW 600	EA	1

94048	20-00511 MAGNETIC TUBE	128	E1 2I3	DC	EA	1
94843	100177786 ACK UNIT, CONTROLLER, ROOF SUP	128	E1 2D1	DC	EA	1
94844	100177783 SYNC UNIT, CONTROLLER ROOF SUP	128	E1 2D3	DC	EA	1
94845	100291501 SOLENOID TRANSDUCER UNIT, (STU	128	E1 3E2	DC 600	EA	1
94858	100379574 CABLE, JUMPER, 130 FT	128	J0 5A1	DC	EA	1
95060	100177789 BARRIER UNIT	128	E1 3B4	DC 600	EA	1
96065	100180335 (422) CONVERTER	128	E1 3B7	DC 600	EA	1
83207	08-01042 RAM TRANSDUCER CABLE	128	3D 13G	CW 600	EA	2
83461	26-01099 CHECK VALVE LEFT HAND	128	F1 0D1	DC 600	EA	2
83480	100009846 CYLINDER SLUFFAGE PLATE (GUYM	128	E1 3I2	DC 600	EA	2
83564	66045885 YIELD CAPSULE ASSEMBLY 379 BAR	128	E1 3B1	DC 600	EA	2
83930	06-01507 SOL. TRANS. UNIT	128	3D 13G	CW 600	EA	2
83931	26-01233 BALL VALVE KIT	128	E1 1A8 B	DC	EA	2
84011	66033976 ONE WAY RESTRICTOR	128	E0 9A2	DC	EA	2
84013	124316-04-60 DUMP VALVE MASTER W/O SOLO	128	E1 3F1	DC 600	EA	2
84281	08-01052 INTERSHIELD CABLE SHIELD TO SHI	128	3D 13C	CW 600	EA	2
85519	13-00052 CANOPY CAM RETAINER	128	E0 9C7	DC	EA	2
85520	99-00481 LEG RETAINER HOSE CLIP	128	E0 9C5	DC	EA	2
85521	99-00484 LEG RETAINER HOSE CLIP	128	E0 9C6	DC	EA	2
86106	26-00509 PRESSURIZING VALVE	128	F1 0D3	DC 600	EA	2
86211	26-01211 RAPID YEILD VALVE ASSEMBLY	128	5G 03C	CW 600	EA	2
87111	66014913 RESTRICTOR NW10	128	E0 9A3	DC	EA	2
89915	27-00476 RETAINER	128	E0 9A8	DC	EA	2
91475	EP000065 IR TRANSMITTER P.S, 1.8M CABLE	128	E1 2A1	DC	EA	2
94804	100185632 SHIELD CABLE RS20S	128	E1 2H1	DC	EA	2
94837	100217844 RS20S SHIELD CONTROLLER (MIMI	128	E1 3E1	DC 600	EA	2
94841	100173398 REED ROD	128	E1 2C3	DC	EA	2
94847	100175969 CABLE, 5M,ADV RAM TRANSDUCER	128	E1 2D2	DC	EA	2
94848	100229531 CABLE MICRO-MICRO/ADJ BARRIER,	128	E1 2B2	DC	EA	2
94849	100175965 CABLE, MICRO-MIMIC, 3M	128	E1 2F3	DC	EA	2
94850	100198932 CABLE, MICRO-STU, 2.4M	128	E1 2C2	DC	EA	2
94851	100175970 CABLE, R/W, 10M	128	E1 2A2	DC	EA	2
94852	100185634 CABLE, MICRO-MICRO STAGGER, 8.	128	E1 3G1	DC	EA	2
94853	100175953 CABLE, MICRO RW1-MIMIC/RS422 7	128	E1 2F1	DC	EA	2
94854	100175956 CABLE, MICRO RW1-SYNC, 1M	128	E1 2C1	DC	EA	2
94855	100213674 CABLE, SYNC-POWER SUPPLY, 6M	128	E1 2E1	DC	EA	2
94856	100379750 CABLE, JOS-RS422, 6M	128	E1 2I1	DC	EA	2
94857	100236014 CABLE, MICRO RW1-DUMP VALVE, 1	128	E1 2B1	DC	EA	2
83153	26-01062 BOOST VALVE	128	E1 3A3	DC 600	EA	3
83206	08-01040 LEG TRANSDUCER CABLE	128	3D 13J	CW 600	EA	3
83301	06-00843 INFRA RED MONITOR	128	5G 04E	CW 600	EA	3
83439	66060691 STAB RAM VALVE	128	E1 3D1	DC 600	EA	3
83974	07-00674 RAM ADVANCE TRANSDUCER	128	3G 02C	CW	EA	3

				600		
84936	66143832 HMU FILTER ELEMENT	128	5G 03E	CW 600	EA	3
87346	66028611 GASKET PLATE	128	E0 7D5 A	DC	EA	3
94840	100196117 MICRO	128	E1 3E3	DC 600	EA	3
83092	06-01288 SIMM SHIELD INTERFACE MODULE	128	3D 13L	CW 600	EA	4
83130	66069318 STAPLE DA RAM	128	E0 9A4	DC	EA	4
83131	11-01014 PIN DA RAM	128	E0 9D3	DC	EA	4
83140	761-3640-Y8 DOG BONE ASSY	128	E0 5J2	DC	EA	4
83173	20-00474 SPHERICAL FOOT	128	E0 9D1	DC	EA	4
83228	66070722 PUSH CANCEL SPOOL	128	E1 1A4	DC	EA	4
83341	04-00774 SHIELD RETAINER PIN	128	E0 9D5	DC	EA	4
83403	04-00431 NUT PLATE	128	E0 9C3	DC	EA	4
83448	11-01613 LEG RETENTION PIN	128	E0 9A1	DC	EA	4
85414	66014888 RESTRICTOR ASSEMBLY	128	E0 9B4	DC	EA	4
85518	13-00051 LEG RETAINER	128	E0 5C3	DC	EA	4
94870	100078522 SOLENOIDS (NEW STYLE)	128	E1 3D4	DC 600	EA	4
83208	08-01053 INTERSHIELD CABLE SHIELD TO SHI	128	3D 13N	CW 600	EA	5
83394	11-00458 LOCKING BOLT	128	E0 9E2	DC	EA	5
83404	11-00305 M30 X 160 LONG BOLT	128	E0 9E4	DC	EA	5
84155	925441-1624 M 16 X 50 HHCS CL10.9	128	3D 03E	CW	EA	5
90067	27-00169 O RING	128	E0 9E1 E	DC	EA	5
94846	100175952 CABLE, 600MM, MICRO-BARRIER/AC	128	E1 2E2	DC	EA	5
83162	1069428-111 RETAINING PIN	128	E0 9B3	DC	EA	6
83175	20-00745 M20 CLAMP SCREW	128	E0 9D2	DC	EA	6
83220	08-01041 SPRAG TRANSDUCER CABLE	128	3D 12L	CW 600	EA	6
83220	08-01041 SPRAG TRANSDUCER CABLE	128	3D 13A	CW	EA	6
83406	66094932 NUT M30	128	E0 9C1	DC	EA	6
84937	66143732 HMU FILTER ELEMENT ASSY	128	5G 03E	CW 600	EA	6
85279	12105067 O RING FOR BOOST VALVE	128	E0 9E1 R	DC	EA	6
85326	66041573 PILOT OPER. CONTROL VALVE ASSY.	128	E1 3A5	DC 600	EA	6
88210	12105018 O RING	128	E0 7D3 A	DC	EA	6
88212	66202056 PRESSURE SEAT	128	E0 7D3 C	DC	EA	6
90798	26-01185 ASSY PRESSURISING VALVE	128	E1 1A9	DC	EA	6
83228	66070722 PUSH CANCEL SPOOL	128	E1 3A1	DC 600	EA	7
88632	12100117 O RING	128	E0 9E3	DC	EA	7
83916	07-00504 LEG TRANSDUCER	128	E1 3A4	DC 600	EA	8
84207	66173219 O RING	128	E0 9E1 I	DC	EA	8
84767	66041371 PILOT OPER. CONTROL VALVE ASSY.	128	E1 3D2	DC 600	EA	8
88196	26-01232 DN20 BALL VALVE KIT	128	E1 1A8 A	DC	EA	8
83395	66170100 SPRING WASHER	128	E0 9C2	DC	EA	9
84007	12100216 O-RING	128	E0 9E1 C	DC	EA	9
85280	12105022 O RING FOR BOOST VALVE	128	E0 9E1 O	DC	EA	9
94871	100078554 CAP SCREW FOR NEW SOLENOIDS	128	E1 2G4	DC	EA	9
83187	66169812 LYNCH PIN	128	E0 9C4	DC	EA	10

83305	66069426 SPOOL VALVE	128	E1 3C1	DC 600	EA	10
83397	24-00308 O-RING	128	E0 9E1 F	DC	EA	10
84303	12105010 O-RING 12.1MM INSIDE DIAMETER X	128	E0 9E1 D	DC	EA	10
84907	12105014 O-RINGS	128	E0 9E1 Q	DC	EA	10
87122	66208413 FUSE FOR IPS, HRC 250MA 20X5	128	3D 05G	CW	EA	10
84205	66173217 O RING	128	E0 9E1 K	DC	EA	11
84882	66045863 BLOCK YEILD VALVE 320 BAR	128	E1 3C2	DC 600	EA	11
84154	925081-160 M 16 LOCK WASHER	128	3D 03G	CW	EA	12
88211	66202052 VALVE SEAT	128	E0 7D3 B	DC	EA	12
94888	28-00081 HYDRAFUSE STRAIGHT	128	E1 2H2	DC	EA	12
84208	66173112 BACK UP RING	128	E0 9E1 S	DC	EA	13
84985	910660-22 O RING FOR INSHIELD CABLE	128	E0 9E1 A	DC	EA	13
84986	66173636 O RING FOR RELIEF VALVES	128	E0 9E1 T	DC	EA	13
85277	66174656 BACK UP RING FOR BOOST VALVE	128	E0 9E1 L	DC	EA	13
83387	66173603 O RING FOR SOLONOID VALVE	128	E0 9E1 J	DC	EA	15
84157	925441-2028 M 20 C 70 HHCS CL10.9	128	3D 07E	CW	EA	15
84206	66023653 O RING	128	E0 9E1 B	DC	EA	15
84542	66173473 O RING SIMM CABLE	128	E0 9E1 G	DC	EA	15
83306	28-00039 HYDRAFUSE 135 DEGREE	128	E1 1A7	DC	EA	16
83932	66167956 SOCKET HEAD CAP SCREW 16MM	128	E0 9E1 H	DC	EA	16
87236	925091-50 COLLAR WASHER, FOR SOLENOID VA	128	E0 9E1 M	DC	EA	16
84151	925441-1234 M 12 X 110 HHCS CL10.9	128	3D 03C	CW	EA	18
84160	925498-3600 M 36 WASHER	128	3D 03C	CW	EA	18
84152	925441-3635 M36 X 120 HHCS CL10.9	128	3D 02L	CW	EA	19
84271	925498-3000 M 30 WASHER FOR BASE LIFT P	128	3D 04A	CW	EA	24
84150	925435-1200 M 12 HEX NUT	128	3D 03G	CW	EA	30
84164	925498-2400 M 24 WASHER	128	3D 04A	CW	EA	32
83174	11820209 SPRING TENSION PIN M6X60MBS	128	E0 9D4	DC	EA	34
84988	24-00408 BACK UP RING FOR RELIEF VALVE	128	E0 9E1 P	DC	EA	38
83062	11-01579 BREAK AWAY PIN LINE	128	E1 0J1	DC	EA	42
84153	925441-3637 M36 X 140 HHCS CL10.9	128	3D 02L	CW	EA	43
84987	66173239 O RING FOR RELIEF VALVES	128	E0 9E1 N	DC	EA	44
83401	925441-3639 M36 X 160	128	3D 01L	CW	EA	63
84158	925441-3636 M36 X 130 HHCS CL10.9	128	3D 02L	CW	EA	85
84156	925441-2433 M 24 C 100HHCS CL10.9	128	3D 02E	CW	EA	117
84149	925081-200 M20 LOCK WASHER	128	3D 04A	CW	EA	239
83402	925081-360 M36 LOCK WASHER	128	3D 03L	CW	EA	327

About this Industry

Industry Definition

Operators in this industry mine various types of coal, and this will often occur either underground or in surface pits. Most coal mines consist of bituminous coal or anthracite (types of black coal), but companies might excavate lignite (brown coal) as well. Industry operators also develop coal mine sites and prepare the coal for sale by washing, screening and sizing the material.

Main Activities

The primary activities of this industry are

Bituminous coal and lignite surface mining

Bituminous coal and lignite underground mining

Anthracite mining

The major products and services in this industry are

Anthracite

Bituminous coal

Lignite

Sub-bituminous coal

Similar Industries

21211 Coal Mining in the US
Operators in this industry mine various types of coal, either underground or in surface pits.

32419 Lubricant Oil Manufacturing in the US
Establishments in this industry manufacture coke oven products.

33111 Iron & Steel Manufacturing in the US
Operators in this industry manufacture coal products in steel mills.

Additional Resources

For additional information on this industry

www.eia.gov
US Energy Information Administration

www.usitc.gov
US International Trade Commission

www.sec.gov
US Securities and Exchange Commission

www.worldcoal.org
World Coal Association

Industry at a Glance

Coal Mining in 2015

Key Statistics Snapshot

Revenue	Annual Growth 10-15	Annual Growth 15-20
$42.4bn	-2.8%	0.5%
Profit	Exports	Businesses
$3.4bn	$11.6bn	578

Market Share

Peabody Energy Corporation 9.1%

Alpha Natural Resources 7.8%

Arch Coal Inc. 7.1%

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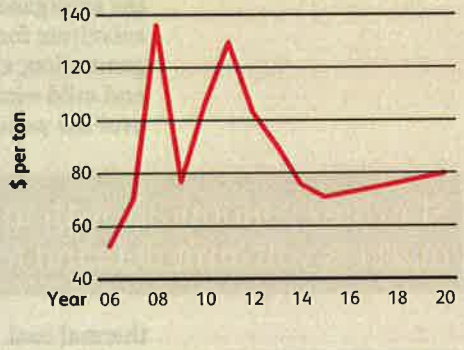
Key External Drivers

- World price of steaming coal
- Electric power consumption
- World price of coking coal
- Trade-weighted index
- GDP of mainland China

p. 4

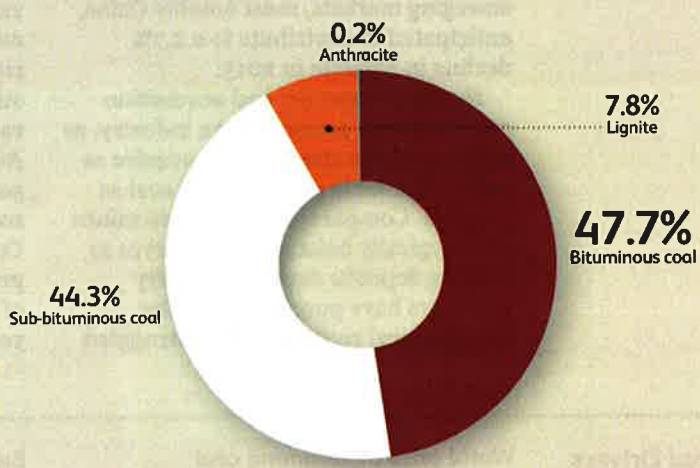
Revenue vs. employment growth

World price of steaming coal



SOURCE: WWW.IBISWORLD.COM

Products and services segmentation (2015)



SOURCE: WWW.IBISWORLD.COM

Industry Structure

Life Cycle Stage	Mature	Regulation Level	Heavy
Revenue Volatility	High	Technology Change	Medium
Capital Intensity	High	Barriers to Entry	High
Industry Assistance	None	Industry Globalization	High
Concentration Level	Low	Competition Level	High

FOR ADDITIONAL STATISTICS AND TIME SERIES SEE THE APPENDIX ON PAGE 36

Industry Performance

Executive Summary

The Coal Mining industry has been volatile over the five years to 2015, with revenue expected to decline at an annualized rate of 2.8% to $42.4 billion over the period. The prices of thermal and metallurgical coal surged from recessionary lows over the period, peaking in 2011. Price volatility was influenced by Australian coal reentering the global market after the 2011 floods, the emergence of natural gas as a substitute for coal in electricity generation, a slowing Chinese economy and mild winters in the United States over the period that reduced demand for thermal coal. Consequently, coal stockpiles have remained high around the globe, with slowing demand from emerging markets, most notably China, anticipated to contribute to a 2.7% decline in revenue in 2015.

Slowing economic growth in major global markets will limit demand for coal

Significant merger and acquisition activity is also present in the industry, as operators have attempted to acquire as much affordable metallurgical coal as possible. Companies that operate mines must typically bolster their reserves as existing deposits deplete. Industry operators have purchased smaller metallurgical coal mines that struggled during the recession. Moreover, metallurgical coal from the United States is in high demand due to its relatively superior quality over coal found in most other countries. Emerging economies have demanded metallurgical coal (i.e. coal needed for steel production) at accelerating rates, boosting exports over the past five years. Consequently, industry operators have had to scramble to expand through acquisitions.

Coal prices are expected to grow slightly in the five years to 2020, as slowing economic growth of major global markets (e.g. China) places downward pressure on product prices. Slower growth in emerging economies will also hurt demand for US metallurgical coal and cause prices to experience sluggish growth. Furthermore, natural gas will continue to erode coal demand over the next five years, as the appetite for alternative sources of electricity is expected to expand globally. Although demand from emerging economies is not expected to rival prerecessionary levels, they will still demand metallurgical coal at high rates to satisfy steel requirements. Additionally, the consumption of electric power is projected to expand, offering some relief to industry operators. Consequently, industry revenue is projected to grow at an annualized rate of only 0.5% to $43.4 billion in the five years to 2020.

Key External Drivers

World price of steaming coal

Industry players mine steaming coal (i.e. thermal coal), which is used mainly for electricity production. Over 90.0% of US coal production consists of steaming coal. Moreover, higher steaming coal prices tend to increase industry revenue and profit. The world price of steaming coal is expected to decline in 2015, which is a potential threat for the industry.

Electric power consumption

Demand for coal in the United States depends heavily on electricity demand, which is a key determinant of coal usage. More than half of the coal produced in the United States is consumed to produce electricity, so any upward trends in the electric power market positively affect operators. Electric power consumption is expected to decrease in 2015.

Industry Performance

Key External Drivers continued

World price of coking coal

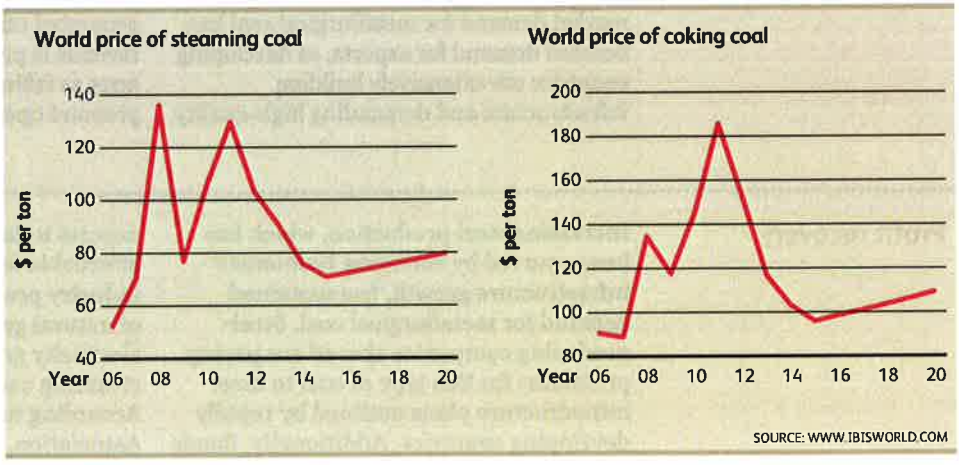
Demand for coking coal (i.e. metallurgical coal) is a key determinant of industry performance and is primarily driven by steel production. Increasing coal prices indicate a rise in demand. Additionally, higher prices can typically translate into increased industry revenue and profit. The world price of coking coal is expected to decline in 2015.

Trade-weighted index

Coal miners have increasingly relied on exports for revenue, particularly as international demand for steel-manufacturing facilities grows. The trade-weighted index measures the strength of the US dollar against other major currencies. Any increase in the strength of the US dollar makes domestic goods more expensive for foreign customers, which could reduce demand for US coal. The trade-weighted index is expected to increase over 2015.

GDP of mainland China

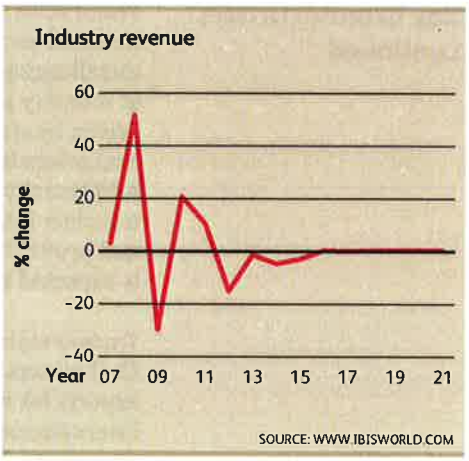
China's GDP growth is a good proxy for the development of emerging economies. These economies demand metallurgical coal for steel used in infrastructure development and steaming coal for electricity generation. As a result, higher GDP growth for China leads to greater demand for coal, ultimately benefiting the industry. GDP growth of mainland China is expected to increase in 2015, though Chinese growth still represents an opportunity for the industry.



Industry Performance

Current Performance

The Coal Mining industry has been fending off competition from increasing natural gas production and environmental criticisms over the past five years. Revenue is expected to decline at an annualized rate of 2.8% to $42.4 billion in the five years to 2015, as weak prices of thermal and metallurgical coal have negatively impacted operators' performance. The emergence of lower cost natural gas, a trend encouraged by hydraulic fracturing and horizontal drilling techniques in the Oil and Natural Gas Extraction industry (IBISWorld Report 21111), has increased competition for the industry. However, this trend is not expected to immediately displace demand for coal because coal still maintains a higher return on energy investment, a measure of the amount of energy produced per unit of energy expended. Emerging market demand for metallurgical coal has boosted demand for exports, as developing countries are extensively building infrastructure and demanding high-quality, steel-making coals at increasing rates. Additionally, as the US economy has emerged from the recession, demand for electricity has driven demand for coal-generated utilities. Nonetheless, industry revenue is projected to decline 2.7% in 2015 as falling coal prices continue to pressure operators.



Profit recovery

Increasing steel production, which has been spurred by emerging economies' infrastructure growth, has sustained demand for metallurgical coal. Steel-producing companies abroad are paying premiums for this type of coal to meet infrastructure plans outlined by rapidly developing countries. Additionally, floods in major mining regions of Australia propelled foreign demand for US coal in 2011. Consequently, industry players have experienced higher pricing for coal over the past five years, driving revenue growth. However, as Australian production rebounded in 2012 and economic growth in China slowed, decreasing world prices took a brutal toll on the US Coal Mining industry, with price declines of 20.3% for thermal coal and 18.2% for metallurgical coal over the same year. Furthermore, the rising trade-weighted index in 2012 caused exports to fall, as US coal became less affordable for foreign buyers, hurting industry profit. Furthermore, as the use of natural gas has increased among electricity generators, demand for steaming coal has experienced a decline. According to the Energy Information Association, total coal consumption in the United States has declined at an annualized rate of 2.4% in the five years to 2015; the electric power sector's coal consumption is projected to decrease at a similar rate over the same period.

Industry profit has also declined in the past five years as a result of weak coal prices. However, as international demand for metallurgical coal has increased, many industry operators accelerated production of this coal in the past five years. Since metallurgical coal is priced higher than thermal coal, this trend has bolstered profit to a marginal extent. Additionally,

Industry Performance

Profit recovery continued

thermal coal producers have shifted resources or purchased companies that hold large reserves of metallurgical coal. Increased expansion has also resulted in the extraction of a higher volume of metallurgical coal, which has flowed into companies' bottom lines.

To take advantage of economies of scale and help boost profit in difficult times, heavy merger and acquisition activity has occurred. As companies expanded through these restructuring efforts, they were able to benefit from streamlining operations beneath one organization. For example, major player Alpha Natural Resources purchased Massey Energy, while major player Arch Coal acquired International Coal Group. As a result of acquisitions, the number of operators is expected to decline at an average annual rate of 2.7% to 578 companies over the five years to 2015. However, operators have had to boost wages to attract and maintain talent due to competition from other mining sectors. Wages are projected to rise at an annualized rate of 0.6% to $6.7 billion over the five years to 2015.

Increasing demand

After the recession, demand for electricity has grown as businesses and consumers' usage has increased. Consequently, electricity generation companies are ordering thermal coal at higher rates. While demand for thermal coal has increased, many utilities-generation companies have alternatively switched to renewable fuels and natural gas. According to the US Energy Information Administration, the share of renewable fuels in energy generation is forecast to grow from 10.0% in 2010 to 16.0% by 2035. This trend has reduced demand for some industry players, with companies responding by exporting thermal coals abroad to China and Brazil, where electricity demand continues to rapidly grow.

Moreover, natural gas has been increasingly challenging coal's role in power generation. Low prices and the looming threat of stricter carbon emission regulations have made natural gas attractive for electricity power generators. Furthermore, the emergence of hydraulic fracturing and horizontal drilling on an expanded scale has increased the available supply of natural gas. Though electricity-generation companies have also explored other routes in an effort to reduce greenhouse gas emissions, these methods are unlikely to be able to compete with natural gas generation. Thus, the combination of low prices and impending environmental legislation threatens demand for coal, as electricity companies have increasingly invested in natural gas.

> Demand for electricity has grown as businesses and consumers' usage increased

Electricity-generation companies are also increasingly switching to low-sulfur-emitting coals to reduce greenhouse gas emissions. Such coals are typically produced in the western regions of the United States. Still, there are some shortfalls to such coals because these types have lower heat content and are less efficient in generating electricity. In other words, there is less heat generated per unit than there is with high-heat coal.

Industry Performance

Global pressures

In the international arena, other coal-producing countries, such as Australia, South Africa, Colombia and Venezuela, have increased production and, in turn, expanded industry competition. Competitive pricing, along with favorable currency exchange rates in the early 2000s, enabled these countries to obtain a growing share of traditional US export markets. These factors are capping market expansion for US coal and placing strong competitive pressures on domestic producers to keep coal prices low, relative to other fuels. Despite this trend, industry operators that experienced dwindling energy markets domestically during the recession have shifted production to meet demand for metallurgical coal from emerging economies. In particular, operators have mined more metallurgical coal to meet rising steel production demand from China and Brazil. As a result, industry exports have increased at an average annual rate of 1.3% to an estimated $11.6 billion in the five years to 2015. This growth, however, has been underpinned by a relatively weak US dollar and strong demand for coal abroad, especially from emerging economies. Conversely, imports are expected to plummet at an annualized rate of 13.9% to $728.2 million over the same period. This decrease is expected to be the result of increasing domestic production and consumption of natural gas.

Industry Outlook

The Coal Mining industry is anticipated to grow in the next five years, although it will continue to face challenges. Moreover, industry growth is forecast to be modest, partly due to projected economic slowdowns in Brazil, Russia, India and China, where the economies serve as important indicators of global trends. Although demand for steel, and therefore metallurgical coal, from these countries is expected to remain high, demand is unlikely to rival prerecessionary levels. More specifically, an anticipated slowdown in China's economy will hurt the nation's demand for US metallurgical coal. Moreover, slower economic development in China will limit growth in electricity demand, which will then restrain the price of steaming coal. Furthermore, natural gas is expected to continue to erode coal demand over the next five years, as the preference for alternative sources of electricity is expected to grow worldwide. Despite these anticipated difficulties, metallurgical coal will still remain a high-demand product as emerging economies address infrastructure concerns by manufacturing steel, albeit at a slower rate. Consequently, the industry's revenue is projected to rise at a slower average annual rate of 0.5% to $43.4 billion in the five years to 2020.

> Strong demand from downstream customers will provide relief for industry operators

Although regulation for coal is projected to increase in response to mining accidents that occurred over the past five years, strong demand from downstream customers will provide relief for industry operators. Nonetheless, greenhouse gas concerns will continue to threaten industry demand as downstream customers increasingly switch to natural gas. Moreover, further industry consolidation is expected, albeit at a slower pace than the past five years, as operators continue to search for metallurgical coal. As demand from emerging economies grows, more companies will be interested in acquiring reserves. When prices for these types of coals increase, larger companies will generate greater profit and be able to acquire smaller competitors' operations. The number of industry operators is therefore

Industry Performance

Industry Outlook continued

forecast to decline at an average annual rate of 1.5% to 536 companies in the five years to 2020. Furthermore, to help boost profitability, industry operators are expected to minimize work force additions. Consequently, employment is expected to increase marginally in the five years to 2020, while wages are projected to increase at an annualized rate of 0.4% to $6.9 billion over the period.

Price fluctuations

Thermal coal prices are expected to rise over the next five years, albeit slowly, as emerging economies expand at moderate rates. In addition, the Appalachian Basin has some of the highest-grade metallurgical coal in the world, which will be sought after by importers of US coal. Fast-growing economies will increasingly look to the United States for high-quality coal to meet domestic demand, a trend that will effectively place upward pressure on coal prices. In addition to increased interest in US metallurgical coals, the low-sulfur thermal coals sought by electricity generators will continue to attract buyers. Coal mined in Wyoming and other mines in the western United States will be an attractive segment for industry operators because mining in these regions is relatively cheap.

Coal prices are expected to grow over the next five years, although excess capacity and increasing competition will moderate the increases. Moreover, overseas competition is expected to intensify in emerging economies. For example, as production picks up in Australia, producers there will be able to better supply China. In turn, this trend will place downward pressure on US coal prices. In the five years to 2020, imports are expected to decline at an annualized rate of 1.6% to $673.0 million, while exports are expected to grow at an annualized rate of 3.0% to $13.5 billion over the same period.

Environmental concerns

Environmental concerns will significantly affect the industry over the five years to 2020. Anxieties related to the range of possible measures regarding the reduction of greenhouse gas emissions will influence coal investment in the long-term. As with the previous five years, electricity generators will continue to switch to lower-carbon fuel sources in an attempt to control greenhouse gas emissions, adversely affecting demand for coal. Moreover, natural gas will emerge as the fastest-growing electricity generation source due to environmental concerns and historically low prices. Additionally, investment in clean-coal technologies as a result of such regulatory concerns will not likely be cost effective over the next five years, further supporting the shift to natural gas and, consequently, hurting industry profit margins. Profit in the Coal Mining industry is largely tied to external competition and coal pricing; as a result, when competition intensifies or prices plummet, profitability suffers. In the five years to 2020, competition is projected to increase, but moderate coal price growth is expected to limit expected declines in profit.

> Concerns related to greenhouse gas emissions will influence coal investment

Nonetheless, despite environmental concerns, coal-based electricity generation will still be a large part of the US energy infrastructure and it is anticipated to remain cost effective enough to meet a

Industry Performance

Environmental concerns continued

major portion of domestic energy demand. Electricity generators will continue using coal to produce electric power, as demand from consumers and businesses rises. In addition to this transition to natural gas, electricity producers will increasingly explore the use of low-sulfur coal. Low-sulfur coal from the western part of the United States, especially the Powder River Basin in Montana and Wyoming, will likely continue gaining market share at the expense of traditional high-sulfur coal from coal-producing eastern states. Low-sulfur coals are often cheaper and more environmentally friendly than other types and also offer larger profit margins for industry players. With greater interest in this region, increased investment to expand production will follow. Since mining low-sulfur coals will provide a way to avoid imminent environmental regulations, industry players that have operations in these regions stand to benefit the most.

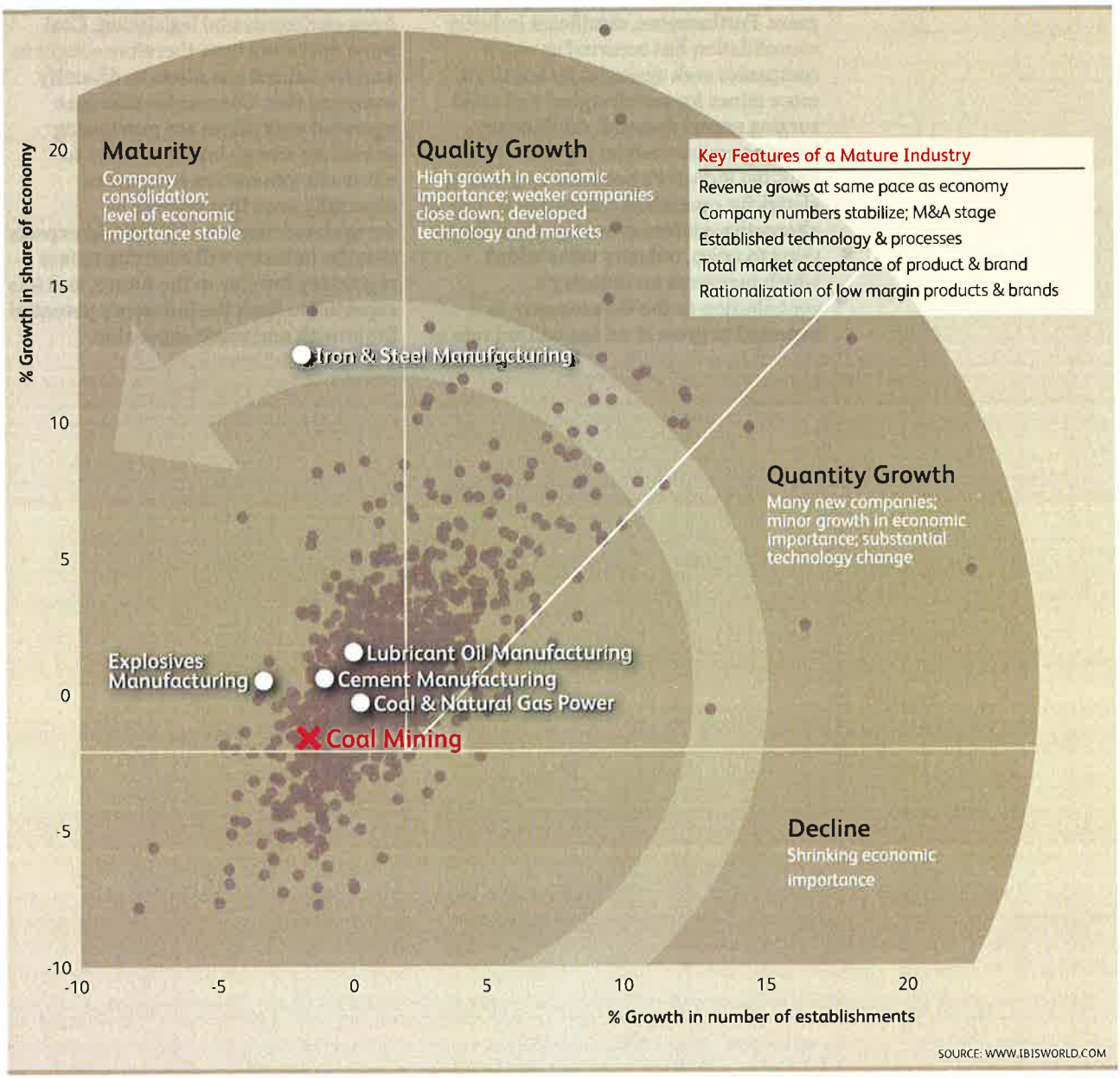
Industry Performance

Life Cycle Stage

The industry faces ongoing pressure from environmental legislation

Significant consolidation has taken place

The product is well-established



Industry Performance

Industry Life Cycle

This industry is **Mature**

The Coal Mining industry is in the mature phase of its life cycle, characterized by a well-established product, slowing production and significant consolidation. Coal is primarily used for electricity generation and steel production. The technology required to extract coal has not changed substantially over the past 20 years. Furthermore, significant industry consolidation has occurred as major companies seek synergies by acquiring more mines for metallurgical coal amid surging export demand. Additionally, looming environmental regulation will limit the industry's potential by pushing electricity generation companies to look to alternative sources of energy. Over the 10 years to 2020, industry value added, which measures an industry's contribution to the US economy, is expected to grow at an annualized rate of 1.6%, compared with average annual growth in US GDP of 2.5% over the same period. The slow value-added increase is largely due to the emerging demand for natural gas as a substitute for thermal coal and slowing demand from domestic and foreign markets.

The industry also faces ongoing threats from environmental legislation. Coal mine operators have therefore sought to acquire natural gas assets to diversify company risk. Companies that once operated only mines are purchasing substitute energy inputs to cater to electricity generation companies, especially ones that operate in deregulated markets. IBISWorld expects that the industry will continue to face regulatory hurdles in the future, and it is expected to limit the industry's potential for growth and profit expansion.

Products & Markets

Supply Chain | Products & Services | Demand Determinants
Major Markets | International Trade | Business Locations

Supply Chain

KEY BUYING INDUSTRIES

22111a **Coal & Natural Gas Power in the US**
Electricity generation accounts for over 90.0 % of coal use.

32731 **Cement Manufacturing in the US**
The Cement Manufacturing industry accounts for about 6.0 % of thermal coal use.

33111 **Iron & Steel Manufacturing in the US**
Nearly 3.0 % of coal production is used to make coke, an input to steel-making.

42352 **Coal & Ore Wholesaling in the US**
Companies operating in the US Coal and Ore Wholesaling Industry sell coal and coke products to downstream industries

KEY SELLING INDUSTRIES

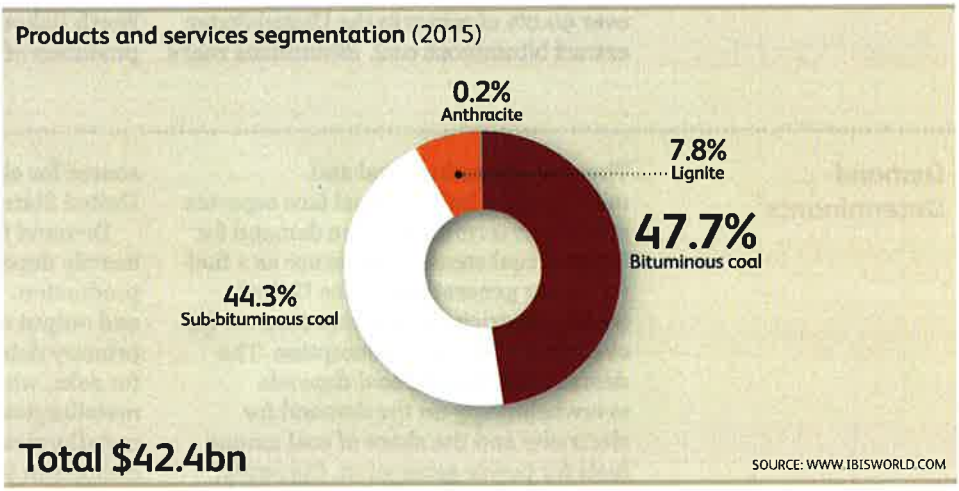
32592 **Explosives Manufacturing in the US**
Coal mining requires explosives.

33313 **Mining, Oil & Gas Machinery Manufacturing in the US**
Coal mining requires large-scale machinery for various mining activities.

42381 **Construction & Mining Equipment Wholesaling in the US**
Specialized machinery, equipment and related parts are generally used in coal mining activities.

42472 **Gasoline & Petroleum Wholesaling in the US**
Fuel is an input to coal mining.

Products & Services



Coal mine operators in the United States extract four primary types of coal, including lignite, subituminous, bituminous and anthracite. These coals vary in quality, and they are ranked according to their carbon content. Ultimately, these types of coal are modified into the two usage based categories of metallurgical and thermal coal. Metallurgical coal, or coking coal, is a key input into steel production, and thermal coal, or steaming coal, is primarily used a source of energy and heating.

Products & Markets

Products & Services continued

Anthracite and bituminous coal

These types of coal are the top two ranked coals based on carbon content. Anthracite has the highest carbon content and lowest level of impurities. Due to its purity, difficulty in mining and scarcity, Anthracite commands a premium over other types of coal and is primarily mined in Pennsylvania. Consequently, this type of coal is relatively too expensive for commercial use in many situations, especially for large scale power generation. In 2015, IBISWorld expects anthracite to count for an estimated 0.2% of coal production.

Bituminous coal follows anthracite in the coal rankings, and it accounts for the largest share of industry production, at an estimated 47.7% in 2015. This level has been relatively stable in the five years to 2015, only increasing slightly. Bituminous coal is primarily extracted in the eastern region of the United States, and the vast majority of industry establishments mine this type of coal. IBISWorld expects that over 90.0% of mines in the United States extract bituminous coal. Bituminous coal's relatively high carbon content and availability makes it an attractive option for both power generation and metallurgical uses.

Sub-bituminous and lignite

The lower tiers of coal include sub-bituminous and lignite. Sub-bituminous coal accounts for the second-largest share of industry production, at an estimated 44.3% in 2015. This level has declined slightly in the five years from 2010. IBISWorld estimates that nearly 90.0% of sub-bituminous coal production is located in Wyoming, and this trend has been steady in the five years to 2015. Sub-bituminous coal's primary function is as a steaming coal for power generation.

Lignite, frequently called "brown coal", is the lowest-ranked coal. Relatively undeveloped in comparison with the higher ranks of coal, lignite is expected to account for 7.8% of total production in 2015. This is an increase from 2010 levels, and lignite's primary use is in electric power generation. North Dakota and Texas are the primary producers of lignite coal.

Demand Determinants

Thermal (steaming) coal and metallurgical (coking) coal face separate demand determinants. The demand for thermal coal stems from its use as a fuel for power generation. In the United States, electricity generators account for over 90.0% of coal consumption. The demand for thermal coal depends overwhelmingly on the demand for electricity and the share of coal among fuels for power generation. Currently, coal-fired power stations generate about 42.0% of the electricity produced in the United States. However, natural gas is projected to account for an increasing share of energy production in the United States. According to the Energy Information Administration, natural gas will overtake coal as the largest energy source for electricity generation in the United States by 2040.

Demand for metallurgical coal is heavily dependent on levels of steel production. Trends in the demand for and output of pig iron and steel are primary determinants of global demand for coke, which is manufactured from metallurgical coal. Demand for metallurgical coal is also sensitive to changes in steel production methods. The higher the availability of steel scrap, the more incentive there is for steel production to be switched from blast furnaces to electric arc furnaces. Blast furnaces require coke (made from metallurgical coal) and iron ore as inputs, while electric arc furnaces are primarily scrap recycling operations and require

Products & Markets

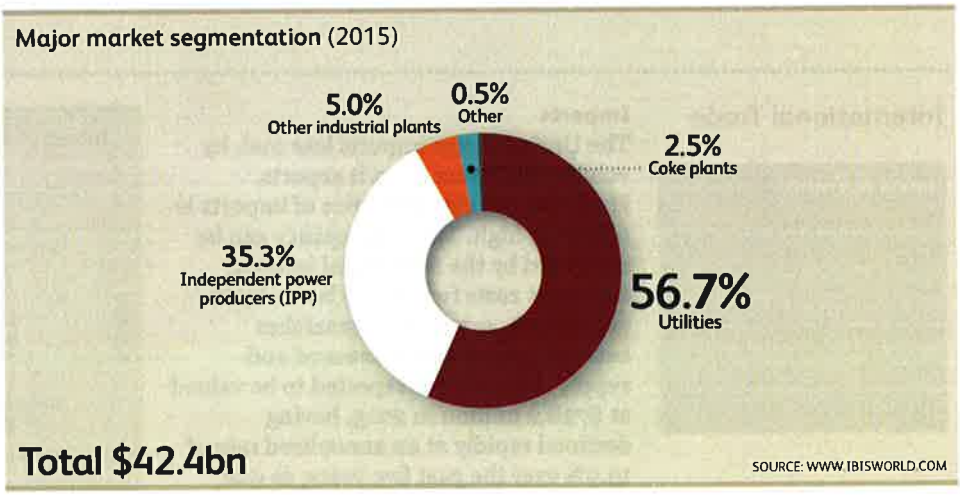
Demand Determinants continued

only minimal amounts of coke. If more steel producers use electric arc furnaces, demand for metallurgical coal decreases.

Furthermore, changes in blast furnace technology have an impact on the demand for metallurgical coal. For instance, a change in the volume of coke required to produce a given quantity of pig iron can have a dramatic impact on the demand for metallurgical coal. Coke requirements vary depending on the amount of oil or pulverized coal injected into the blast furnace.

Of the four ranks of coal that operators mine in the United States, bituminous and sub-bituminous experience the highest level of demand. This results from the combination of their relatively high carbon contents and high levels of production in the United States. Energy producers and coking coal producers can use both of these types of coal as inputs, and their relative abundance ensures that supply is stable. IBISWorld expects these trends to remain steady in the five years to 2020.

Major Markets



Utilities and independent power producers

The major user of coal in the United States is the Coal and Natural Gas Power industry (IBISWorld report 22111a), which is made up of utilities and independent power producers (IPP) and accounts for about 92.0% of total demand (by volume). Over the past five years, deregulation has paved the way for market-driven power plants, allowing IPPs to gain market share.

The share of coal consumption accounted for by electricity providers has remained relatively unchanged in the past five years; however, consumption of thermal coal (by volume) has declined during the five years to 2015, in response to growing reliance on renewable sources of energy. Nevertheless, recent price drops have provided an incentive for electricity generator companies to continue the use of coal as an input. Prices are anticipated to drop in 2015, which will help bolster demand. The world price of steaming coal is anticipated to rise by at an annualized rate of 2.4% in the five years to 2020, which could limit this segment's growth.

Coke plants and other

Coke plants account for about 2.5% of coal consumption, while other

Products & Markets

Major Markets continued

industrial plants constitute about 5.0%. Other uses (e.g. burning coal for heating) represent only about 0.5% of demand. The importance of the other, much smaller, market sectors has remained relatively steady during the past five years, although many companies switched to exporting metallurgical coal to meet emerging market demand. The production of metallurgical coal for export has increased during the past five years and is expected to be a substantial growth market segment for domestic producers. Meanwhile, coal use in other activities, such as cement production, has fallen in response to recession when the spending on construction plummeted.

Exports

In 2015, exports are expected to generate an estimated 27.4% of Coal Mining industry revenue, at $12.5 billion. Metallurgical coal constitutes the majority of exports; although it amounts to less than 10.0% of domestic production, this type of coal accounts for nearly 60.0% of exports by volume. In the five years to 2015, revenue from exports has expanded at an average annual rate of 1.3%, as emerging economies' demand for metallurgical coal has grown at strong rates.

International Trade

Level & Trend

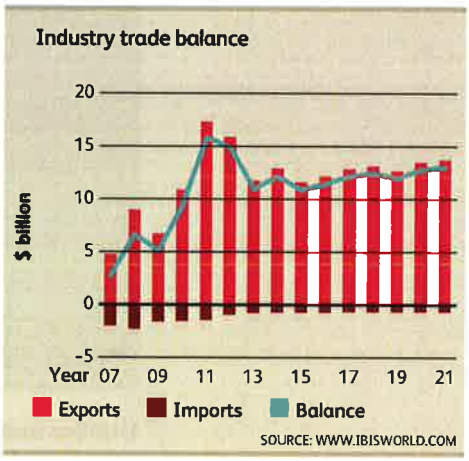
Exports in the industry are **High** and **Steady**

Imports in the industry are **Low** and **Decreasing**

Imports

The United States imports less coal, by volume and value, than it exports. However, the absolute price of imports is relatively high. This discrepancy can be explained by the substantial internal transport costs (which are borne by the purchaser), as well as mismatches between regional coal demand and supply. Imports are expected to be valued at $728.2 million in 2015, having declined rapidly at an annualized rate of 13.9% over the past five years, as coal from Wyoming (where coal is cheaper compared to most other regions) began to gain market share.

Colombia is the largest source of industry imports, accounting for an estimated 65.7% of total import demand in 2015. Other major suppliers are Canada, Indonesia and Venezuela. Most of the coal imported from Canada is metallurgical coal destined for steel manufacturers in the Great Lakes region. Other imports consist primarily of thermal coal destined for East coast power plants. This share has decreased over the past five years, as US industrial production has fallen. By far, the most important domestic market for coal is



electricity generation, which has historically accounted for over 90.0% of coal consumption in the United States.

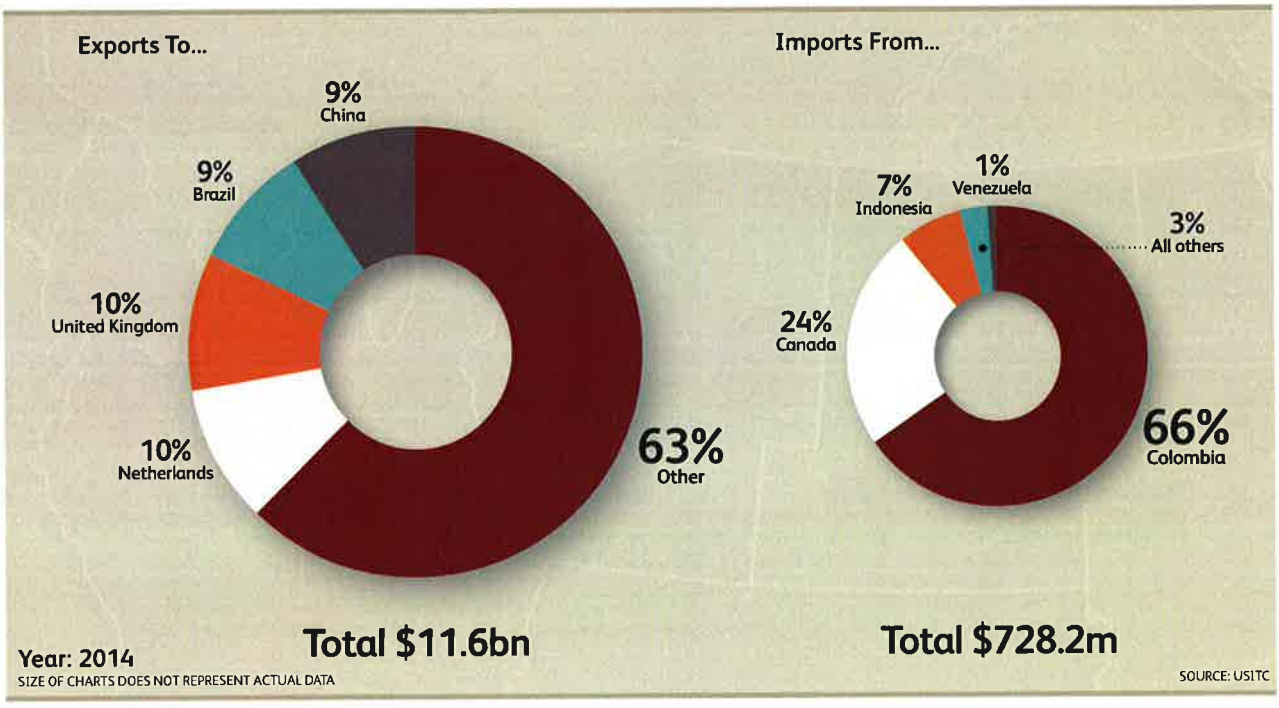
Exports

Major export markets include the Netherlands, China, the United Kingdom and Brazil. Substantial volumes of coal are also exported to various EU member countries, as well as to India. The industry is anticipated to export coal valued at $11.6 billion in 2015. Metallurgical coal accounts for nearly 60.0% of exports by volume, although it

Products & Markets

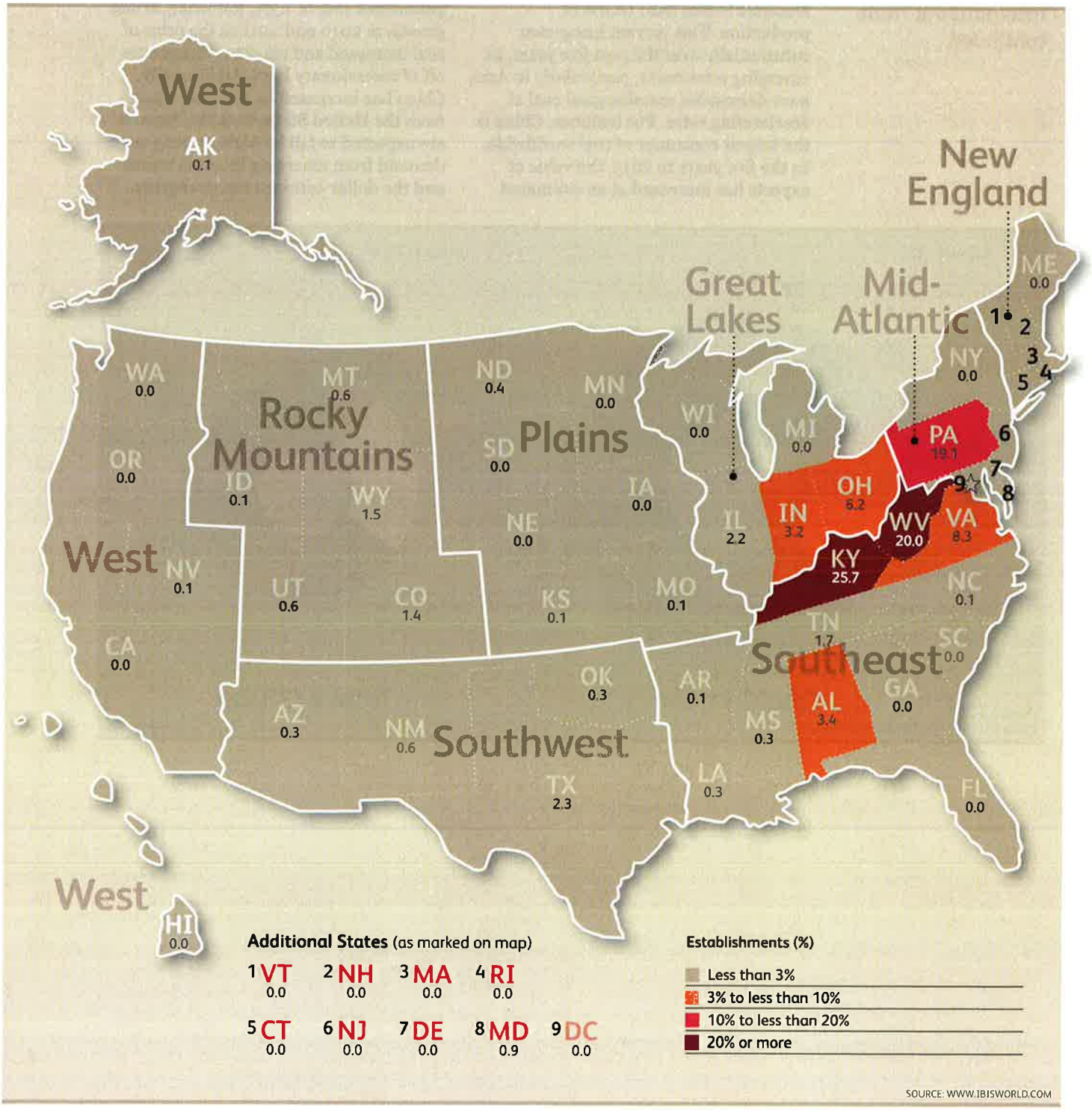
International Trade continued

amounts to less than 10.0% of production. This market has grown substantially over the past five years, as emerging economies, particularly in Asia, have demanded metallurgical coal at accelerating rates. For instance, China is the largest consumer of coal worldwide. In the five years to 2015, the value of exports has increased at an estimated annualized rate of 1.3%, following strong growth in 2010 and 2011 as the price of coal increased and export volumes rose off of recessionary lows. Additionally, China has increased its share of exports from the United States to 8.7%. Exports are expected to fall by 9.9% in 2015, as demand from emerging markets wanes and the dollar continues to strengthen.



Products & Markets

Business Locations 2015



Products & Markets

Business Locations

The importance of various regions in coal production largely reflects the availability of coal resources. Coal quality, accessibility and the cost of transport to market, however, all play an additional role in determining the timing of resource development. Typically, the most attractive (i.e. high-quality, easily accessible and cost-effective) coal resources are developed first. There is also a large difference between the regional concentration of industry establishments and each location's share of total industry production. Production distribution does not correlate with establishment distribution because coal resources and output vary drastically from mine to mine. For instance, although roughly 25.7% of the industry's establishments are located in Kentucky, it accounts for only 9.1% of production; in contrast, Wyoming, which has only 1.5% of establishments, is expected to account for about 39.3% of total US coal production in 2015.

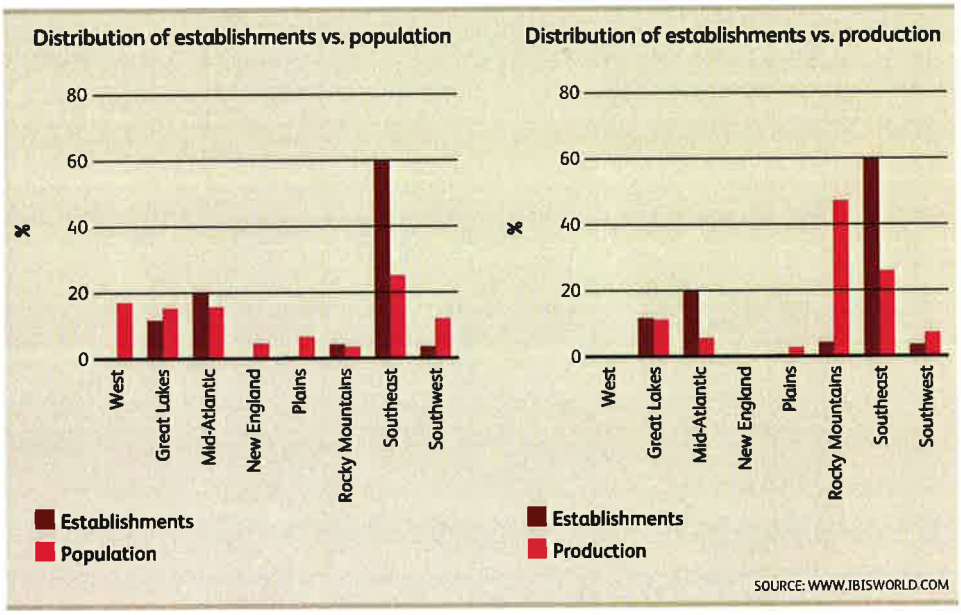
Rocky Mountains and Southeast

The Rocky Mountains region of the United States, which encompasses the largest coal-producing state of Wyoming, accounts for the largest share of coal production at about 47.2%. The coal mined in the Rocky Mountains is relatively low in sulfur, which makes it sought-after for power generation. As a result, coal output from the Rocky Mountains is growing strongly, more than offsetting falling production in other regions.

The second-largest coal-producing region is the Southeast, with about 25.9% of output. Its major producing states are West Virginia and Kentucky, which account for about 12.0% and 9.1% of total US production, respectively. Although thermal coal accounts for the bulk of production, small quantities of metallurgical coal are also mined. Coal mined in this region is higher in sulfur than the Rocky Mountains' coal, so power stations that burn it must be fitted with equipment (e.g. scrubbers) that remove sulfur from gases discharged to the atmosphere.

Other regions

Other regions are less substantial coal producers. The Great Lakes and Mid-Atlantic regions (about 11.2% and 5.6% of output, respectively) produce both



Products & Markets

Business Locations continued

thermal and metallurgical coal. The main producing states in the Great Lakes are Illinois and Ohio, while Pennsylvania accounts for almost all Mid-Atlantic coal output. Local steel producers use metallurgical coal that is mined in these regions. The Southwest accounts for 7.2% of coal production, with most output consisting of relatively low-sulfur thermal coal. The main producing states within the region are New Mexico and Texas. Almost all coal production from the Plains comes from North Dakota and consists of lignite (which has a higher water content and lower heating value) and thermal coal.

Competitive Landscape

Market Share Concentration | Key Success Factors | Cost Structure Benchmarks
Basis of Competition | Barriers to Entry | Industry Globalization

Market Share Concentration

Level
Concentration in this industry is **Low**

The four largest companies in the US Coal Mining industry account for an estimated 28.6% of industry revenue. Industry concentration has increased during the past five years. Coal mine operators have strived to acquire metallurgical coal to meet surging export demand, resulting in frequent merger and acquisition activity. Strong demand from Asia has underpinned this growth in demand; with surges in infrastructure-related investments in Asia, economies in this region are searching for the means to create steel. The industry's major players have thus looked to increase their holdings of metallurgical coal, which is needed to produce steel.

Although there are considerable economies of scale in coal mining, there are also substantial numbers of small and medium sized operators that generally operate on slimmer profit margins. Typically, these operators mine deposits that are smaller than those sought after by larger companies. Coal mining companies bought up smaller companies as coal prices soared during early 2008. At the same time, coal mining companies have been acquiring other companies that produce natural gas and other types of natural resources. Although this has not increased the market share in this industry, it is a telling trend; coal producers are diversifying their holdings to reduce the risk of the increased environmental regulation of coal and falling coal prices.

Major mergers and acquisitions over the past five years include: Alpha Natural Resources' acquisition of Foundation Coal Holdings in 2009 and Massey Energy Company in 2011; Consol Energy's acquisition of Dominion Resources in 2010; Arch Coal's acquisition of the Jacob's Ranch mine from Rio Tinto in 2009 and International Coal Group in 2011.

Key Success Factors

IBISWorld identifies 250 Key Success Factors for a business. The most important for this industry are:

Ability to find new resource deposits

Continued growth in output requires new resources as old ones are depleted. Successful companies will concurrently develop new resources while the production of other resources is winding down.

Having a large supply contract

Operators that have large supply contracts experience stable revenue and profit, providing a competitive edge amid volatile commodity price swings. Companies may otherwise be too exposed to volatility and can lose market share.

Availability of resource

Access to high quality coal deposits is an important determinant of success. Companies that have access to metallurgical coal will be particularly competitive given the high demand for this type of coal abroad.

Economies of scale

Companies that can lower operational costs by scaling will be more competitive and experience higher profit margins.

Cost Structure Benchmarks

Profit

Industry profit, calculated as earnings before interest and taxes, has increased over the past five years. However, this increase is largely due to the dramatic fall in profitability through the recession. Though the prices of industry products have recovered slightly in the five years to 2015, industry profit is expected to remain pressured. During

Competitive Landscape

Cost Structure Benchmarks continued

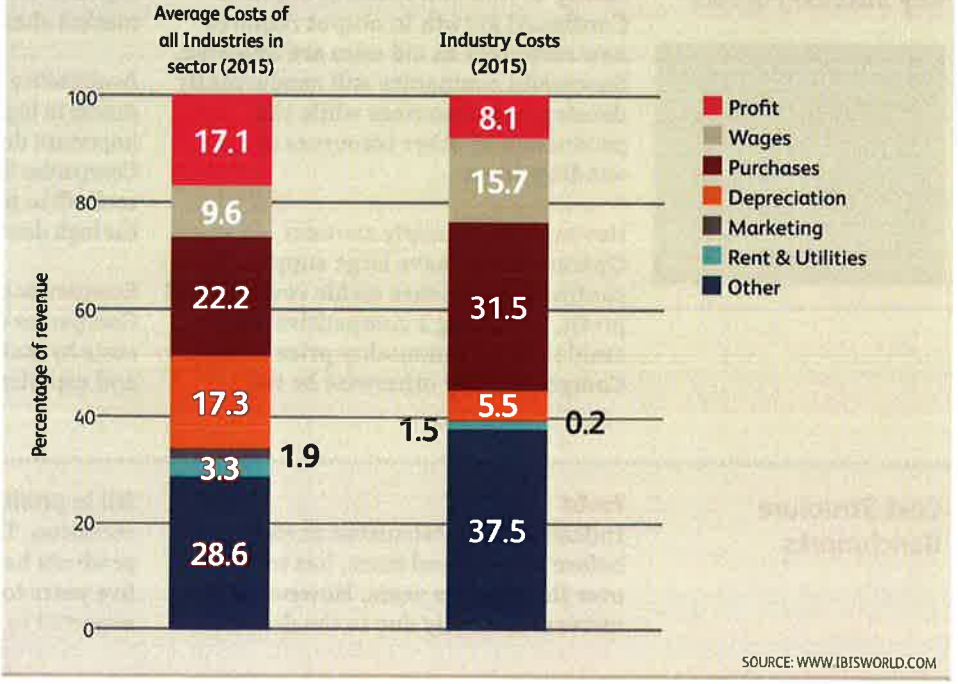
much of the five years to 2015 though, industry players have been purchasing small operators to access coal reserves to meet surging export demand for metallurgical coal. These acquisitions allow companies to increase their reserves and put them in a position to benefit from export demand. As a result, operations have expanded and the resulting synergies have benefited the industry's bottom line. Emerging economies have been demanding metallurgical coal at accelerating rates to support infrastructure investments that require steel and, in turn, metallurgical coal to create the steel. In 2015, profit is estimated to account for 8.1% of industry revenue.

Industry companies are also positioning themselves to export thermal coal (coal used for electricity production) to emerging economies. While US demand for thermal coal has grown slowly, industry operators are increasing exports of coal to growing economies with a healthy appetite for thermal coal. US coal exports are expected to rise at an average annual rate of 11.3% to $11.6 billion in the five years to 2015. However, much of this strong export growth is the result of the recession's negative impact on the industry.

Purchases, wages and other

The major cost faced by this industry relates to purchases of production inputs, such as explosives and consumable parts for mining equipment. In 2015, these purchases are estimated to account for 31.5% of revenue. The cost of these items has increased over the past few years, and moving forward they are expected to increase further as more advanced technologies become available. The cost of fuel has increased slightly as a share of revenue, due to much higher prices for

Sector vs. Industry Costs



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Competitive Landscape

Cost Structure Benchmarks continued

automotive diesel. Wage costs have increased as a share of revenue to 15.8% in 2015; however, coal prices and output have generally increased more rapidly than wage payments. Depreciation is expected to be 5.5% of industry revenue in 2015, down marginally from 5.7% in 2010. This decrease is expected to be the result of slowing investment in machinery.

Other operating costs incurred by coal mines include coal extraction and preparation costs (including overburden removal, mine shaft development, coal haulage and coal washing), rail or road freight, port charges and production taxes. Numerous factors influence the level of these costs, including the nature of an operation (open cut, underground using continuous mining equipment, or underground using longwall), the thickness of the coal seam, the depth and age of the mine, the size of the labor force, distance from the customer and the difficulty in extracting coal from the deposits.

Basis of Competition

Level & Trend
Competition in this industry is **High** and the trend is **Increasing**

Competition in the Coal Mining industry is primarily based on price. The price relevant to the buyer is the delivered price of the coal, which includes shipping costs. In general, the shorter the distance the coal must be shipped, the lower the shipping cost, and coal producers that are located close to major markets have a cost advantage. Additionally, companies that maintain lower operating and extraction costs can gain a competitive advantage in the industry.

Competition is also based on other factors, with quality being foremost. Coal with a relatively low level of impurities, such as sulfur, attracts a price premium and is less likely to suffer volume cuts if demand eases. Low-sulfur coal offers the user lower operating costs, as fewer impurities need to be removed in order to comply with environmental regulations.

Some quality factors are specific to the type of coal being produced. Purchasers of thermal coal are interested in its calorific value (a measure of heating power), as this determines its usefulness as a source of fuel for power generation. Generally, the higher the calorific value, the higher the price. For metallurgical coal, higher carbon content tends to attract a higher price and greater market acceptance. Security of supply is also an important consideration for purchasers of both metallurgical coal and thermal coal.

Barriers to Entry

Level & Trend
Barriers to Entry in this industry are **High** and **Steady**

There are substantial barriers to entry into the Coal Mining industry. A large amount of capital is required to develop a new mine, usually several hundred million dollars. Other barriers to entry include the lengthy approval process (such as environmental approval and licenses to explore and mine) and the ability to secure favorable contracts with end users.

The Bureau of Land Management (BLM), under the US Department of the Interior, presents additional barriers to entry. The BLM is responsible for coal leasing on about 570 million acres, where the federal government owns the coal

Competitive Landscape

Barriers to Entry continued

mineral estate. The land surface could be controlled by the BLM, the US Forest Service, private land owners, state land owners or other federal agencies. Coal leases are restricted to US citizens, US corporations and public bodies, including municipalities. Furthermore, area over which an individual or company may hold a coal lease is restricted to 75,000 acres in any one state and 150,000 acres in total. There are also requirements relating to coal production: a leaseholder is not permitted to acquire additional coal leases if they have held an existing lease for 10 or more years and have not commenced commercial production.

Barriers to Entry checklist	Level
Competition	High
Concentration	Low
Life Cycle Stage	Mature
Capital Intensity	High
Technology Change	Medium
Regulation & Policy	Heavy
Industry Assistance	None

SOURCE: WWW.IBISWORLD.COM

Industry Globalization

Level & Trend
Globalization in this industry is **High** and the trend is **Steady**

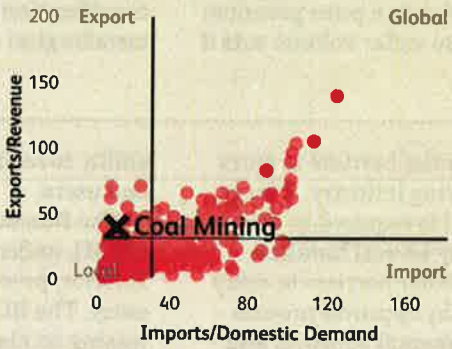
The Coal Mining industry has a high level of globalization. Nearly all the companies that operate in the industry are based in the United States, though a few are based overseas and have substantial operations in other countries (for example, Rio Tinto). The largest companies in the industry are the most likely to maintain foreign operations, due to the significant capital required to maintain and operate a mine. Meanwhile, the United States is not a particularly attractive coal prospect for foreign operators, due to relatively high production costs and substantial transport costs to the growth markets of Asia. Nevertheless, exports are high and increasing, currently accounting for 27.4% of revenue, while imports supply an estimated 2.3% of domestic demand.

International trade is a major determinant of an industry's level of globalization.

Exports offer growth opportunities for firms. However there are legal, economic and political risks associated with dealing in foreign countries.

Import competition can bring a greater risk for companies as foreign producers satisfy domestic demand that local firms would otherwise supply.

Trade Globalization

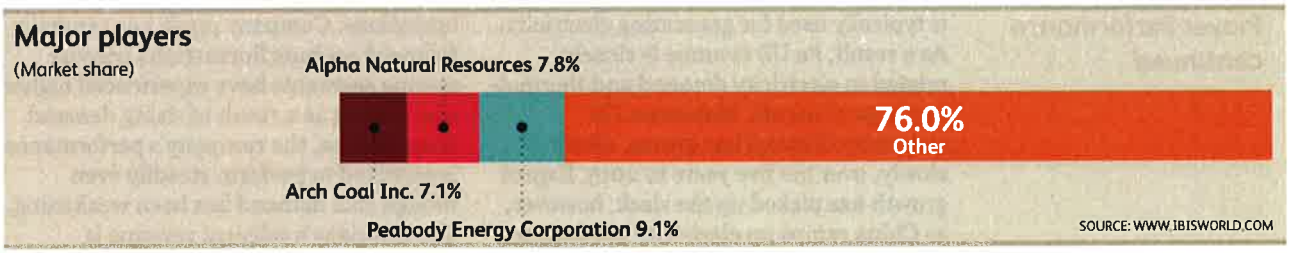


Going Global: Coal Mining 2003-2015

SOURCE: WWW.IBISWORLD.COM

Major Companies

Peabody Energy Corporation | Alpha Natural Resources
Arch Coal Inc. | Other Companies



Player Performance

Peabody Energy Corporation
Market share: 9.1 %
Industry Brand Names
Peabody Group

Peabody Energy Corporation is one of the world's largest coal companies, as it controls about 9.0 billion tons of reserves and operates or owns interests in facilities in nine US states. Peabody also owns coal mines in Australia and has an interest in a coal mine in Venezuela, but the bulk of its operations are in the United States. The company is organized into five segments: Western US mining, Midwestern US mining, Australian mining, trading and brokerage and corporate and other. The Western and Midwestern US mining segments are the most relevant to this industry.

About 65.0% of Peabody's annual coal production comes from the Powder River Basin in Wyoming, where Peabody controls about 3.0 billion tons of reserves and operates three thermal coal mines that supply US electricity generators. Two of these, the North Antelope Rochelle and Caballo mine, are substantial operations, producing high-energy, low-sulfur coal. This is because the North Antelope Rochelle mine is the largest coal mine in the United States and both mines ship coal via the Burlington Northern Santa Fe and Union Pacific railways to serve a customer base extending from the Pacific Coast to the Canadian border and Gulf Coast. Additionally, Peabody's third Powder River mine, Rawhide, is much smaller.

Financial performance

In the five years to 2015, Peabody's revenue is expected to grow at an annualized rate of 0.4% to $3.8 billion. Over part of the period, the company benefited from higher pricing in 2010 and 2011, as thermal and metallurgical coal experienced a rise in demand after the recession. Most of Peabody's US coal assets are classified as thermal coal, which

Peabody Energy Corporation (US coal mining segment) – financial performance*

Year	Revenue ($ million)	(% change)	Operating Income ($ million)	(% change)
2010	3,773.0	N/C	743.1	N/C
2011	4,385.9	16.2	877.6	18.1
2012	4,361.9	-0.5	93.2	-89.4
2013	4,108.9	-5.8	-190.3	N/C
2014	3,740.0	-9.0	-137.5	N/C
2015	3,847.2	2.9	-56.0	-59.3

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

Player Performance continued

is typically used for generating electricity. As a result, its US revenue is closely related to electricity demand and thermal-coal export trends. Moreover, US electricity demand has grown, albeit slowly, over the five years to 2015. Export growth has picked up the slack, however, as China ramps up electricity production and Europe slows down nuclear operations. Company profit has generally followed revenue fluctuations because mining segments have experienced higher coal pricing as a result of rising demand. Nevertheless, the company's performance is expected to perform steadily even though coal demand has been weakening. The company's relevant revenue is projected to rise by 2.9% in 2015.

Player Performance

Alpha Natural Resources
Market share: 7.8%

Alpha Natural Resources is a leading supplier of high-quality Appalachian coal to steel manufacturers, electric utilities and other industries. It is also the largest US supplier and exporter of metallurgical coal, with a production capacity of nearly 126.0 million tons of thermal and metallurgical coal. Currently, Alpha operates 150 mines and 40 coal-preparation plants throughout Virginia, West Virginia, Kentucky, Pennsylvania and Wyoming.

On July 31, 2009, Alpha acquired Foundation Coal Holdings, which was a major US coal producer that operated mines and associated processing and loading facilities in Pennsylvania, West Virginia and Wyoming. Foundation Coal also primarily supplied thermal coal to US utilities for use in generating electricity. The company also sold thermal coal to industrial plants and metallurgical coal to steel companies in America. In June 2011, Alpha acquired Massey Energy Company for roughly $6.7 billion. Massey, together with its affiliates, was a major US coal producer with 2.4 billion tons of proven and probable reserves (i.e. measured mineral resources that are economically minable, as opposed to indicated mineral resources). Massey operated mines and associated processing and loading facilities in central Appalachia. In 2011, Alpha sold a total of 106.3 million tons of steaming and metallurgical coal, 20.9 million tons of which were related to the Massey acquisition. In January 2013, the company announced that it will lay off 200 coal miners in Eastern Kentucky and will idle four underground mines in Harlan and Letcher counties.

In the second quarter of 2012, Alpha reported a $2.0 billion loss, while in

Alpha Natural Resources (coal segment) – financial performance*

Year	Revenue ($ million)	(% change)	Operating Income ($ million)	(% change)
2010	3,384.5	N/C	150.0	N/C
2011	6,190.8	82.9	-539.1	N/C
2012	6,015.7	-2.8	-2,411.8	347.4
2013	4,258.0	-29.2	-919.8	-61.9
2014	3,637.6	-14.6	-861.4	-6.3
2015	3,297.3	-9.4	-478.5	-44.5

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

Player Performance continued

September 2012, the company disclosed its plans to revamp operations to focus on metallurgical coal. Alpha plans to close mines and reduce its workforce to improve profitability. Most of these cost-cutting measures pertain to its higher-cost thermal-coal operations in the eastern United States. Alpha employs about 10,500 workers globally and has consolidated four of its operating regions into two. This realignment will reduce operational overhead costs by about $150.0 million while enhancing efficiency.

Financial performance

Alpha's acquisitions of Foundation Coal and Massey made it one of the largest companies in the industry. These purchases gave Alpha greater access to domestic coal resources and progressed the company's strategy of supplying more metallurgical coal to export markets. While other companies are focusing on thermal coal, Alpha is focusing on growing the US metallurgical business to cater to the needs of emerging economies overseas. The company's industry-relevant revenue is expected to decline at an average annual rate of 0.5% to $3.3 billion in the five years to 2015. However, the company's profit has not reached previous levels due to costs associated with the acquisitions, with the company's performance having been lackluster over the past few years. Furthermore, revenue is anticipated to fall 9.7% in 2015 due to weak demand and high levels of coal supply on global markets.

Player Performance

Arch Coal Inc.
Market share: 7.1 %

Arch Coal Inc. is a major US coal producer that is headquartered in St. Louis. Electricity utilities purchase well over 90.0% of the coal sold by Arch, including 7.5 million tons purchased from third parties. Arch's coal provides fuel for about 6.0% of the electricity generated in the United States. The company operates 19 US coal mines, with production amounting to 118.6 million tons. In October 2009, the company acquired the Jacob's Ranch mine complex from Rio Tinto. Based in the Powder River Basin of Wyoming, the acquisition encompasses 345.0 million tons of low-cost, low-sulfur coal reserves, which were subsequently integrated into Arch's adjacent Black Thunder mine. In June 2011, Arch also acquired International Coal Group (ICG), which operated mines primarily in the Appalachian region of the United States.

Additionally, about 80.0% of the company's coal comes from surface

Arch Coal Inc.(industry relevant segment) – financial performance*

Year	Revenue ($ million)	(% change)	Operating Income ($ million)	(% change)
2010	3,186.3	N/C	324.0	N/C
2011	4,285.9	34.5	343.1	5.9
2012	4,159.0	-3.0	-757.0	N/C
2013	3,014.4	-27.5	-663.1	N/C
2014	2,940.0	-2.5	-455.0	N/C
2015	3,030.0	3.1	-275.0	-39.6

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

Player Performance continued

mines and the remaining 20.0% from underground operations. Arch has proven and probable reserves totaling 3.9 billion tons, 89.0% of which are low in sulfur, while 79.0% meet the most stringent requirements of the Clean Air Act without the application of expensive scrubbing technology. The company operates mining complexes in six states located in the low-sulfur coal basins of central Appalachia, the Powder River Basin and the western bituminous area. Arch's coal operations in central Appalachia focus on mines in West Virginia, Kentucky and Virginia. The Powder River Basin in Wyoming, the largest US coal supply region, is the source of 76.0% of Arch's coal output; most of this production comes from the company's Black Thunder mine. Arch's coal mines in the western bituminous region, located in Utah and Colorado, produce 13.0% of the company's output.

The company has been increasingly emphasizing cost reductions, as the performance of coal prices has eased since 2011 and 2012. The company has emphasized positioning itself away from regions that could be negatively impacted by further regulations from the Environmental Protection Agency. Additionally, the company reduced its overall expenditures by about $500.0 million in 2013, with the company's cost cutting behavior is anticipated to continue. Since 2011, the company has reduced its capital spending 45.0% by transferring idled equipment to more profitable projects.

Financial performance

Arch's revenue is expected to grow at an average annual rate of 1.0% to $3.0 billion in the five years to 2015. However, in 2012, Arch idled several operations and reduced its production in mining complexes throughout Appalachia due to an unprecedented decline in demand for coal-based electricity generation. In June 2013, it announced the need to further scale back production and personnel as a result of challenging and persisting coal-market conditions and subsequently idled two mines. In 2013, revenue plummeted by 27.5%, largely due to the company's reduced production capacity and weak coal prices.

Overall, the company has focused on products most favored by the market. Its mines typically produce low-cost coal with low sulfur content; this strategy is based on the belief that this type of coal will be more competitive with natural gas due to its low sulfur content. As a result, it is expected to undergo fewer regulation constraints compared with other types of coal. However, company profit is likely to suffer in the short-term, as Arch continues its growth strategy through investments and acquisitions. The company's purchase of ICG marks a strong entry into the metallurgical market, while the company still plans to concentrate on its mines in Wyoming, the acquisition of metallurgical coal mines also represents an export growth opportunity. Additionally, this acquisition is consistent with the trend of coal companies increasing their holdings of metallurgical coal to meet demand from abroad.

Major Companies

Other Companies

Large, vertically integrated companies that have access to sizeable coal reserves dominate the Coal Mining industry. As such, there is little room for small players because the barriers to entry are high and competition is intense among existing companies. Regional coal miners, however, have stayed in the game because they exert control over producing mines in the areas they operate.

Consol Energy Inc.

Estimated market share: 4.6 %

Consol Energy Inc. is headquartered in Pennsylvania and has two principal business units: coal and gas. Its coal division, which focuses on the mining and sale of thermal coal, is the larger of the two. The coal segment is also further organized into four region-specific segments: northern Appalachian, central Appalachian, metallurgical and other coal, all of which are included in this industry. The company's gas operations primarily consist of extracting coalbed methane from coal seams, mainly in Virginia. On April 30, 2010, Consol acquired Dominion Resources, an energy services company, for $3.5 billion. As a result of this acquisition, Consol became one of the largest, fastest-growing and lowest-cost producers of natural gas in the region.

Consol is a major miner of high-energy bituminous coal and the largest underground coal miner in the United States. The vast bulk of Consol's output (about 90.0%) comes from underground mines. Moreover, where geology is favorable and reserves are sufficient, Consol uses longwall mining systems in its underground mines. Additionally, 84.0% of Consol's output comes from underground mines equipped with longwalls. The company sells on both the domestic and export markets and its major market consists of electricity generators, which accounted for about 80.0% of Consol's direct coal sales in 2011. In addition, agents, brokers and unaffiliated trading companies handle output.

In 2012, Consol posted a loss due to production cuts amid weak demand from thermal coal used in utilities generation. Consequently, as the energy market shifts, Consol has been increasingly developing its natural gas operations. More specifically, the company is jointly expanding its Utica Shale holdings in Ohio in a partnership with Hess Corporation.

Consol's industry-relevant revenue is expected to fall at an average annual rate of 9.9% to $1.9 billion in the five years to 2015. Namely, the company boosted metallurgical coal production from a thermal coal mine to meet export demand. However, this strategy hurt Consol's profit in 2012 due to the costs associated with growing its presence in the metallurgical coal market. In 2015, the company's revenue is anticipated to decline marginally.

Patriot Coal Corporation

Estimated market share: 2.4 %

Patriot Coal Corporation is a regional coal producer based in St. Louis. Patriot operates 14 mining complexes primarily located in the Appalachia and Illinois Basin regions. The Appalachian segment mines and prepares thermal and metallurgical coal that is sold to electricity generators and steel producers. The Illinois Basin segment mainly mines and prepares thermal coal for sale to electricity generators. The company controls 1.9 billion tons of coal. In July 2012, Patriot filed for bankruptcy protection shortly after it lost a contract for coal bound for an Asian steel maker. In September, the company announced that it would temporarily idle metallurgical coal operations at three mining complexes in West Virginia on top of laying off 250 miners. In May 2014, the company

Major Companies

Other Companies continued

idled its Highland mine in Kentucky due to structural damage, but the company does not believe it to be a long lasting problem. However, due to slowdowns in production, its Highland mine idling and weakening coal prices, Patriot's revenue is expected to be $1.0 billion in 2015.

Operating Conditions

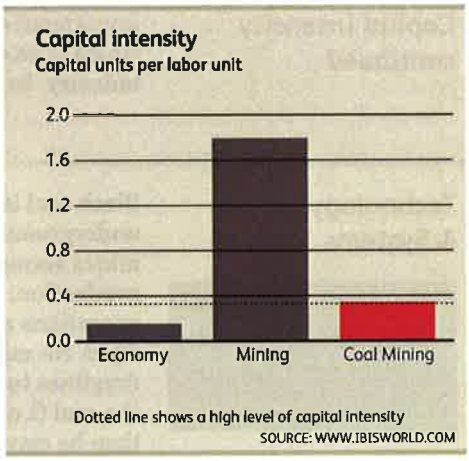
Capital Intensity | Technology & Systems | Revenue Volatility
Regulation & Policy | Industry Assistance

Capital Intensity

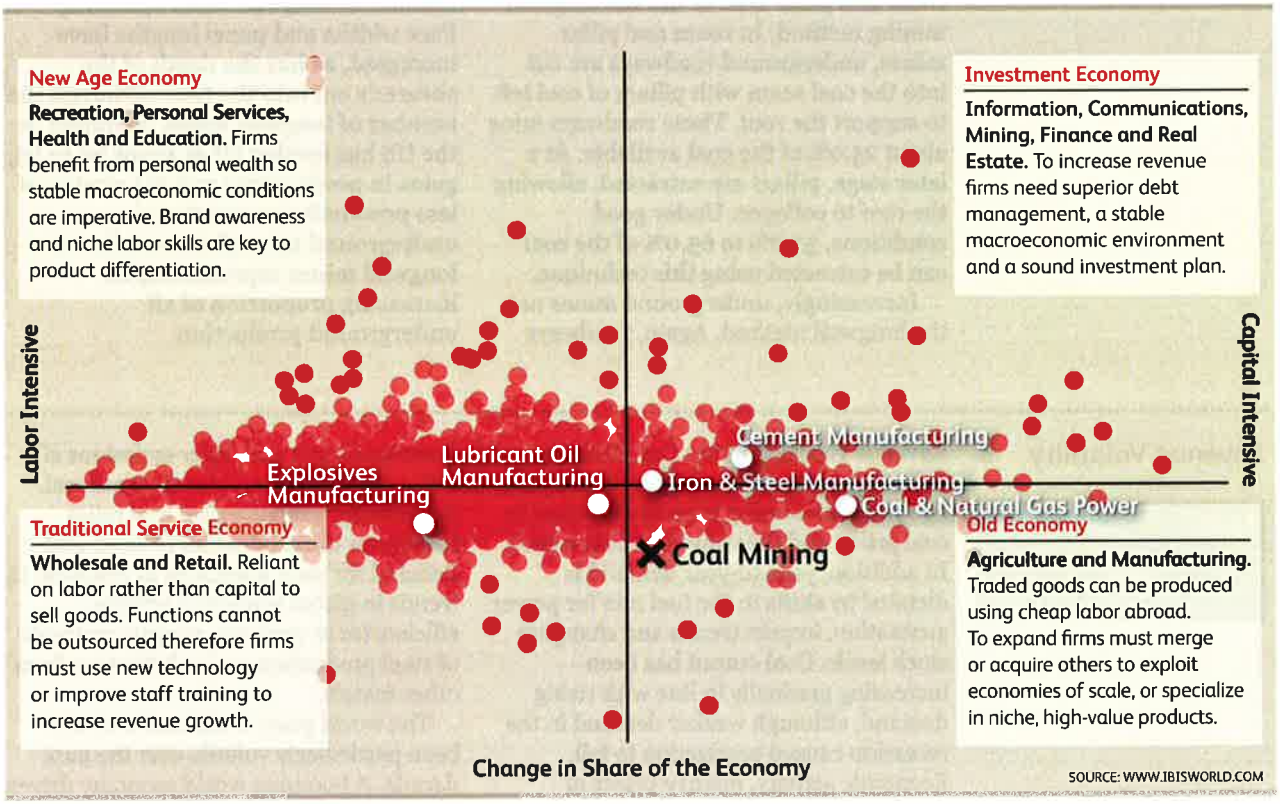
Level
The level of capital intensity is **High**

The Coal Mining industry is highly capital intensive, with most of its assets held in the form of land holdings, stocks and equipment. Establishing a new mine or expanding an existing one requires large amounts of capital for mine site development and specialized equipment, including items such as draglines (used to remove overburden at open-cut operations), longwalls (shearers and accompanying hydraulic supports and coal extraction conveyors) and coal washing plants.

Ongoing investment requirements largely depend on coal prices. If coal prices are too low, then an operator might reduce production; it might not be economical to extract coal from the mine at a cost that might surpass the expected market price. As a result, ongoing



Tools of the Trade: Growth Strategies for Success



Operating Conditions

Capital Intensity continued

investment costs depend on pricing, which is an external factor affecting the industry. In 2015, IBISWorld expects that for every dollar a company spends on labor, it will spend an estimated $0.46 on capital.

Technology & Systems

Level
The level of Technology Change is **Medium**

Black coal is mined in both open cut and underground operations. Open cut mines account for about 69.0% of coal production, and underground operations account for the remainder. Open cut mining involves the use of draglines to remove the soil that covers the coal (i.e. overburden). The coal may then be extracted using excavating equipment and large trucks. The proportion of coal extracted through the open cut mining method has been increasing over the past two decades because of its greater productivity.

Underground mines may be of the room and pillar type or use the longwall mining method. In room and pillar mines, underground roadways are cut into the coal seam with pillars of coal left to support the roof. These roadways mine about 25.0% of the coal available. At a later stage, pillars are extracted, allowing the roof to collapse. Under good conditions, 55.0% to 65.0% of the coal can be extracted using this technique.

Increasingly, underground mines use the longwall method. Again, roadways are cut to expose a block of coal up to 200 meters long. Hydraulic roof supports allow an automatic shearer and conveyor to cut coal from the face of the block. As the coal is cut, the supports, shearer and conveyor move forward, and the roof behind collapses. About 80.0% of the coal resource can be recovered using the longwall method.

Larger motors and improved designs of longwall shearers and continuous miners have contributed to greater output per hour. These improvements have led to increases in longwall production, despite a reduction in the number of longwall units operating. Face widths and panel lengths have increased, as has the depth of the shearer's cut into the face. Although the number of longwall mines operating in the US has leveled off at about 60 to 65, gains in productivity and the closing of less productive conventional underground mines have resulted in longwall mines representing an increasing proportion of all underground production.

Revenue Volatility

Level
The level of Volatility is **High**

Revenue volatility in the Coal Mining industry has been very high over the past five years, stemming from fluctuations in coal prices and the volume of coal mined. In addition, year-to-year demand is dictated by shifts in the fuel mix for power generation, import trends and changing stock levels. Coal output has been increasing gradually in line with rising demand, although weaker demand in the recession caused production to fall. Economic activity, relative prices of different fuels and concern over greenhouse gas and other emissions all influence the demand for thermal coal. Demand for metallurgical coal relies heavily on the production of steel, and demand for steel fluctuates in response to trends in global economic activity, efficiencies in steel use, varying methods of steel production and substitution from other metals.

The world price of thermal coal has been particularly volatile over the past decade. A booming world economy driven by rapidly industrializing Brazil, Russia,

Operating Conditions

Revenue Volatility continued

India and China caused worldwide electricity demand to skyrocket, driving up input prices. However, demand has eased in recent years, as countries are increasingly seeking alternative energy sources to coal. Furthermore, high levels of supply have pressured coal prices downward. Over the next five years, coal prices are anticipated to grow moderately, but the potential for price volatility will remain persistent.

Because Australia accounts for about 60.0% of global coal exports, flooding in Queensland in early 2011 severely restricted worldwide supply and further pushed thermal coal prices up. This event, combined with growing demand for industry products, helped drive a price increase of 22.2% in 2011. Unfortunately for US coal mining companies, a particularly mild 2011-12 winter in the United States, the return of Queensland mines to full production and the emergence of natural gas as a substitute product had reduced demand for thermal coal. Consequently, inventory stockpiles have remained high around the globe, depressing prices. As a result, the global price of thermal coal plummeted 20.3% to $103.3 per metric ton in 2012. In 2014, thermal and metallurgical coal prices declined by 16.3% and 11.6% respectively as Australian mining operations continue to increase production and natural gas usage increases. In 2015, prices of thermal and metallurgical coal are expected decline by 6.5% and 7.1% respectively.

A higher level of revenue volatility implies greater industry risk. Volatility can negatively affect long-term strategic decisions, such as the time frame for capital investment.

When a firm makes poor investment decisions it may face underutilized capacity if demand suddenly falls, or capacity constraints if it rises quickly.

SOURCE: WWW.IBISWORLD.COM

Regulation & Policy

Level & Trend
The level of Regulation is **Heavy** and the trend is **Steady**

Federal, state and local authorities regulate many aspects of the Coal Mining industry, including employee health and safety; permitting and licensing requirements; air quality standards; water pollution; plant and wildlife protection; the reclamation and restoration of mining properties after mining has been completed; the discharge of materials into the environment; surface subsidence from underground mining; and the effects of mining on groundwater quality and availability. In addition, legislation mandating benefits for current and retired coal miners significantly affects the industry.

Health and safety

Stringent health and safety standards have been in effect since Congress enacted the Coal Mine Health and Safety Act of 1969. The Federal Mine Safety and Health Act of

Operating Conditions

Regulation & Policy continued

1977 significantly expanded the enforcement of safety and health standards, imposing them on all aspects of mining operations.

The Mine Improvement and New Emergency Response Act of 2006 contains a number of provisions to improve safety and health in underground mines. In particular, the legislation requires mining companies to develop an emergency response plan for each mine they operate and to ensure that at least two rescue teams can reach each mine within an hour. The act also limits the legal liability of rescue team members (as well as the companies that employ them) and increases both civil and criminal penalties for violations of federal mining safety standards.

The Coal Industry Retiree Health Benefit Act of 1992 provides for the funding of health benefits for certain United Mine Workers of America retirees. The act established a benefit fund into which operators are obligated to pay annual premiums for beneficiaries. The act also created a second benefit fund for miners who retired between July 21, 1992 and September 30, 1994 and whose former employers are no longer in business.

Coal leases

The Bureau of Land Management (BLM), under the US Department of the Interior, has responsibility for coal leasing on about 570 million acres where the federal government owns the coal mineral resource. The land surface may be controlled by any of a number of bodies: the BLM, the United States Forest Service, private land owners, state government land owners or other federal agencies. A federal coal lease grants the right to explore for, extract, remove and dispose of some or all of the coal deposits found on the leased lands. Coal leases are granted on the condition that the lessee will obtain the appropriate permits and licenses from the BLM, the Office of Surface Mining and any affected state and local governments.

Companies bid for coal leases on a competitive basis. The BLM formulates an estimate of the fair market value of the coal. This figure, which is kept secret, is used to evaluate bids. The winning bid is the highest one meeting or exceeding the coal tract's fair market value, assuming that all eligibility requirements are met and the appropriate fees and payments are attached (a minimum of the first year's annual rental payment, calculated at $3 per acre, and one-fifth of the amount bid). The Department of the Interior and the state where the coal was mined share the annual rental payment.

The Surface Mining Control and Reclamation Act of 1977 (SMCRA), administered by the Office of Surface Mining Reclamation and Enforcement (OSM), establishes mining, environmental protection and reclamation standards for all aspects of surface mining, as well as many aspects of deep mining. Mine operators must obtain SMCRA permits and permit renewals for mining operations from the OSM. Where state regulatory agencies have adopted federal mining programs under the act, the state becomes the regulatory authority.

Environmental regulation

Besides OSM, other federal regulatory agencies are involved in monitoring or permitting specific aspects of mining operations. The US Environmental Protection Agency (EPA) is the lead agency for states or tribes with no authorized programs under the Clean Water Act, RCRA and CERCLA. The US Army Corps of Engineers regulates activities affecting navigable waters, and the US Bureau of Alcohol, Tobacco and Firearms (ATF) regulates the use of explosives blasting.

The Clean Air Act, as well as state laws regulating emissions of materials into the air, affects coal mining operations. Coal

Operating Conditions

Regulation & Policy continued

mining and processing operations are directly impacted by Clean Air Act permitting requirements and emission control requirements relating to particulate matter, such as fugitive dust, including future regulation of fine particulate matter measuring 10 micrometers in diameter or smaller. The Clean Air Act indirectly affects coal mining operations by extensively regulating the air emissions of sulfur dioxide, nitrogen oxide, mercury and other compounds emitted by coal-based electricity generating plants. Compliance with these strict standards and regulations drives up costs for industry operators, raising prices and restricting downstream demand.

Title IV of the Clean Air Act sets baseline standards on sulfur dioxide emissions from electric power generation plants. Reductions in emissions occurred in Phase I in 1995 and in Phase II in 2000, and apply to all coal-based power plants. The affected electricity generators have been able to meet these requirements by, among other ways, switching to lower sulfur fuels, installing pollution control devices, such as flue gas desulfurization systems (known as 'scrubbers'), reducing electricity generating levels or purchasing sulfur dioxide emission allowances. Emission sources receive these sulfur dioxide emission allowances, which can be traded or sold to allow other units to emit higher levels of sulfur dioxide. Title IV also required that certain categories of coal-based electric generating stations install certain types of nitrogen oxide controls.

In March 2005, the EPA issued the Clean Air Interstate Rule (CAIR), which will permanently cap emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) in the eastern United States (28 states and the District of Columbia). When fully implemented in 2015, CAIR will reduce SO2 emissions in these states by over 70.0% and NOx emissions by over 60.0% from 2003 levels. Although CAIR does not specify how emissions are to be reduced, the EPA anticipates that states will meet the tougher limits by reducing emissions from power stations. The new rules are likely to benefit producers of low sulfur coal.

Industry Assistance

Level & Trend
The level of Industry Assistance is **None** and the trend is **Steady**

The Coal Mining industry is not protected from import competition by either tariff or non-tariff barriers, but it does receive other forms of support from the federal government. In 2001, President George Bush pledged to commit $2.0 billion over ten years to advance clean coal technology. The resulting Clean Coal Power Initiative (CCPI, operating under the US Energy Policy Act of 2003) provides government co-financing for new coal technologies aimed at cutting sulfur, nitrogen and mercury pollutants released when coal is burned in power plants.

CCPI is implemented via a series of funding rounds that target specific areas of interest. The first funding round (launched in early 2002) focused on projects aiming to reduce mercury, sulfur and nitrogen pollutants, cut greenhouse gas emissions and extract energy from waste coal piles. The second funding round (launched in early 2004) selected projects dealing with multi-pollutant controls and coal gasification. The Energy Policy Act of 2005 continues the CCPI and provides additional tax incentives, including $1.6 billion in tax incentives for investments in clean coal facilities.

A third round of CCPI focuses on developing projects that use carbon sequestration technologies, as well as beneficial reuse of carbon dioxide. Through the American Recovery and Reinvestment Act of 2009, an additional funding of $800 million was allocated to the CCPI Program. Currently, out of the 18 total projects initiated under CCPI, four have been completed, two discontinued, seven withdrawn and four are still active.

Key Statistics

Industry Data

	Revenue ($m)	Industry Value Added ($m)	Establish-ments	Enterprises	Employment	Exports ($m)	Imports ($m)	Wages ($m)	Domestic Demand	World price of steaming coal ($ per metric ton)
2006	36,676.9	10,226.3	1,132	703	78,901	4,168.0	2,106.2	5,825.1	34,615.1	52.6
2007	37,866.3	9,328.5	1,147	707	81,063	4,793.0	1,996.9	5,769.0	35,070.2	70.4
2008	57,459.9	11,562.1	1,066	679	83,012	9,006.2	2,314.8	6,563.1	50,768.5	136.2
2009	40,557.3	10,801.2	1,108	694	84,893	6,725.9	1,623.4	6,339.9	35,454.8	77.0
2010	48,998.1	14,314.7	1,086	663	82,268	10,908.5	1,540.0	6,524.0	39,629.6	106.0
2011	54,250.7	15,460.0	1,048	622	87,046	17,341.8	1,468.7	7,213.9	38,377.6	129.6
2012	46,219.9	13,345.7	1,072	624	90,190	15,882.8	945.3	7,152.3	31,282.4	103.3
2013	45,686.1	13,876.1	1,038	604	89,984	11,760.8	780.6	7,114.6	34,705.9	90.6
2014	43,607.2	13,001.4	1,026	596	87,381	12,911.6	746.6	6,852.8	31,442.2	75.9
2015	42,423.7	12,492.0	996	578	86,193	11,633.8	728.2	6,722.4	31,518.1	71.0
2016	42,653.1	12,086.5	978	568	86,538	12,181.1	724.0	6,754.9	31,196.0	72.7
2017	42,768.0	12,197.4	969	561	86,628	12,867.8	690.3	6,765.9	30,590.5	74.4
2018	43,005.1	12,131.2	957	552	86,970	13,140.0	683.5	6,798.5	30,548.6	76.2
2019	43,222.2	12,057.9	949	546	87,276	12,665.9	686.8	6,828.0	31,243.1	78.0
2020	43,442.3	12,208.8	931	536	87,707	13,482.6	673.0	6,865.4	30,632.7	79.9
Sector Rank	3/14	4/14	6/14	7/14	3/14	2/11	7/11	3/14	3/11	N/A
Economy Rank	237/1322	237/1322	825/1322	853/1322	392/1322	36/405	237/406	239/1322	76/405	N/A

Annual Change

	Revenue (%)	Industry Value Added (%)	Establish-ments (%)	Enterprises (%)	Employment (%)	Exports (%)	Imports (%)	Wages (%)	Domestic Demand (%)	World price of steaming coal (%)
2007	3.2	-8.8	1.3	0.6	2.7	15.0	-5.2	-1.0	1.3	33.8
2008	51.7	23.9	-7.1	-4.0	2.4	87.9	15.9	13.8	44.8	93.5
2009	-29.4	-6.6	3.9	2.2	2.3	-25.3	-29.9	-3.4	-30.2	-43.5
2010	20.8	32.5	-2.0	-4.5	-3.1	62.2	-5.1	2.9	11.8	37.7
2011	10.7	8.0	-3.5	-6.2	5.8	59.0	-4.6	10.6	-3.2	22.3
2012	-14.8	-13.7	2.3	0.3	3.6	-8.4	-35.6	-0.9	-18.5	-20.3
2013	-1.2	4.0	-3.2	-3.2	-0.2	-26.0	-17.4	-0.5	10.9	-12.3
2014	-4.6	-6.3	-1.2	-1.3	-2.9	9.8	-4.4	-3.7	-9.4	-16.2
2015	-2.7	-3.9	-2.9	-3.0	-1.4	-9.9	-2.5	-1.9	0.2	-6.5
2016	0.5	-3.2	-1.8	-1.7	0.4	4.7	-0.6	0.5	-1.0	2.4
2017	0.3	0.9	-0.9	-1.2	0.1	5.6	-4.7	0.2	-1.9	2.3
2018	0.6	-0.5	-1.2	-1.6	0.4	2.1	-1.0	0.5	-0.1	2.4
2019	0.5	-0.6	-0.8	-1.1	0.4	-3.6	0.5	0.4	2.3	2.4
2020	0.5	1.3	-1.9	-1.8	0.5	6.4	-2.0	0.5	-2.0	2.4
Sector Rank	14/14	14/14	13/14	13/14	12/14	11/11	11/11	14/14	10/11	N/A
Economy Rank	1277/1322	1269/1322	1258/1322	1253/1322	1176/1322	398/405	383/406	1229/1322	344/405	N/A

Key Ratios

	IVA/Revenue (%)	Imports/ Demand (%)	Exports/ Revenue (%)	Revenue per Employee ($'000)	Wages/Revenue (%)	Employees per Est.	Average Wage ($)	Share of the Economy (%)
2006	27.88	6.08	11.36	464.85	15.88	69.70	73,827.96	0.07
2007	24.64	5.69	12.66	467.12	15.24	70.67	71,166.87	0.06
2008	20.12	4.56	15.67	692.19	11.42	77.87	79,062.06	0.08
2009	26.63	4.58	16.58	477.75	15.63	76.62	74,681.07	0.07
2010	29.21	3.89	22.26	595.59	13.31	75.75	79,301.79	0.10
2011	28.50	3.83	31.97	623.24	13.30	83.06	82,874.57	0.10
2012	28.87	3.02	34.36	512.47	15.47	84.13	79,302.58	0.09
2013	30.37	2.25	25.74	507.71	15.57	86.69	79,065.17	0.09
2014	29.81	2.37	29.61	499.05	15.71	85.17	78,424.37	0.08
2015	29.45	2.31	27.42	492.19	15.85	86.54	77,992.41	0.08
2016	28.34	2.32	28.56	492.88	15.84	88.48	78,057.04	0.07
2017	28.52	2.26	30.09	493.70	15.82	89.40	78,102.92	0.07
2018	28.21	2.24	30.55	494.48	15.81	90.88	78,170.63	0.07
2019	27.90	2.20	29.30	495.24	15.80	91.97	78,234.57	0.07
2020	28.10	2.20	31.04	495.31	15.80	94.21	78,276.53	0.06
Sector Rank	12/14	7/11	4/11	8/14	6/14	4/14	8/14	4/14
Economy Rank	724/1322	367/405	115/405	346/1322	764/1322	107/1322	214/1322	237/1322

Figures are inflation-adjusted 2015 dollars. Rank refers to 2015 data.

SOURCE: WWW.IBISWORLD.COM

Jargon & Glossary

Industry Jargon

COKE Solid residue remaining after certain types of coals are heated to a high temperature out of contact with air until all components that easily vaporize have been driven off.

LONGWALL MINING A form of underground mining in which large blocks or panels of coal are excavated using a shearer. The mine roof collapses as the shearer retreats.

METALLURGICAL COAL Coal with a high carbon content used to produce coke for steel making. This type of coal is also referred to as coking coal.

OPEN CUT MINING A type of surface excavation in the form of an inverted cone; the shape of the mine opening varies with the shape of the mineral deposit.

PIG IRON Crude iron produced in a blast furnace and poured into molds in preparation for making wrought iron, steels, alloys, etc.

THERMAL COAL Coal with a high energy content burned as fuel in power stations. This type of coal is also referred to as steaming coal.

IBISWorld Glossary

BARRIERS TO ENTRY High barriers to entry mean that new companies struggle to enter an industry, while low barriers mean it is easy for new companies to enter an industry.

CAPITAL INTENSITY Compares the amount of money spent on capital (plant, machinery and equipment) with that spent on labor. IBISWorld uses the ratio of depreciation to wages as a proxy for capital intensity. High capital intensity is more than $0.333 of capital to $1 of labor; medium is $0.125 to $0.333 of capital to $1 of labor; low is less than $0.125 of capital for every $1 of labor.

CONSTANT PRICES The dollar figures in the Key Statistics table, including forecasts, are adjusted for inflation using the current year (i.e. year published) as the base year. This removes the impact of changes in the purchasing power of the dollar, leaving only the "real" growth or decline in industry metrics. The inflation adjustments in IBISWorld's reports are made using the US Bureau of Economic Analysis' implicit GDP price deflator.

DOMESTIC DEMAND Spending on industry goods and services within the United States, regardless of their country of origin. It is derived by adding imports to industry revenue, and then subtracting exports.

EMPLOYMENT The number of permanent, part-time, temporary and seasonal employees, working proprietors, partners, managers and executives within the industry.

ENTERPRISE A division that is separately managed and keeps management accounts. Each enterprise consists of one or more establishments that are under common ownership or control.

ESTABLISHMENT The smallest type of accounting unit within an enterprise, an establishment is a single physical location where business is conducted or where services or industrial operations are performed. Multiple establishments under common control make up an enterprise.

EXPORTS Total value of industry goods and services sold by US companies to customers abroad.

IMPORTS Total value of industry goods and services brought in from foreign countries to be sold in the United States.

INDUSTRY CONCENTRATION An indicator of the dominance of the top four players in an industry. Concentration is considered high if the top players account for more than 70% of industry revenue. Medium is 40% to 70% of industry revenue. Low is less than 40%.

INDUSTRY REVENUE The total sales of industry goods and services (exclusive of excise and sales tax); subsidies on production; all other operating income from outside the firm (such as commission income, repair and service income, and rent, leasing and hiring income); and capital work done by rental or lease. Receipts from interest royalties, dividends and the sale of fixed tangible assets are excluded.

INDUSTRY VALUE ADDED (IVA) The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industry's contribution to GDP, or profit plus wages and depreciation.

INTERNATIONAL TRADE The level of international trade is determined by ratios of exports to revenue and imports to domestic demand. For exports/revenue: low is less than 5%, medium is 5% to 20%, and high is more than 20%. Imports/domestic demand: low is less than 5%, medium is 5% to 35%, and high is more than 35%.

LIFE CYCLE All industries go through periods of growth, maturity and decline. IBISWorld determines an industry's life cycle by considering its growth rate (measured by IVA) compared with GDP; the growth rate of the number of establishments; the amount of change the industry's products are undergoing; the rate of technological change; and the level of customer acceptance of industry products and services.

NONEMPLOYING ESTABLISHMENT Businesses with no paid employment or payroll, also known as nonemployers. These are mostly set up by self-employed individuals.

Jargon & Glossary

IBISWorld Glossary continued

PROFIT IBISWorld uses earnings before interest and tax (EBIT) as an indicator of a company's profitability. It is calculated as revenue minus expenses, excluding interest and tax.

VOLATILITY The level of volatility is determined by averaging the absolute change in revenue in each of the past five years. Volatility levels: very high is more than ±20%; high volatility is ±10% to ±20%; moderate volatility is ±3% to ±10%; and low volatility is less than ±3%.

WAGES The gross total wages and salaries of all employees in the industry. The cost of benefits is also included in this figure.

Exhibit C

STATE OF IDAHO)
COUNTY OF ADA) ss.
CITY OF BOISE)

I, PATRICK A. HARRINGTON, the undersigned, Secretary of Idaho Energy Resources, Co. ("Company"), do hereby certify that the following constitutes a full, true and correct copy of the resolutions adopted at a meeting of the Board of Directors of the Company held June 4, 2015, authorizing the Company, as a one-third joint venturer of Bridger Coal Company ("BCC"), to contribute additional funds to BCC for BCC's purchase of certain longwall mining equipment, and that said resolutions have not been amended or rescinded and are in full force and effect on the date hereof.

IN WITNESS WHEREOF, I have hereunto set my hand this 16th day of June, 2015.

(CORPORATE SEAL)

/s/ Patrick A. Harrington
Secretary

RESOLVED, That the Board of Directors of Idaho Energy Resources, Co. ("Company") hereby authorizes the President or any Vice President of the Company to execute a Sale and Purchase Agreement on behalf of the Company, authorizing Bridger Coal Company, a joint venture between the Company (one-third owner) and Pacific Minerals, Inc. (two-thirds owner) ("BCC"), to purchase the Joy longwall mining system from PacifiCorp, Inc., for use at the BCC underground coal mine in Sweetwater County, Wyoming, with the Company's contribution for said purchase being hereby authorized at $4.259 million; and be it

FURTHER RESOLVED, That the Board of Directors of the Company hereby approves an increase in the Company's 2015 capital budget, originally approved by the Board of Directors on December 22, 2014, by $4.259 million, to reflect the Company's contribution for BCC's purchase of the Joy longwall mining system as described above; and be it

FURTHER RESOLVED, That the officers of the Company are hereby authorized and directed to do or cause to be done any and all other acts and things in their judgment that may be necessary or proper in order to carry out the purposes of the foregoing resolutions.

Exhibit J

IDAHO POWER COMPANY
EXHIBIT J
PROPOSED JOURNAL ENTRIES

FERC Account	Description	Debit	Credit
123.015	Investment in Bridger Coal Company	XXX.XX	
131	Cash		XXX.XX

To record the purchase of the Joy longwall mining system and support equipment.