UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ **Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the quarterly period ended September 30, 2019

or

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the transition period from to .

Commission file number: 1-13105

ArchCoal

Arch Coal Inc

(Exact name of registrant as specified in its charter)

Delaware	**43-0921172**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
One CityPlace Drive	
Suite 300	
St. Louis	
Missouri	**63141**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: **(314) 994-2700**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading symbol**	**Name of each exchange on which registered**
Common stock, $.01 par value	ARCH	New York Stock Exchange

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes ☒ No

At October 18, 2019, there were 15,041,754 shares of the registrant’s common stock outstanding.

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Part I
FINANCIAL INFORMATION

Item 1. Financial Statements.

Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Income Statements
(in thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(Unaudited)		(Unaudited)	
Revenues	$ 619,467	$ 633,180	$ 1,744,872	$ 1,800,824
Costs, expenses and other operating				
Cost of sales (exclusive of items shown separately below)	491,004	482,029	1,380,563	1,411,197
Depreciation, depletion and amortization	30,402	31,775	82,199	92,027
Accretion on asset retirement obligations	5,137	6,992	15,411	20,977
Amortization of sales contracts, net	(153)	3,241	(77)	9,540
Change in fair value of coal derivatives and coal trading activities, net	1,530	10,418	(19,851)	22,142
Selling, general and administrative expenses	24,566	22,909	73,864	73,613
Costs related to proposed joint venture with Peabody Energy	3,754	—	6,772	—
Loss on sale of Lone Mountain Processing, LLC	—	—	4,304	—
Preference Rights Lease Application settlement income	(39,000)	—	(39,000)	—
Other operating income, net	(4,254)	(7,070)	(9,143)	(21,320)
	512,986	550,294	1,495,042	1,608,176
Income from operations	106,481	82,886	249,830	192,648
Interest expense, net				
Interest expense	(4,049)	(5,179)	(12,856)	(15,624)
Interest and investment income	3,709	1,801	7,940	4,626
	(340)	(3,378)	(4,916)	(10,998)
Income before nonoperating expenses	106,141	79,508	244,914	181,650
Nonoperating (expenses) income				
Non-service related pension and postretirement benefit (costs) credits	975	(971)	(2,127)	(2,206)
Net loss resulting from early retirement of debt and debt restructuring	—	—	—	(485)
Reorganization items, net	—	(560)	71	(1,601)
	975	(1,531)	(2,056)	(4,292)
Income before income taxes	107,116	77,977	242,858	177,358
Provision for (benefit from) income taxes	347	(45,215)	508	(49,125)
Net income	$ 106,769	$ 123,192	$ 242,350	$ 226,483
Net income per common share				
Basic earnings per common share	$ 6.79	$ 6.40	$ 14.61	$ 11.27
Diluted earnings per common share	$ 6.34	$ 6.10	$ 13.66	$ 10.76
Weighted average shares outstanding				
Basic weighted average shares outstanding	15,736	19,250	16,591	20,102
Diluted weighted average shares outstanding	16,852	20,208	17,744	21,040
Dividends declared per common share	$ 0.45	$ 0.40	$ 1.35	$ 1.20

The accompanying notes are an integral part of the condensed consolidated financial statements.

Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(Unaudited)		(Unaudited)	
Net income	$ 106,769	$ 123,192	$ 242,350	$ 226,483
Derivative instruments				
Comprehensive income (loss) before tax	(2,360)	64	(2,421)	(5,672)
Income tax benefit (provision)	—	—	—	—
	(2,360)	64	(2,421)	(5,672)
Pension, postretirement and other post-employment benefits				
Comprehensive income (loss) before tax	(4,019)	2,736	(1,117)	6,389
Income tax benefit (provision)	—	—	—	—
	(4,019)	2,736	(1,117)	6,389
Available-for-sale securities				
Comprehensive income (loss) before tax	(98)	102	553	(379)
Income tax benefit (provision)	—	—	—	—
	(98)	102	553	(379)
Total other comprehensive income (loss)	(6,477)	2,902	(2,985)	338
Total comprehensive income	$ 100,292	$ 126,094	$ 239,365	$ 226,821

The accompanying notes are an integral part of the condensed consolidated financial statements.

Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Balance Sheets
(in thousands, except per share data)

	September 30, 2019 (Unaudited)	December 31, 2018
Assets		
Current assets		
Cash and cash equivalents	$ 175,428	$ 264,937
Short term investments	176,056	162,797
Trade accounts receivable	206,149	200,904
Other receivables	24,291	48,926
Inventories	171,543	125,470
Other current assets	113,502	75,749
Total current assets	866,969	878,783
Property, plant and equipment, net	889,295	834,828
Other assets		
Equity investments	107,543	104,676
Other noncurrent assets	70,793	68,773
Total other assets	178,336	173,449
Total assets	$ 1,934,600	$ 1,887,060
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 166,129	$ 128,024
Accrued expenses and other current liabilities	161,939	183,514
Current maturities of debt	11,925	17,797
Total current liabilities	339,993	329,335
Long-term debt	292,781	300,186
Asset retirement obligations	238,440	230,304
Accrued pension benefits	12,491	16,147
Accrued postretirement benefits other than pension	78,308	83,163
Accrued workers’ compensation	174,118	174,303
Other noncurrent liabilities	93,033	48,801
Total liabilities	1,229,164	1,182,239
Stockholders' equity		
Common stock, $0.01 par value, authorized 300,000 shares, issued 25,050 and 25,047 shares at September 30, 2019 and December 31, 2018, respectively	250	250
Paid-in capital	734,829	717,492
Retained earnings	746,928	527,666
Treasury stock, 9,955 shares and 7,216 shares at September 30, 2019 and December 31, 2018, respectively, at cost	(816,882)	(583,883)
Accumulated other comprehensive income	40,311	43,296
Total stockholders’ equity	705,436	704,821
Total liabilities and stockholders’ equity	$ 1,934,600	$ 1,887,060

The accompanying notes are an integral part of the condensed consolidated financial statements.

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Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(in thousands)

	Nine Months Ended September 30,	
	2019	2018
	(Unaudited)	
Operating activities		
Net income	$ 242,350	$ 226,483
Adjustments to reconcile to cash provided by operating activities:		
Depreciation, depletion and amortization	82,199	92,027
Accretion on asset retirement obligations	15,411	20,977
Amortization of sales contracts, net	(77)	9,540
Deferred income taxes	13,680	(22,999)
Employee stock-based compensation expense	17,305	12,161
Gains on disposals and divestitures, net	(818)	(54)
Net loss resulting from early retirement of debt and debt restructuring	—	485
Amortization relating to financing activities	2,757	3,300
Preference Rights Lease Application settlement income	(39,000)	—
Changes in:		
Receivables	(4,622)	(5,983)
Inventories	(46,073)	(34,918)
Accounts payable, accrued expenses and other current liabilities	1,569	(24,762)
Income taxes, net	32,440	(1,942)
Other	16,932	(8,200)
Cash provided by operating activities	334,053	266,115
Investing activities		
Capital expenditures	(137,396)	(55,742)
Minimum royalty payments	(1,187)	(522)
Proceeds from disposals and divestitures	1,799	512
Purchases of short term investments	(158,578)	(140,097)
Proceeds from sales of short term investments	146,170	133,400
Investments in and advances to affiliates, net	(4,810)	(1,817)
Cash used in investing activities	(154,002)	(64,266)
Financing activities		
Payments on term loan due 2024	(2,250)	(2,250)
Net payments on other debt	(12,077)	(10,286)
Debt financing costs	—	(1,009)
Net loss resulting from early retirement of debt and debt restructuring	—	(50)
Dividends paid	(22,264)	(23,966)
Purchases of treasury stock	(232,999)	(192,221)
Other	30	10
Cash used in financing activities	(269,560)	(229,772)
Decrease in cash and cash equivalents, including restricted cash	(89,509)	(27,923)
Cash and cash equivalents, including restricted cash, beginning of period	264,937	273,602
Cash and cash equivalents, including restricted cash, end of period	$ 175,428	$ 245,679
Cash and cash equivalents, including restricted cash, end of period		
Cash and cash equivalents	$ 175,428	$ 245,679
Restricted cash	—	—
	$ 175,428	$ 245,679

The accompanying notes are an integral part of the condensed consolidated financial statements.

Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Statements of Stockholders' Equity
(in thousands)

	Common Stock	Paid-In Capital	Retained Earnings	Treasury Stock at Cost	Accumulated Other Comprehensive Income	Total
			(In thousands)			
Balances, January 1, 2019	$ 250	$ 717,492	$ 527,666	$ (583,883)	$ 43,296	$ 704,821
Dividends on common shares ($0.45/share)	—	—	(8,111)	—	—	(8,111)
Total comprehensive income	—	—	72,741	—	3,094	75,835
Employee stock-based compensation	—	5,651	—	—	—	5,651
Purchase of 872,317 shares of common stock under share repurchase program	—	—	—	(78,249)	—	(78,249)
Balances at March 31, 2019	$ 250	$ 723,143	$ 592,296	$ (662,132)	$ 46,390	$ 699,947
Dividends on common shares ($0.45/share)	—	—	(7,696)	—	—	(7,696)
Total comprehensive income	—	—	62,840	—	398	63,238
Employee stock-based compensation	—	5,822	—	—	—	5,822
Purchase of 697,255 shares of common stock under share repurchase program	—	—	—	(63,392)	—	(63,392)
Warrants exercised	—	31	—	—	—	31
Balances at June 30, 2019	$ 250	$ 728,996	$ 647,440	$ (725,524)	$ 46,788	$ 697,950
Dividends on common shares ($0.45/share)	—	—	(7,281)	—	—	(7,281)
Total comprehensive income	—	—	106,769	—	(6,477)	100,292
Employee stock-based compensation	—	5,833	—	—	—	5,833
Purchase of 1,169,597 shares of common stock under share repurchase program	—	—	—	(91,358)	—	(91,358)
Balances at September 30, 2019	$ 250	$ 734,829	$ 746,928	$ (816,882)	$ 40,311	$ 705,436

Arch Coal, Inc. and Subsidiaries
Condensed Consolidated Statements of Stockholders' Equity
(in thousands)

	Common Stock	Paid-In Capital	Retained Earnings	Treasury Stock at Cost	Accumulated Other Comprehensive Income	Total
			(In thousands)			
Balances, January 1, 2018	$ 250	$ 700,125	$ 247,232	$ (302,109)	$ 20,367	$ 665,865
Dividends on common shares ($0.40/share)	—	—	(8,553)	—	—	(8,553)
Total comprehensive income	—	—	59,985	—	5,899	65,884
Employee stock-based compensation	—	3,845	—	—	—	3,845
Purchase of 407,091 shares of common stock under share repurchase program	—	—	—	(38,589)	—	(38,589)
Warrants exercised	—	10	—	—	—	10
Balances at March 31, 2018	$ 250	$ 703,980	$ 298,664	$ (340,698)	$ 26,266	$ 688,462
Dividends on common shares ($0.40/share)	—	—	(8,217)	—	—	(8,217)
Total comprehensive income	—	—	43,306	—	(8,463)	34,843
Employee stock-based compensation	—	4,147	—	—	—	4,147
Purchase of 960,105 shares of common stock under share repurchase program	—	—	—	(78,287)	—	(78,287)
Warrants exercised	—	—	—	—	—	—
Balances at June 30, 2018	$ 250	$ 708,127	$ 333,753	$ (418,985)	$ 17,803	$ 640,948
Dividends on common shares ($0.40/share)	—	—	(7,823)	—	—	(7,823)
Total comprehensive income	—	—	123,192	—	2,902	126,094
Employee stock-based compensation	—	4,168	—	—	—	4,168
Purchase of 870,358 shares of common stock under share repurchase program	—	—	—	(76,247)	—	(76,247)
Balances at September 30, 2018	$ 250	$ 712,295	$ 449,122	$ (495,232)	$ 20,705	$ 687,140

Arch Coal, Inc. and Subsidiaries
Notes to Condensed Consolidated Financial Statements
(unaudited)

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of Arch Coal, Inc. (“Arch Coal”) and its subsidiaries (“Arch” or the “Company”). Unless the context indicates otherwise, the terms “Arch” and the “Company” are used interchangeably in this Quarterly Report on Form 10-Q. The Company’s primary business is the production of thermal and metallurgical coal from surface and underground mines located throughout the United States, for sale to utility, industrial and steel producers both in the United States and around the world. The Company currently operates mining complexes in West Virginia, Illinois, Wyoming and Colorado. All subsidiaries are wholly-owned. Intercompany transactions and accounts have been eliminated in consolidation.

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial reporting and U.S. Securities and Exchange Commission regulations. In the opinion of management, all adjustments, consisting of normal, recurring accruals considered necessary for a fair presentation, have been included. Results of operations for the three and nine months ended September 30, 2019 are not necessarily indicative of results to be expected for the year endingDecember 31, 2019. These financial statements should be read in conjunction with the audited financial statements and related notes as of and for the year ended December 31, 2018 included in the Company’s Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission.

2. Accounting Policies

Recently Adopted Accounting Guidance

In February 2016, the FASB established Topic 842, Leases, by issuing ASU 2016-02, “Leases” which requires lessees to recognize leases on-balance sheet and disclose key information about leasing arrangements. The ASU was subsequently amended by ASU 2018-01, “Land Easements Practical Expedient for Transition to Topic 842;” ASU 2018-10, “Codification Improvements to Topic 842, Leases;” and ASU 2018-11, “Targeted Improvements.” The new standard establishes a right-of-use (“ROU”) model that requires a lessee to recognize an ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the term of the lease, on a generally straight line basis. Leases of mineral reserves and related land leases have been exempted from the standard. The Company adopted ASU 2016-02 effective January 1, 2019 and elected the option to not restate comparative periods in transition and also elected the “package of practical expedients” within the standard which permits the Company not to reassess its prior conclusions about lease identification, lease classification and initial direct costs. Additionally, the Company made an election to not separate lease and non-lease components for all leases, and will not use hindsight. Finally, the Company will continue its current policy for accounting for land easements as executory contracts. The adoption of the standard had no impact on the Company’s consolidated income statement or statement of cash flows.

In April 2017, the FASB issued ASU 2017-08, “Receivables-Nonrefundable Fees and Other Costs (Subtopic 310-20), Premium Amortization on Purchased Callable Debt Securities.” The new guidance shortens the amortization period for the premium on certain purchased callable debt securities to the earliest call date. The new guidance does not change the accounting for purchased callable debt securities held at a discount. The Company adopted ASU 2017-08 effective January 1, 2019 with no impact on the Company’s financial statements.

In August 2017, the FASB issued ASU 2017-12, “Targeted Improvements to Accounting for Hedging Activities.” The new guidance provides targeted improvements to the accounting for hedging activities to better align an entity’s risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedging results. The Company adopted ASU 2017-12 effective January 1, 2019 with no impact on the Company’s financial statements.

In February 2018, the FASB issued ASU 2018-02, “Income Statement-Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.” ASU 2018-02 provides an option to reclassify stranded tax effects within accumulated other comprehensive income to retained earnings due to the change in the U.S. federal tax rate in the Tax Cuts and Jobs Act of 2017. The Company adopted ASU 2018-02 effective January 1, 2019 with no impact on the Company’s financial statements.

In June 2018, the FASB issued ASU 2018-07, "Compensation-Stock Compensation (Topic 718), Improvements to Non-employee Share-Based Payment Accounting." ASU 2018-07 aligns the measurement and classification guidance for share-based payments to non-employees with the guidance for share-based payments to employees. The Company adopted ASU 2018-07 effective January 1, 2019 with no impact on the Company's financial statements.

In October 2018, the FASB issued ASU 2018-16, "Derivatives and Hedging (Topic 815), Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate of Hedge Accounting Purposes." The Company adopted ASU 2018-16 effective January 1, 2019 with no impact on the Company's financial statements.

3. Joint Venture with Peabody Energy

On June 18, 2019, Arch Coal entered into a definitive implementation agreement (the "Implementation Agreement") with Peabody Energy Corporation ("Peabody"), to establish a joint venture that will combine the respective Powder River Basin and Colorado mining operations of Arch Coal and Peabody. Pursuant to the terms of the Implementation Agreement, Arch Coal will hold a 33.5% economic interest, and Peabody will hold a 66.5% economic interest in the joint venture. At the closing of the joint venture transaction, certain of the respective subsidiaries of Arch Coal and Peabody will enter into an Amended and Restated Limited Liability Company Agreement (the "LLC Agreement"). Under the terms of the LLC Agreement, the governance of the joint venture will be overseen by the joint venture's board of managers, which will initially be comprised of three representatives appointed by Peabody and two representatives appointed by Arch. Decisions of the board of managers will be determined by a majority vote subject to certain specified matters set forth in the LLC Agreement that will require a supermajority vote. Peabody, or one of its affiliates, will initially be appointed as the operator of the joint venture and will manage the day-to-day operations of the joint venture, subject to the supervision of the joint venture's board of managers.

Formation of the joint venture is subject to customary closing conditions, including the termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, the receipt of certain other required regulatory approvals and the absence of injunctions or other legal restraints preventing the formation of the joint venture. Formation of the joint venture does not require approval of the respective stockholders of either Arch or Peabody.

The Company has incurred expenses of $3.8 million and $6.8 million for the three and nine months ended September 30, 2019 related to the regulatory approval process related to the joint venture.

4. Loss on Sale of Lone Mountain Processing, LLC

On September 14, 2017, the Company sold Lone Mountain Processing, LLC and two idled mining companies, Cumberland River Coal LLC and Powell Mountain Energy LLC to Revelation Energy LLC, and recorded a gain on the transaction in that year of $21.3 million. Under the terms of the purchase agreement, Revelation assumed certain traumatic workers compensation claims and pneumoconiosis (occupational disease) benefits. On July 1, 2019, Blackjewel LLC and four affiliates, including Revelation Energy LLC, filed for Chapter 11 bankruptcy. As a result of the bankruptcy, the Company has recorded a $4.3 million charge for these claims during the second quarter of 2019.

5. Preference Rights Lease Application Settlement Income

The Company recorded a $39.0 million gain during the quarter related to a settlement with the United States Department of Interior over a long-standing dispute, dating back to the 1970's, on the valuation and disposition of Preference Rights Lease Application that Arch controlled in northwestern New Mexico with a joint venture partner. As part of the settlement, Arch will receive $67.0 million in the form of royalty credits on its federal coal leases which will be used to settle 50% of the Company's monthly royalty obligations. The Company expects to realize the royalty credits beginning in September 2019 through the next 18-24 months depending on market conditions. Additionally, as part of the settlement, Arch will make a one-time payment of $27.0 million during October 2019 to its' partner in the venture for their ownership interest in the underlying mineral reserves, as well as pay $1.0 million in closing fees.

6. Accumulated Other Comprehensive Income

The following items are included in accumulated other comprehensive income ("AOCI"):

	Derivative Instruments	Pension, Postretirement and Other Post-Employment Benefits	Available-for-Sale Securities	Accumulated Other Comprehensive Income
		(In thousands)		
Balance at December 31, 2018	$ 3,328	$ 40,311	$ (343)	$ 43,296
Unrealized gains	3,836	1,745	603	6,184
Amounts reclassified from AOCI	(6,257)	(2,862)	(50)	(9,169)
Balance at September 30, 2019	$ 907	$ 39,194	$ 210	$ 40,311

The following amounts were reclassified out of AOCI:

	Three Months Ended September 30,		Nine Months Ended September 30,		
Details About AOCI Components	2019	2018	2019	2018	Line Item in the Condensed Consolidated Statement of Operations
(In thousands)					
Coal hedges	$ 2,963	$ (4,824)	$ 5,067	$ (4,824)	Revenues
Interest rate hedges	161	265	1,190	753	Interest expense
	—	—	—	—	Provision for (benefit from) income taxes
	$ 3,124	$ (4,559)	$ 6,257	$ (4,071)	Net of tax
Pension, postretirement and other post-employment benefits					
Amortization of actuarial gains (losses), net	$ 2,236	$ —	$ 2,236	$ —	Non-service related pension and postretirement benefit (costs) credits
Pension settlement	197	613	626	1,984	Non-service related pension and postretirement benefit (costs) credits
	—	—	—	—	Provision for (benefit from) income taxes
	$ 2,433	$ 613	$ 2,862	$ 1,984	Net of tax
Available-for-sale securities	$ 35	$ 8	$ 50	$ 24	Interest and investment income
	—	—	—	—	Provision for (benefit from) income taxes
	$ 35	$ 8	$ 50	$ 24	Net of tax

7. Inventories

Inventories consist of the following:

		September 30, 2019		December 31, 2018
		(In thousands)		
Coal	$	79,746	$	40,982
Repair parts and supplies		91,797		84,488
	$	171,543	$	125,470

The repair parts and supplies are stated net of an allowance for slow-moving and obsolete inventories of $1.7 million at September 30, 2019 and $0.6 million at December 31, 2018.

8. Investments in Available-for-Sale Securities

The Company has invested in marketable debt securities, primarily highly liquid U.S. Treasury securities and investment grade corporate bonds. These investments are held in the custody of a major financial institution. These securities are classified as available-for-sale securities and, accordingly, the unrealized gains and losses are recorded through other comprehensive income.

The Company's investments in available-for-sale marketable securities are as follows:

	September 30, 2019											
									Balance Sheet Classification			
			Gross Unrealized					Fair		Short-Term		Other
		Cost Basis		Gains		Losses		Value		Investments		Assets
	(In thousands)											
Available-for-sale:												
U.S. government and agency securities	$	64,930	$	52	$	(17)	$	64,965	$	64,965	$	—
Corporate notes and bonds		110,917		275		(101)		111,091		111,091		—
Total Investments	$	175,847	$	327	$	(118)	$	176,056	$	176,056	$	—

	December 31, 2018											
									Balance Sheet Classification			
			Gross Unrealized					Fair		Short-Term		Other
		Cost Basis		Gains		Losses		Value		Investments		Assets
	(In thousands)											
Available-for-sale:												
U.S. government and agency securities	$	100,003	$	11	$	(126)	$	99,888	$	99,888	$	—
Corporate notes and bonds		63,137		4		(232)		62,909		62,909		—
Total Investments	$	163,140	$	15	$	(358)	$	162,797	$	162,797	$	—

The aggregate fair value of investments with unrealized losses that were owned for less than a year was $51.7 million and $115.2 million at September 30, 2019 and December 31, 2018, respectively. The aggregate fair value of investments with unrealized losses that were owned for over a year was $0.0 million and $32.4 million at September 30, 2019 and December 31, 2018, respectively. The unrealized losses in the Company's portfolio at September 30, 2019 are the result of normal market fluctuations. The Company does not currently intend to sell these investments before recovery of their amortized cost base.

The debt securities outstanding at September 30, 2019 have maturity dates ranging from the fourth quarter of 2019 through the first quarter of 2021. The Company classifies its investments as current based on the nature of the investments and their availability to provide cash for use in current operations.

9. Derivatives

Interest rate risk management

The Company has entered into interest rate swaps to reduce the variability of cash outflows associated with interest payments on its variable rate term loan. These swaps have been designated as cash flow hedges. For additional information on these arrangements, see Note 11, "Debt and Financing Arrangements," in the Condensed Consolidated Financial Statements.

Diesel fuel price risk management

The Company is exposed to price risk with respect to diesel fuel purchased for use in its operations. The Company anticipates purchasing approximately 40 to 47 million gallons of diesel fuel for use in its operations annually. To protect the Company's cash flows from increases in the price of diesel fuel for its operations, the Company uses forward physical diesel purchase contracts, purchased heating oil call options and New York Mercantile Exchange ("NYMEX") gulf coast diesel swaps and options. At September 30, 2019, the Company had protected the price on the majority of its expected diesel fuel purchases for the remainder of 2019 with approximately 4 million gallons of heating oil call options with an average strike price of $2.30 per gallon and 6 million gallons of NYMEX gulf coast diesel swaps at an average price of approximately $1.92 per gallon. Additionally, the Company has protected approximately 34% of its expected 2020 purchases using gulf coast diesel call options with an average strike price of $2.24 per gallon. At September 30, 2019, the Company had outstanding heating oil call options and NYMEX gulf coast swaps and options of approximately 26 million gallons for the purpose of managing the price risk associated with future diesel purchases. These positions are not designated as hedges for accounting purposes, and therefore, changes in the fair value are recorded immediately to earnings.

Coal price risk management positions

The Company may sell or purchase forward contracts, swaps and options in the over-the-counter coal market in order to manage its exposure to coal prices. The Company has exposure to the risk of fluctuating coal prices related to forecasted, index-priced sales or purchases of coal or to the risk of changes in the fair value of a fixed price physical sales contract. Certain derivative contracts may be designated as hedges of these risks.

At September 30, 2019, the Company held derivatives for risk management purposes that are expected to settle in the following years:

(Tons in thousands)	2019	2020	Total
Coal sales	607	668	1,275
Coal purchases	385	337	722

The Company has also entered into a minimal quantity of natural gas put options to protect the Company from decreases in natural gas prices, which could impact thermal coal demand. These options are not designated as hedges.

Coal trading positions

The Company may sell or purchase forward contracts, swaps and options in the over-the-counter coal market for trading purposes. The Company is exposed to the risk of changes in coal prices on the value of its coal trading portfolio. The estimated future realization of the value of the trading portfolio is $0.2 million of losses during the remainder of 2019 and $0.6 million of losses during 2020.

Tabular derivatives disclosures

The Company has master netting agreements with all of its counterparties which allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. Such netting arrangements reduce the Company's credit exposure related to these counterparties. For classification purposes, the Company records the net fair value of all the positions with a given counterparty as a net asset or liability in the Condensed Consolidated Balance Sheets. The amounts shown in the table below represent the fair value position of individual contracts, and not the net position presented in the accompanying Condensed Consolidated Balance Sheets. The fair value and location of derivatives reflected in the accompanying Condensed Consolidated Balance Sheets are as follows:

	September 30, 2019			December 31, 2018		
Fair Value of Derivatives (In thousands)	**Asset Derivative**	**Liability Derivative**		**Asset Derivative**	**Liability Derivative**	
Derivatives Designated as Hedging Instruments						
Coal	$ 3,842	$ (671)		$ 2,342	$ (805)	
Derivatives Not Designated as Hedging Instruments						
Heating oil -- diesel purchases	383	(629)		532	—	
Coal -- held for trading purposes	20,116	(20,925)		10,329	(10,701)	
Coal -- risk management	18,305	(11,067)		5,672	(19,579)	
Natural gas	—	—		4	(4)	
Total	$ 38,804	$ (32,621)		$ 16,537	$ (30,284)	
Total derivatives	$ 42,646	$ (33,292)		$ 18,879	$ (31,089)	
Effect of counterparty netting	(32,663)	32,663		(17,801)	17,801	
Net derivatives as classified in the balance sheets	$ 9,983	$ (629)	$ 9,354	$ 1,078	$ (13,288)	$ (12,210)

		September 30, 2019	December 31, 2018
Net derivatives as reflected on the balance sheets (in thousands)			
Heating oil and coal	Other current assets	$ 9,983	$ 1,078
Coal	Accrued expenses and other current liabilities	(629)	(13,288)
		$ 9,354	$ (12,210)

The Company had a current asset representing cash collateral posted to a margin account for derivative positions primarily related to coal derivatives of $1.9 million and $24.7 million at September 30, 2019 and December 31, 2018, respectively. These amounts are not included with the derivatives presented in the table above and are included in "other current assets" in the accompanying Condensed Consolidated Balance Sheets.

The effects of derivatives on measures of financial performance are as follows:

Derivatives used in Cash Flow Hedging Relationships (in thousands)
Three Months Ended September 30,

		Gain (Loss) Recognized in Other Comprehensive Income		Gains (Losses) Reclassified from Other Comprehensive Income into Income	
		2019	2018	2019	2018
Coal sales	(1)	$ 225	$ (4,631)	$ 2,963	$ (6,996)
Coal purchases	(2)	(34)	424	—	2,171
Totals		$ 191	$ (4,207)	$ 2,963	$ (4,825)

No ineffectiveness or amounts excluded from effectiveness testing relating to the Company's cash flow hedging relationships were recognized in the results of operations in the three month periods ended September 30, 2019 and 2018.

Derivatives Not Designated as Hedging Instruments (in thousands)
Three Months Ended September 30,

		Gain (Loss) Recognized	
		2019	2018
Coal trading — realized and unrealized	(3)	$ (127)	$ (928)
Coal risk management — unrealized	(3)	(1,417)	(9,486)
Natural gas trading— realized and unrealized	(3)	14	(4)
Change in fair value of coal derivatives and coal trading activities, net total		$ (1,530)	$ (10,418)
Coal risk management— realized	(4)	$ 3,216	$ (2,537)
Heating oil — diesel purchases	(4)	$ (1,670)	$ 719

Location in statement of operations:
(1) — Revenues
(2) — Cost of sales
(3) — Change in fair value of coal derivatives and coal trading activities, net
(4) — Other operating (income) expense, net

Derivatives used in Cash Flow Hedging Relationships (in thousands)
Nine Months Ended September 30,

		Gain (Loss) Recognized in Other Comprehensive Income		Gains (Losses) Reclassified from Other Comprehensive Income into Income	
		2019	2018	2019	2018
Coal sales	(1)	$ 9,472	$ (14,862)	$ 5,750	$ (6,996)
Coal purchases	(2)	(940)	2,587	(686)	2,171
Totals		$ 8,532	$ (12,275)	$ 5,064	$ (4,825)

No ineffectiveness or amounts excluded from effectiveness testing relating to the Company's cash flow hedging relationships were recognized in the results of operations in the nine month periods ended September 30, 2019 and 2018.

Derivatives Not Designated as Hedging Instruments (in thousands)
Nine Months Ended September 30,

		Gain (Loss) Recognized	
		2019	2018
Coal trading — realized and unrealized	(3)	$ (1,228)	$ 14
Coal risk management — unrealized	(3)	21,145	(22,116)
Natural gas trading— realized and unrealized	(3)	(66)	(40)
Change in fair value of coal derivatives and coal trading activities, net total		$ 19,851	$ (22,142)
Coal risk management— realized	(4)	$ (2,076)	$ (5,217)
Heating oil — diesel purchases	(4)	$ (2,402)	$ 4,394

Location in statement of operations:
(1) — Revenues
(2) — Cost of sales
(3) — Change in fair value of coal derivatives and coal trading activities, net
(4) — Other operating (income) expense, net

Based on fair values at September 30, 2019, amounts on derivative contracts designated as hedge instruments in cash flow hedges to be reclassified from other comprehensive income into earnings during the next twelve months are gains of approximately $3.1 million.

10. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	September 30, 2019	December 31, 2018
	(In thousands)	
Payroll and employee benefits	$ 49,566	$ 57,166
Taxes other than income taxes	71,738	75,017
Interest	131	156
Acquired sales contracts	203	570
Workers' compensation	18,053	20,044
Asset retirement obligations	12,297	13,113
Other	9,951	17,448
	$ 161,939	$ 183,514

11. Debt and Financing Arrangements

	September 30, 2019	December 31, 2018
	(In thousands)	
Term loan due 2024 ($292.5 million face value)	$ 291,524	$ 293,626
Other	18,471	30,449
Debt issuance costs	(5,289)	(6,092)
	304,706	317,983
Less: current maturities of debt	11,925	17,797
Long-term debt	$ 292,781	$ 300,186

Term Loan Facility

In 2017, the Company entered into a senior secured term loan credit agreement (the "Credit Agreement") in an aggregate principal amount of$300 million (the "Term Loan Debt Facility") with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the other financial institutions from time to time party thereto (collectively, the "Lenders"). The Term Loan Debt Facility was issued at 99.50% of the face amount and will mature on March 7, 2024. The term loans provided under the Term Loan Debt Facility (the "Term Loans") are subject to quarterly principal amortization payments in an amount equal to $750,000.

During 2018, the Company entered into the Second Amendment (the "Second Amendment") to its Credit Agreement. The Second Amendment reduced the interest rate on its Term Loan Debt Facility to, at the option of Arch Coal, either (i) the London interbank offered rate ("LIBOR") plus an applicable margin of 2.75%, subject to a 1.00% LIBOR floor, or (ii) a base rate plus an applicable margin of1.75%. The LIBOR floor remains at 1.00%. There is no change to the maturities as a result of the Second Amendment.

The Term Loan Debt Facility is guaranteed by all existing and future wholly owned domestic subsidiaries of the Company (collectively, the "Subsidiary Guarantors" and, together with Arch Coal, the "Loan Parties"), subject to customary exceptions, and is secured by first priority security interests on substantially all assets of the Loan Parties, including 100% of the voting equity interests of directly owned domestic subsidiaries and65% of the voting equity interests of directly owned foreign subsidiaries, subject to customary exceptions.

The Company has the right to prepay Term Loans at any time, and from time to time, in whole or in part without premium or penalty, upon written notice, except that any prepayment of Term Loans that bear interest at the LIBOR Rate other than at the end of the applicable interest periods therefor shall be made with reimbursement for any funding losses and redeployment costs of the Lenders resulting therefrom.

The Term Loan Debt Facility is subject to certain usual and customary mandatory prepayment events, including100% of net cash proceeds of (i) debt issuances (other than debt permitted to be incurred under the terms of the Term Loan Debt Facility) and (ii) non-ordinary course asset sales or dispositions, subject to customary thresholds, exceptions and reinvestment rights.

The Term Loan Debt Facility contains customary affirmative covenants and representations.

The Term Loan Debt Facility also contains customary negative covenants, which, among other things, and subject to certain exceptions, include restrictions on (i) indebtedness, (ii) liens, (iii) liquidations, mergers, consolidations and acquisitions, (iv) disposition of assets or subsidiaries, (v) affiliate transactions, (vi) creation or ownership of certain subsidiaries, partnerships and joint ventures, (vii) continuation of or change in business, (viii) restricted payments, (ix) prepayment of subordinated and junior lien indebtedness, (x) restrictions in agreements on dividends, intercompany loans and granting liens on the collateral, (xi) loans and investments, (xii) sale and leaseback transactions, (xiii) changes in organizational documents and fiscal year and (xiv) transactions with respect to bonding subsidiaries. The Term Loan Debt Facility does not contain any financial maintenance covenants.

The Term Loan Debt Facility contains customary events of default, subject to customary thresholds and exceptions, including, among other things, (i) nonpayment of principal and nonpayment of interest and fees, (ii) a material inaccuracy of a representation or warranty at the time made, (iii) a failure to comply with any covenant, subject to customary grace periods in the case of certain affirmative covenants, (iv) cross-events of default to indebtedness of at least $50 million, (v) cross-events of default to surety, reclamation or similar bonds securing obligations with an aggregate face amount of at least$50 million, (vi) uninsured judgments in excess of $50 million, (vii) any loan document shall cease to be a legal, valid and binding agreement, (viii) uninsured losses or proceedings against assets with a value in excess of $50 million, (ix) certain ERISA events, (x) a change of control or (xi) bankruptcy or insolvency proceedings relating to the Company or any material subsidiary of the Company.

Accounts Receivable Securitization Facility

In 2018, the Company extended and amended its existing trade accounts receivable securitization facility provided to Arch Receivable Company, LLC, a special-purpose entity that is a wholly owned subsidiary of Arch Coal ("Arch Receivable") (the "Extended Securitization Facility"), which supports the issuance of letters of credit and requests for cash advances. The amendment to the Extended Securitization Facility maintained the $160 million borrowing capacity and extended the maturity date to the date that is three years after the Securitization Facility Closing Date. Additionally, the amendment provided the Company the opportunity to use credit insurance to increase the pool of eligible receivables for borrowing. Pursuant to the Extended Securitization Facility, Arch Receivable also agreed to a revised schedule of fees payable to the administrator and the providers of the Extended Securitization Facility.

The Extended Securitization Facility will terminate at the earliest of (i)three years from the Securitization Facility Closing Date, (ii) if the Liquidity (defined in the Extended Securitization Facility and consistent with the definition in the Inventory Facility) is less than $175 million for a period of 60 consecutive days, the date that is the 364th day after the first day of such 60 consecutive day period, and (iii) the occurrence of certain predefined events substantially consistent with the existing transaction documents. Under the Extended Securitization Facility, Arch Receivable, Arch Coal and certain of Arch Coal's subsidiaries party to the Extended Securitization Facility have granted to the administrator of the Extended Securitization Facility a first priority security interest in eligible trade accounts receivable generated by such parties from the sale of coal and all proceeds thereof. As of September 30, 2019, letters of credit totaling $15.5 million were outstanding under the facility with $92.6 million available for borrowings.

Inventory-Based Revolving Credit Facility

In 2017, the Company and certain subsidiaries of Arch Coal entered into a senior secured inventory-based revolving credit facility in an aggregate principal amount of $40 million (the "Inventory Facility") with Regions Bank ("Regions") as administrative agent and collateral agent, as lender and swingline lender (in such capacities, the "Lender") and as letter of credit issuer. Availability under the Inventory Facility is subject to a borrowing base consisting of (i) 85% of the net orderly liquidation value of eligible coal inventory, (ii) the lesser of (x) 85% of the net orderly liquidation value of eligible parts and supplies inventory and (y) 35% of the amount determined pursuant to clause (i), and (iii)100% of Arch Coal's Eligible Cash (defined in the Inventory Facility), subject to reduction for reserves imposed by Regions.

In 2018, the Company and certain subsidiaries of Arch Coal amended and extended the Inventory Facility by increasing the facility size by$10 million, bringing the total aggregate amount available to $50 million, subject to borrowing base calculations described above.

The commitments under the Inventory Facility will terminate on the date that is the earliest to occur of (i) the date, if any, that is364 days following the first day that Liquidity (defined in the Inventory Facility and consistent with the definition in the Extended Securitization Facility (as defined below)) is less than $250 million for a period of 60 consecutive days and (ii) the date, if any, that is60 days following the maturity, termination or repayment in full of the Extended Securitization Facility.

Revolving loan borrowings under the Inventory Facility bear interest at a per annum rate equal to, at the option of Arch Coal, either the base rate or the London interbank offered rate plus, in each case, a margin ranging from 2.00% to 2.50% (in the case of LIBOR loans) and1.00% to 1.50% (in the case of base rate loans) determined using a Liquidity-based grid. Letters of credit under the Inventory Facility are subject to a fee in an amount equal to the applicable margin for LIBOR loans, plus customary fronting and issuance fees.

All existing and future direct and indirect domestic subsidiaries of Arch Coal, subject to customary exceptions, will either constitute co-borrowers under or guarantors of the Inventory Facility (collectively with Arch Coal, the "Loan Parties"). The Inventory Facility is secured by first priority security interests in the ABL Priority Collateral (defined in the Inventory Facility) of the Loan Parties and second priority security interests in substantially all other assets of the Loan Parties, subject to customary exceptions (including an exception for the collateral that secures the Extended Securitization Facility).

Arch Coal has the right to prepay borrowings under the Inventory Facility at any time and from time to time in whole or in part without premium or penalty, upon written notice, except that any prepayment of such borrowings that bear interest at the LIBOR rate other than at the end of the applicable interest periods therefore shall be made with reimbursement for any funding losses and redeployment costs of the Lender resulting therefrom.

The Inventory Facility is subject to certain usual and customary mandatory prepayment events, including non-ordinary course asset sales or dispositions, subject to customary thresholds, exceptions (including exceptions for required prepayments under Arch Coal's term loan facility) and reinvestment rights.

The Inventory Facility contains certain customary affirmative and negative covenants; events of default, subject to customary thresholds and exceptions; and representations, including certain cash management and reporting requirements that are customary for asset-based credit facilities. The Inventory Facility also includes a requirement to maintain Liquidity equal to or exceeding $175 million at all times. As of September 30, 2019, letters of credit totaling $35.9 million were outstanding under the facility with $14.1 million available for borrowings.

Interest Rate Swaps

The Company has entered into a series of interest rate swaps to fix a portion of the LIBOR interest rate within the term loan. The interest rate swaps qualify for cash flow hedge accounting treatment and as such, the change in the fair value of the interest rate swaps is recorded on the Company's Condensed Consolidated Balance Sheet as an asset or liability with the effective portion of the gains or losses reported as a component of accumulated other comprehensive income and the ineffective portion reported in earnings. As interest payments are made on the term loan, amounts in accumulated other comprehensive income will be reclassified into earnings through interest expense to reflect a net interest on the term loan equal to the effective yield of the fixed rate of the swap plus 2.75% which is the spread on the revised LIBOR term loan. In the event that an interest rate swap is terminated prior to maturity, gains or losses in accumulated other comprehensive income will remain deferred and be reclassified into earnings in the periods which the hedged forecasted transaction affects earnings.

Below is a summary of the Company's outstanding interest rate swap agreements designated as hedges as ofSeptember 30, 2019:

Notional Amount (in millions)	Effective Date	Fixed Rate	Receive Rate	Expiration Date
$250.0	June 28, 2019	2.025%	1-month LIBOR	June 30, 2020
$200.0	June 30, 2020	2.249%	1-month LIBOR	June 30, 2021
$100.0	June 30, 2021	2.315%	1-month LIBOR	June 30, 2023

The fair value of the interest rate swaps at September 30, 2019 is a liability of $3.4 million, which is recorded within Other noncurrent liabilities, with the offset to accumulated other comprehensive income on the Company's Condensed Consolidated Balance Sheet. The Company realized $0.2 million and $1.2 million of gains during the three and nine months ended September 30, 2019, respectively, related to settlements of the interest rate swaps which was recorded to interest expense on the Company's Condensed Consolidated Income Statements. The interest rate swaps are classified as level 2 within the fair value hierarchy.

12. Income Taxes

A reconciliation of the statutory federal income tax provision at the statutory rate to the actual provision for (benefit from) income taxes follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Income tax provision at statutory rate	$ 22,494	$ 16,375	$ 51,000	$ 37,245
Percentage depletion allowance	(6,347)	(5,964)	(14,111)	(13,059)
State taxes, net of effect of federal taxes	1,825	4,528	3,668	5,865
Change in valuation allowance	(19,120)	(44,278)	(42,925)	(62,234)
Current expense associated with uncertain tax positions	1,495	511	2,932	(599)
Impact of Tax Cuts and Jobs Act of 2017	—	(19,780)	—	(19,780)
Other, net	—	3,393	(56)	3,437
Provision for (benefit from) income taxes	$ 347	$ (45,215)	$ 508	$ (49,125)

During the prior year quarter, the IRS completed an audit of alternative minimum tax ("AMT") net operating loss carryback claims the Company filed in prior periods. In addition, the Company filed an amended 2016 return which changed the amount of available tax attributes and the mix used to offset its bankruptcy cancellation of indebtedness income as of January 1, 2017. As a result, the Company increased AMT credits and reduced other tax attributes as of that date that were available for attribute reduction. The AMT credits did not require a valuation allowance to be recorded against them due to the law changes enacted as part of the Tax Cut and Jobs Act of 2017 (the "Act"), while the Company's other tax attributes are fully offset by a valuation allowance. The associated valuation allowance released related to the shift in attributes reflects what the Company believes will be realized. The Company anticipates all AMT credits will be converted to cash in the next five years as provided by the Act. In total, these changes resulted in a recorded benefit from income taxes of $45.2 million, which was net of a $24.9 million uncertain tax position charge.

13. Fair Value Measurements

The hierarchy of fair value measurements assigns a level to fair value measurements based on the inputs used in the respective valuation techniques. The levels of the hierarchy, as defined below, give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs.

- Level 1 is defined as observable inputs such as quoted prices in active markets for identical assets. Level 1 assets include U.S. Treasury securities, and coal swaps and futures that are submitted for clearing on the New York Mercantile Exchange.

- Level 2 is defined as observable inputs other than Level 1 prices. These include quoted prices for similar assets or liabilities in an active market, quoted prices for identical assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The Company's level 2 assets and liabilities include U.S. government agency securities, coal commodity contracts and interest rate swaps with fair values derived from quoted prices in over-the-counter markets or from prices received from direct broker quotes.

- Level 3 is defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions. These include the Company's commodity option contracts (coal, natural gas and heating oil) valued using modeling techniques, such as Black-Scholes, that require the use of inputs, particularly volatility, that are rarely observable. Changes in the unobservable inputs would not have a significant impact on the reported Level 3 fair values at September 30, 2019.

The table below sets forth, by level, the Company's financial assets and liabilities that are recorded at fair value in the accompanying Condensed Consolidated Balance Sheet:

	September 30, 2019			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Assets:				
Investments in marketable securities	$ 176,056	$ 64,965	$ 111,091	$ —
Derivatives	9,983	8,366	1,234	383
Total assets	$ 186,039	$ 73,331	$ 112,325	$ 383
Liabilities:				
Derivatives	$ 4,071	$ —	$ 4,130	$ (59)

The Company's contracts with its counterparties allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. For classification purposes, the Company records the net fair value of all the positions with these counterparties as a net asset or liability. Each level in the table above displays the underlying contracts according to their classification in the accompanying Condensed Consolidated Balance Sheet, based on this counterparty netting.

The following table summarizes the change in the fair values of financial instruments categorized as Level 3.

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
	(In thousands)	
Balance, beginning of period	$ 755	$ 532
Realized and unrealized gains recognized in earnings, net	(1,252)	(1,794)
Purchases	562	1,562
Issuances	(45)	(45)
Settlements	422	187
Ending balance	$ 442	$ 442

Net unrealized losses of $1.0 million and $1.9 million were recognized in the Condensed Consolidated Income Statements within Other operating income, net during the three and nine months ended September 30, 2019, respectively, related to Level 3 financial instruments held on September 30, 2019.

Fair Value of Long-Term Debt

At September 30, 2019 and December 31, 2018, the fair value of the Company's debt, including amounts classified as current, was $306.9 million and $318.6 million, respectively. Fair values are based upon observed prices in an active market, when available, or from valuation models using market information, which fall into Level 2 in the fair value hierarchy.

14. Earnings per Common Share

The Company computes basic net income per share using the weighted average number of common shares outstanding during the period. Diluted net income per share is computed using the weighted average number of common shares and the effect of potentially dilutive securities outstanding during the period. Potentially dilutive securities may consist of warrants, restricted stock units or other contingently issuable shares. The dilutive effect of outstanding warrants, restricted stock units and other contingently issuable shares is reflected in diluted earnings per share by application of the treasury stock method.

The following table provides the basis for basic and diluted earnings per share by reconciling the denominators of the computations:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Weighted average shares outstanding:				
Basic weighted average shares outstanding	15,736	19,250	16,591	20,102
Effect of dilutive securities	1,116	958	1,153	938
Diluted weighted average shares outstanding	16,852	20,208	17,744	21,040

15. Workers Compensation Expense

The Company is liable under the Federal Mine Safety and Health Act of 1969, as subsequently amended, to provide for pneumoconiosis (occupational disease) benefits to eligible employees, former employees and dependents. The Company currently provides for federal claims principally through a self-insurance program. The Company is also liable under various state workers' compensation statutes for occupational disease benefits. The occupational disease benefit obligation represents the present value of the actuarially computed present and future liabilities for such benefits over the employees' applicable years of service.

In addition, the Company is liable for workers' compensation benefits for traumatic injuries which are calculated using actuarially-based loss rates, loss development factors and discounted based on a risk free rate. Traumatic workers' compensation claims are insured with varying retentions/deductibles, or through state-sponsored workers' compensation programs.

Workers' compensation expense consists of the following components:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Self-insured occupational disease benefits:				
Service cost	$ 1,670	$ 1,860	$ 5,008	$ 5,580
Interest cost(1)	1,354	1,196	4,062	3,585
Total occupational disease	$ 3,024	$ 3,056	$ 9,070	$ 9,165
Traumatic injury claims and assessments	2,088	(2,069)	6,642	3,130
Total workers' compensation expense	$ 5,112	$ 987	$ 15,712	$ 12,295

(1) In accordance with the adoption of ASU 2017-07, "Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," these costs are recorded within Nonoperating expenses in the Condensed Consolidated Income Statements on the line item "Non-service related pension and postretirement benefit costs."

16. Employee Benefit Plans

The following table details the components of pension benefit costs (credits):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Interest cost[1]	$ 1,922	$ 2,376	$ 6,439	$ 6,917
Expected return on plan assets[1]	(2,699)	(2,906)	(8,146)	(9,067)
Pension settlement[1]	(197)	(613)	(626)	(1,984)
Amortization of prior service costs (credits)	4	—	4	—
Net benefit credit	$ (970)	$ (1,143)	$ (2,329)	$ (4,134)

The following table details the components of other postretirement benefit costs:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Service cost	$ 120	$ 140	$ 360	$ 419
Interest cost[1]	876	918	2,629	2,755
Amortization of other actuarial losses (gains)	(2,236)	—	(2,236)	—
Net benefit cost (credit)	$ (1,240)	$ 1,058	$ 753	$ 3,174

(1) In accordance with the adoption of ASU 2017-07, "Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," these costs are recorded within Nonoperating expenses in the Condensed Consolidated Income Statements on the line item "Non-service related pension and postretirement benefit costs."

17. Commitments and Contingencies

The Company accrues for costs related to contingencies when a loss is probable and the amount is reasonably determinable. Disclosure of contingencies is included in the financial statements when it is at least reasonably possible that a material loss or an additional material loss in excess of amounts already accrued may be incurred.

In addition, the Company is a party to numerous other claims and lawsuits with respect to various matters. The ultimate resolution of any such legal matter could result in outcomes that may be materially different from amounts the Company has accrued for such matters. The Company believes it has recorded adequate reserves for these matters.

18. Segment Information

The Company's reportable business segments are based on two distinct lines of business, metallurgical and thermal, and may include a number of mine complexes. The Company manages its coal sales by market, not by individual mining complex. Geology, coal transportation routes to customers, and regulatory environments also have a significant impact on the Company's marketing and operations management. Mining operations are evaluated based on Adjusted EBITDA, per-ton cash operating costs (defined as including all mining costs except depreciation, depletion, amortization, accretion on asset retirement obligations, and pass-through transportation expenses), and on other non-financial measures, such as safety and environmental performance. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing the Company's financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. The Company uses Adjusted EBITDA to measure the operating performance of its segments and allocate resources to the segments. Furthermore, analogous measures are used by industry analysts and investors to evaluate the Company's operating performance. Investors should be aware that the Company's presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The Company reports its results of operations primarily through the following reportable segments: Powder River Basin (PRB) segment containing the Company's primary thermal operations in Wyoming; the Metallurgical (MET) segment, containing the Company's metallurgical operations in West Virginia, and the Other Thermal segment containing the Company's supplementary thermal operations in Colorado, Illinois, and West Virginia.

Operating segment results for the three and nine months ended September 30, 2019 and 2018, are presented below. The Company measures its segments based on "adjusted earnings before interest, taxes, depreciation, depletion, amortization, accretion on asset retirements obligations, and nonoperating expenses (Adjusted EBITDA)." Adjusted EBITDA does not reflect mine closure or impairment costs, since those are not reflected in the operating income reviewed by management. The Corporate, Other and Eliminations grouping includes these charges, as well as the change in fair value of coal derivatives and coal trading activities, net; corporate overhead; land management activities; other support functions; and the elimination of intercompany transactions.

	PRB	MET	Other Thermal	Corporate, Other and Eliminations	Consolidated
			(in thousands)		
Three Months Ended September 30, 2019					
Revenues	$ 269,967	$ 254,493	$ 94,052	$ 955	$ 619,467
Adjusted EBITDA	50,153	70,814	16,659	(31,005)	106,621
Depreciation, depletion and amortization	5,956	19,962	3,852	632	30,402
Accretion on asset retirement obligation	3,135	531	603	868	5,137
Total assets	236,656	609,378	148,994	939,572	1,934,600
Capital expenditures	5,402	36,475	6,837	738	49,452
Three Months Ended September 30, 2018					
Revenues	$ 261,927	$ 236,328	$ 130,663	$ 4,262	$ 633,180
Adjusted EBITDA	48,646	81,250	25,200	(30,202)	124,894
Depreciation, depletion and amortization	9,114	18,106	3,924	631	31,775
Accretion on asset retirement obligation	4,885	469	565	1,073	6,992
Total assets	374,092	561,989	127,904	933,637	1,997,622
Capital expenditures	3,458	17,827	3,332	1,076	25,693
Nine Months Ended September 30, 2019					
Revenues	$ 692,845	$ 769,000	$ 278,235	$ 4,792	$ 1,744,872
Adjusted EBITDA	85,433	264,284	33,699	(63,977)	319,439
Depreciation, depletion and amortization	15,702	53,687	10,976	1,834	82,199
Accretion on asset retirement obligation	9,406	1,592	1,810	2,603	15,411
Total assets	236,656	609,378	148,994	939,572	1,934,600
Capital expenditures	19,026	98,849	16,299	3,222	137,396
Nine Months Ended September 30, 2018					
Revenues	$ 737,233	$ 733,707	$ 321,997	$ 7,887	$ 1,800,824
Adjusted EBITDA	102,639	251,649	52,710	(91,806)	315,192
Depreciation, depletion and amortization	25,841	53,109	11,459	1,618	92,027
Accretion on asset retirement obligation	14,656	1,406	1,696	3,219	20,977
Total assets	374,092	561,989	127,904	933,637	1,997,622
Capital expenditures	7,221	35,555	7,097	5,869	55,742

A reconciliation of net income to adjusted EBITDA follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Net income	$ 106,769	$ 123,192	$ 242,350	$ 226,483
Provision for (benefit from) income taxes	347	(45,215)	508	(49,125)
Interest expense, net	340	3,378	4,916	10,998
Depreciation, depletion and amortization	30,402	31,775	82,199	92,027
Accretion on asset retirement obligations	5,137	6,992	15,411	20,977
Amortization of sales contracts, net	(153)	3,241	(77)	9,540
Loss on sale of Lone Mountain Processing, LLC	—	—	4,304	—
Preference Rights Lease Application (PRLA) settlement income	(39,000)	—	(39,000)	—
Net loss resulting from early retirement of debt and debt restructuring	—	—	—	485
Non-service related pension and postretirement benefit costs	(975)	971	2,127	2,206
Reorganization items, net	—	560	(71)	1,601
Costs associated with proposed joint venture with Peabody Energy	3,754	—	6,772	—
Adjusted EBITDA	$ 106,621	$ 124,894	$ 319,439	$ 315,192

19. Revenue Recognition

ASC 606-10-50-5 requires that entities disclose disaggregated revenue information in categories (such as type of good or service, geography, market, type of contract, etc.) that depict how the nature, amount, timing, and uncertainty of revenue and cash flow are affected by economic factors. ASC 606-10-55-89 explains that the extent to which an entity's revenue is disaggregated depends on the facts and circumstances that pertain to the entity's contracts with customers and that some entities may need to use more than one type of category to meet the objective for disaggregating revenue.

In general, the Company's business segmentation is aligned according to the nature and economic characteristics of its coal and customer relationships and provides meaningful disaggregation of each segment's results. The Company has further disaggregated revenue between North America and Seaborne revenues which depicts the pricing and contract differences between the two. North America revenue is characterized by contracts with a term of one year or longer and typically the pricing is fixed; whereas Seaborne revenue generally is derived by spot or short term contracts with an indexed based pricing mechanism.

	PRB	MET	Other Thermal	Corporate, Other and Eliminations	Consolidated
			(in thousands)		
Three Months Ended September 30, 2019					
North America revenues	$ 269,967	$ 63,755	$ 47,571	$ 955	$ 382,248
Seaborne revenues	—	190,738	46,481	—	237,219
Total revenues	$ 269,967	$ 254,493	$ 94,052	$ 955	$ 619,467
Three Months Ended September 30, 2018					
North America revenues	$ 261,927	$ 49,698	$ 56,051	$ 4,262	$ 371,938
Seaborne revenues	—	186,630	74,612	—	261,242
Total revenues	$ 261,927	$ 236,328	$ 130,663	$ 4,262	$ 633,180
Nine Months Ended September 30, 2019					
North America revenues	$ 692,845	$ 163,317	$ 141,985	$ 4,792	$ 1,002,939
Seaborne revenues	—	605,683	136,250	—	741,933
Total revenues	$ 692,845	$ 769,000	$ 278,235	$ 4,792	$ 1,744,872
Nine Months Ended September 30, 2018					
North America revenues	$ 735,322	$ 117,699	$ 140,265	$ 7,887	$ 1,001,173
Seaborne revenues	1,911	616,008	181,732	—	799,651
Total revenues	$ 737,233	$ 733,707	$ 321,997	$ 7,887	$ 1,800,824

As of September 30, 2019, the Company has outstanding performance obligations for the remainder of 2019 of 17.3 million tons of fixed price contracts and 1.8 million tons of variable price contracts. Additionally, the Company has outstanding performance obligations beyond 2019 of approximately 96.8 million tons of fixed price contracts and 6.0 million tons of variable price contracts.

20. Leases

The Company has operating leases for mining equipment, office equipment and office space with remaining lease terms ranging from less than1 year to approximately 8 years. Some of these leases include both lease and non-lease components which are accounted for as a single lease component as the Company has elected the practical expedient to combine these components for all leases. As most of the leases do not provide an implicit rate, the Company calculated the ROU assets and lease liabilities using its' secured incremental borrowing rate at the lease commencement date. The Company currently does not have any finance leases outstanding.

Information related to leases was as follows:

		Three Months Ended September 30, 2019
		(In thousands)
Operating lease information:		
Operating lease cost	$	1,071
Operating cash flows from operating leases		1,078
Weighted average remaining lease term in years		6.19
Weighted average discount rate		5.5%

Future minimum lease payments under non-cancellable leases as of September 30, 2019 were as follows:

Year		Amount
		(In thousands)
2019	$	1,024
2020		3,616
2021		3,367
2022		3,292
2023		3,261
Thereafter		11,153
Total minimum lease payments	$	25,713
Less imputed interest		(4,725)
Total operating lease liability	$	20,988
As reflected on balance sheet:		
Accrued expenses and other current liabilities	$	2,713
Other noncurrent liabilities		18,275
Total operating lease liability	$	20,988

At September 30, 2019, the Company had a $20.3 million ROU operating lease asset recorded within "Other noncurrent assets" on the Condensed Consolidated Balance Sheet.

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21. Subsequent Events

During September 2019, the Company entered into a definitive agreement to acquire 20 million tons of low-cost, high quality, High-Vol A coking coal reserves directly adjacent to its Leer mine for $52.5 million. The reserves are contiguous to the existing Leer mine reserves and accessible underground by the longwall operation without meaningful incremental capital. The reserve addition is expected to extend the life of the Leer mine approximately six years.

Closing of the transaction is subject to title work and satisfaction of closing conditions and is anticipated to close during the fourth quarter of 2019.

Item 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Cautionary Notice Regarding Forward-Looking Statements

This report contains “forward-looking statements” - that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as “should,” “appears,” “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties arise from our emergence from Chapter 11 bankruptcy protection; from changes in the demand for our coal by the domestic electric generation and steel industries; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from competition within our industry and with producers of competing energy sources; from our ability to successfully acquire or develop coal reserves; from operational, geological, permit, labor and weather-related factors, from the Tax Cuts and Jobs Act and other tax reforms; from the effects of foreign and domestic trade policies, actions or disputes; from fluctuations in the amount of cash we generate from operations which could impact, among other things, our ability to pay dividends or repurchase shares in accordance with our announced capital allocation plan; from our ability to successfully integrate the operations that we acquire; from our ability to complete the joint venture transaction with Peabody Energy Corporation (“Peabody”) in a timely manner, including obtaining regulatory approvals and satisfying other closing conditions; from our ability to achieve the expected synergies from the joint venture; from our ability to successfully integrate the operations of certain mines in the joint venture; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. For a more detailed description of some of the risks and uncertainties that may affect our future results, you should see the “Risk Factors” in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018 and subsequent Form 10-Q filings.

Overview

Our results for the third quarter of 2019 were impacted by a softening of metallurgical coal markets, and domestic and international thermal coal markets faced continued pressure. Metallurgical coal markets weakened in the third quarter of 2019, as global economic growth slowed. Declining margins for steel producers have led to announced production curtailments, particularly in Europe, that have negatively impacted spot demand for coking coal as well as prompt and forward coking coal prices. We believe the current softness in coking coal pricing is demand driven, and that higher cost marginal production sources will be pressured at current prompt and forward pricing levels. Global capital investment in new production capacity has been limited, and the current pricing environment will likely further limit capital investment. We believe that this long term limited capital investment in the industry and pressure on marginal production sources will provide support to coking coal markets in the long term. The ongoing implementation of tariffs and trade disputes appear to be contributing factors in the slowing of global economic growth, particularly in Europe and China.

Demand for domestic thermal coal in the current quarter benefited from the normal summer seasonal increase in demand and recovery from the negative impacts of flooding in the High Plains and Midwest that disrupted rail transportation in the first half of the year. Current quarter natural gas pricing remained meaningfully lower than during the prior year quarter due to increased production and higher levels of storage for the competing fuel. The low natural gas pricing served to mute the seasonal increase in thermal coal demand. By the end of the current quarter, generator coal stockpiles rose above historically normal levels based on days of burn. International thermal coal market pricing remained at depressed levels that are uneconomic for effectively all of our thermal operations. However, the forward positions we entered into in previous periods allowed our operations to continue to economically ship coal into these markets throughout the current quarter.

Results of Operations

Three Months Ended September 30, 2019 and 2018

Revenues. Our revenues include sales to customers of coal produced at our operations and coal purchased from third parties. Transportation costs are included in cost of coal sales and amounts billed by us to our customers for transportation are included in revenues.

Coal Sales. The following table summarizes information about our coal sales during thethree months ended September 30, 2019 and 2018:

	Three Months Ended September 30,		
	2019	2018	(Decrease) / Increase
		(In thousands)	
Coal sales	$ 619,467	$ 633,180	$ (13,713)
Tons sold	26,257	26,063	194

On a consolidated basis, coal sales in the third quarter of 2019 were approximately $13.7 million or 2.2% less than in thethird quarter of 2018, while tons sold increased approximately 0.2 million tons or 0.7%. Coal sales from Metallurgical operations increased approximately $18.2 million on increased shipment volume, offset by decreased pricing. Powder River Basin coal sales increased approximately $8.0 million due to increased volume, and Other Thermal coal sales decreased approximately $36.6 million due to decreased volume and pricing. See discussion in "Operational Performance" for further information about segment results.

Costs, expenses and other. The following table summarizes costs, expenses and other components of operating income during thethree months ended September 30, 2019 and 2018:

	Three Months Ended September 30,		
	2019	2018	Increase (Decrease) in Net Income
		(In thousands)	
Cost of sales (exclusive of items shown separately below)	$ 491,004	$ 482,029	$ (8,975)
Depreciation, depletion and amortization	30,402	31,775	1,373
Accretion on asset retirement obligations	5,137	6,992	1,855
Amortization of sales contracts, net	(153)	3,241	3,394
Change in fair value of coal derivatives and coal trading activities, net	1,530	10,418	8,888
Selling, general and administrative expenses	24,566	22,909	(1,657)
Costs related to proposed joint venture with Peabody Energy	3,754	—	(3,754)
Preference Rights Lease Application settlement income	(39,000)	—	39,000
Other operating income, net	(4,254)	(7,070)	(2,816)
Total costs, expenses and other	$ 512,986	$ 550,294	$ 37,308

Cost of sales. Our cost of sales for thethird quarter of 2019 increased approximately $9.0 million or 1.9% versus the third quarter of 2018. The increase consists primarily of additional repairs and supplies costs of approximately $12.1 million, $11.1 million due to a draw down of coal inventory versus a build in coal inventories in the prior year quarter, and $7.2 million in additional labor related costs. These cost increases were partially offset by reductions of approximately $7.0 million in purchased coal costs, $3.7 million in transportation costs, and $8.3 million in operating taxes and royalties. See discussion in "Operational Performance" for further information about segment results.

Depreciation, depletion, and amortization. The decrease in depreciation, depletion, and amortization in thethird quarter of 2019 versus the third quarter of 2018 is primarily due to reduced depreciation and development amortization in our Powder River Basin segment.

Accretion on asset retirement obligations. The decrease in accretion on asset retirement obligations in thethird quarter of 2019 versus the third quarter of 2018 is related to the significant reduction in our Powder River Basin asset retirement obligation liability at the end of2018 due to mine plan changes.

Amortization of sales contracts, net. The decrease in amortization of sales contracts, net in thethird quarter of 2019 versus the third quarter of 2018 is primarily related to the value of certain Powder River Basin supply contracts being fully amortized at the end of 2018.

Change in fair value of coal derivatives and coal trading activities, net. The decreased cost in thethird quarter of 2019 versus the prior year period is primarily related to reduced mark-to-market losses on coal derivatives that we have entered to hedge our price risk for anticipated international thermal coal shipments. As international thermal markets were largely flat during the current quarter, versus rising in the prior year quarter, the market value decrease of these positions was significantly less in the current year quarter.

Selling, general and administrative expenses. Selling, general and administrative expenses in thethird quarter of 2019 increased versus the third quarter of 2018 due primarily to increased compensation costs of approximately $0.6 million and increased contractor services of approximately $0.4 million.

Costs related to proposed joint venture with Peabody Energy. On June 18, 2019, we entered into a definitive implementation agreement (the “Implementation Agreement”) with Peabody, to establish a joint venture that will combine the companies’ Powder River Basin and Colorado mining operations. All costs associated with execution of the Implementation Agreement are reflected herein. For further information on our proposed joint venture with Peabody Energy see Note 3, “Joint Venture with Peabody Energy” to the Condensed Consolidated Financial Statements.

Preference Rights Lease Application (PRLA) settlement income. Our PRLA settlement income relates to a settlement with the United States Department of Interior over a long-standing dispute on the valuation and disposition of a PRLA that Arch controlled in northwestern New Mexico. For further information on our PRLA settlement income see Note 5, “Preference Rights Lease Application Settlement Income” to the Condensed Consolidated Financial Statements.

Other operating income, net. The decreased benefit from other operating income, net in the third quarter of 2019 versus the third quarter of 2018 consists primarily of reduced income from equity investments of approximately $1.0 million, the unfavorable impact of mark to market movement on heating oil positions of approximately $2.4 million, reduced royalty income of approximately $1.1 million, and reduced settlements and gains on dispositions of certain assets of approximately $1.7 million, partially offset by the favorable impact of coal derivative settlements of approximately $5.8 million.

Nonoperating (expenses) income. The following table summarizes our nonoperating expense during thethree months ended September 30, 2019 and 2018:

	Three Months Ended September 30,		
	2019	2018	Increase (Decrease) in Net Income
	(In thousands)		
Non-service related pension and postretirement benefit (costs) credits	$ 975	$ (971)	$ 1,946
Reorganization items, net	—	(560)	560
Total nonoperating (expenses) income	$ 975	$ (1,531)	$ 2,506

The nonoperating benefit in non-service related pension and postretirement benefit (costs) credits in thethird quarter of 2019 is primarily due to post retirement benefit gain amortization. In the third quarter of 2018 nonoperating (expenses) income include non-service related pension and postretirement benefit costs and from Chapter 11 reorganization costs.

Provision for (Benefit from) income taxes. The following table summarizes our Provision for (Benefit from) income taxes during the three months ended September 30, 2019 and 2018:

	Three Months Ended September 30,		
	2019	2018	Increase (Decrease) in Net Income
	(In thousands)		
Provision for (Benefit from) income taxes	$ 347	$ (45,215)	$ (45,562)

See Note 12, “Income Taxes,” to the Condensed Consolidated Financial Statements for a reconciliation of the statutory federal income tax provision (benefit) at the statutory rate to the actual provision for (benefit from) income taxes.

Nine Months Ended September 30, 2019 and 2018

Revenues. Our revenues include sales to customers of coal produced at our operations and coal purchased from third parties. Transportation costs are included in cost of coal sales and amounts billed by us to our customers for transportation are included in revenues.

Coal Sales. The following table summarizes information about our coal sales during thenine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,		
	2019	2018	(Decrease) / Increase
		(In thousands)	
Coal sales	$ 1,744,872	$ 1,800,824	$ (55,952)
Tons sold	67,958	72,679	(4,721)

On a consolidated basis, coal sales in the nine months ended September 30, 2019 were approximately $56.0 million or 3.1% less than in thenine months ended September 30, 2018, while tons sold decreased approximately 4.7 million tons or 6.5%. Coal sales from Metallurgical operations increased approximately $35.3 million on increased pricing and shipment volume. Powder River Basin coal sales decreased approximately $44.4 million primarily due to decreased volume, and Other Thermal coal sales decreased approximately $43.8 million due primarily to decreased volume. See discussion in “Operational Performance” for further information about segment results.

Costs, expenses and other. The following table summarizes costs, expenses and other components of operating income during thenine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,		
	2019	2018	Increase (Decrease) in Net Income
		(In thousands)	
Cost of sales (exclusive of items shown separately below)	$ 1,380,563	$ 1,411,197	$ 30,634
Depreciation, depletion and amortization	82,199	92,027	9,828
Accretion on asset retirement obligations	15,411	20,977	5,566
Amortization of sales contracts, net	(77)	9,540	9,617
Change in fair value of coal derivatives and coal trading activities, net	(19,851)	22,142	41,993
Selling, general and administrative expenses	73,864	73,613	(251)
Costs related to proposed joint venture with Peabody Energy	6,772	—	(6,772)
Loss on sale of Lone Mountain Processing, LLC	4,304	—	(4,304)
Preference Rights Lease Application settlement income	(39,000)	—	39,000
Other operating income, net	(9,143)	(21,320)	(12,177)
Total costs, expenses and other	$ 1,495,042	$ 1,608,176	$ 113,134

Cost of sales. Our cost of sales for thenine months ended September 30, 2019 decreased approximately $30.6 million or 2.2% versus thenine months ended September 30, 2018. The decrease consists primarily of reductions of approximately $34.5 million in operating taxes and royalties, $18.9 million in purchased coal costs, and $8.6 million due to a relatively larger build in coal inventories. These cost decreases were partially offset by increases of approximately $17.0 million in labor related costs, $8.4 million in repairs and supplies costs, and $7.5 million in other miscellaneous costs primarily outside services and subsidence mitigation costs. See discussion in “Operational Performance” for further information about segment results.

Depreciation, depletion, and amortization. The decrease in depreciation, depletion, and amortization in thenine months ended September 30, 2019 versus the nine months ended September 30, 2018 is primarily due to reduced depreciation and development amortization in our Powder River Basin segment.

Accretion on asset retirement obligations. The decrease in accretion on asset retirement obligations in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 is related to the significant reduction in our Powder River Basin asset retirement obligation liability at the end of 2018 due to mine plan changes.

Amortization of sales contracts, net. The decrease in amortization of sales contracts, net in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 is primarily related to the value of certain Powder River Basin supply contracts being fully amortized at the end of 2018.

Change in fair value of coal derivatives and coal trading activities, net. The increased benefit in the nine months ended September 30, 2019 versus the prior year period is primarily related to mark-to-market gains on coal derivatives that we have entered to hedge our price risk for anticipated international thermal coal shipments. As international thermal markets declined during the current nine month period, the market value of these positions increased.

Selling, general and administrative expenses. The increase in selling, general and administrative expenses in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 is primarily due to increased compensation costs of approximately $0.4 million, increased systems maintenance and licensing of approximately $0.7 million, and increased miscellaneous costs of approximately $0.2 million, partially offset by reduced contractor services costs of approximately $1.1 million.

Costs related to proposed joint venture with Peabody Energy. On June 18, 2019, we entered into a definitive implementation agreement (the “Implementation Agreement”) with Peabody, to establish a joint venture that will combine the companies’ Powder River Basin and Colorado mining operations. All costs associated with execution of the Implementation Agreement are reflected herein. For further information on our proposed joint venture with Peabody Energy see Note 3, “Joint Venture with Peabody Energy” to the Condensed Consolidated Financial Statements.

Loss on sale of Lone Mountain Processing, LLC. Our loss on sale of Lone Mountain Processing, LLC in the current period relates to recognition of certain contingent workers’ compensation liabilities, both occupational disease and traumatic, that may accrue to us as a result of the recent bankruptcy filing by Revelation Energy LLC. For further information regarding the loss on sale of Lone Mountain Processing, LLC see Note 4, “Loss on Sale of Lone Mountain Processing, LLC” to the Condensed Consolidated Financial Statements.

Preference Rights Lease Application (PRLA) settlement income. Our PRLA settlement income relates to a settlement with the United States Department of Interior over a long-standing dispute on the valuation and disposition of a PRLA Arch controlled in northwestern New Mexico. For further information on our PRLA settlement income see Note 5, “Preference Rights Lease Application Settlement Income” to the Condensed Consolidated Financial Statements.

Other operating income, net. The decreased benefit from other operating income, net in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 consists primarily of reduced income from equity investments of approximately $4.6 million, the unfavorable impact of mark to market movements on heating oil positions of approximately $6.8 million, and reduced royalty income of approximately $2.5 million, partially offset by the favorable impact of coal derivative settlements in the current period of approximately $3.1 million.

Nonoperating (expenses) income. The following table summarizes our nonoperating expense during the nine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,		
	2019	**2018**	**Increase (Decrease) in Net Income**
		(In thousands)	
Non-service related pension and postretirement benefit (costs) credits	$ (2,127)	$ (2,206)	$ 79
Net loss resulting from early retirement of debt and debt restructuring	—	(485)	485
Reorganization items, net	71	(1,601)	1,672
Total nonoperating (expenses) income	$ (2,056)	$ (4,292)	$ 2,236

Nonoperating (expenses) income decreased in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 due to costs associated with the repricing of our term loan and from Chapter 11 reorganization costs in the prior year period.

Provision for (Benefit from) income taxes. The following table summarizes our Provision for (Benefit from) income taxes during the nine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,		
	2019	2018	Increase (Decrease) in Net Income
	(In thousands)		
Provision for (Benefit from) income taxes	$ 508	$ (49,125)	$ (49,633)

See Note 12, "Income Taxes," to the Condensed Consolidated Financial Statements for a reconciliation of the statutory federal income tax provision (benefit) at the statutory rate to the actual provision for (benefit from) income taxes.

Operational Performance

Three and Nine Months Ended September 30, 2019 and 2018

Our mining operations are evaluated based on Adjusted EBITDA, per-ton cash operating costs (defined as including all mining costs except depreciation, depletion, amortization, accretion on asset retirements obligations, and pass-through transportation expenses), and on other non-financial measures, such as safety and environmental performance. Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization, the amortization of sales contracts, the accretion on asset retirement obligations and nonoperating expenses. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results by excluding transactions that are not indicative of our core operating performance. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. Furthermore, analogous measures are used by industry analysts and investors to evaluate the Company's operating performance. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies.

The following table shows results by operating segment for thethree and nine months ended September 30, 2019 and September 30, 2018.

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2019	2018	Variance	2019	2018	Variance
Powder River Basin						
Tons sold (in thousands)	22,156	21,486	670	56,445	60,021	(3,576)
Coal sales per ton sold	$ 12.02	$ 12.02	$ —	$ 12.09	$ 12.08	$ 0.01
Cash cost per ton sold	$ 9.77	$ 9.76	$ (0.01)	$ 10.60	$ 10.38	$ (0.22)
Cash margin per ton sold	$ 2.25	$ 2.26	$ (0.01)	$ 1.49	$ 1.70	$ (0.21)
Adjusted EBITDA (in thousands)	$ 50,153	$ 48,646	$ 1,507	$ 85,433	$ 102,639	$ (17,206)
Metallurgical						
Tons sold (in thousands)	2,084	1,895	189	5,769	5,658	111
Coal sales per ton sold	$ 98.89	$ 104.75	$ (5.86)	$ 110.47	$ 108.10	$ 2.37
Cash cost per ton sold	$ 64.89	$ 62.54	$ (2.35)	$ 64.70	$ 63.91	$ (0.79)
Cash margin per ton sold	$ 34.00	$ 42.21	$ (8.21)	$ 45.77	$ 44.19	$ 1.58
Adjusted EBITDA (in thousands)	$ 70,814	$ 81,250	$ (10,436)	$ 264,284	$ 251,649	$ 12,635
Other Thermal						
Tons sold (in thousands)	1,986	2,546	(560)	5,589	6,749	(1,160)
Coal sales per ton sold	$ 39.52	$ 36.96	$ 2.56	$ 39.09	$ 36.46	$ 2.63
Cash cost per ton sold	$ 31.16	$ 27.68	$ (3.48)	$ 33.24	$ 29.01	$ (4.23)
Cash margin per ton sold	$ 8.36	$ 9.28	$ (0.92)	$ 5.85	$ 7.45	$ (1.60)
Adjusted EBITDA (in thousands)	$ 16,659	$ 25,200	$ (8,541)	$ 33,699	$ 52,710	$ (19,011)

This table reflects numbers reported under a basis that differs from U.S. GAAP. See the "Reconciliation of Non-GAAP measures" below for explanation and reconciliation of these amounts to the nearest GAAP measures. Other companies may calculate these per ton amounts differently, and our calculation may not be comparable to other similarly titled measures.

Powder River Basin — Adjusted EBITDA for the three months ended September 30, 2019 increased slightly versus the three months ended September 30, 2018, due to increased volume versus the prior year quarter, while pricing and cash cost per ton sold were effectively flat compared to the prior year quarter. Adjusted EBITDA for the nine months ended September 30, 2019 declined versus the nine months ended September 30, 2018, due to decreased volume and increased cash cost per ton sold versus the prior year period. The volume decline was largely due to the impact of off-site flooding on rail performance in the first half of the current year. Pricing was effectively flat as the increase in the percentage of higher quality tons sold from scaling back operations at our lower quality Coal Creek mine offset the normal year end roll off and replacement of term contracts that had been executed during stronger thermal coal market environments that generally correlate with periods of higher natural gas pricing. Due to market weakness for lower quality Powder River Basin coal, we decided to reduce operations at our Coal Creek mine rather than pursue uneconomic business. We continue to believe this reduction will last at least through the current year, and the resulting change in the mix of tons sold will put upward pressure on both coal sales per ton sold and cash cost per ton sold. Cash cost per ton sold increased due to the volume decrease and lower percentage of Coal Creek volume, but the increase in cash cost per ton sold was mitigated somewhat by the reversion of the Federal Black Lung Excise Tax rate to the pre-1986 rates. The current period Federal Black Lung Excise Tax rate for surface mines is $0.25 per ton or 2% of gross selling price on all domestic sales, versus the prior year period rate of $0.55 per ton sold or 4.4% of gross selling price.

Metallurgical — Adjusted EBITDA for the three months ended September 30, 2019 decreased from the three months ended September 30, 2018 due to the decline in coking coal pricing discussed in the "Overview" and increased cash cost per ton sold, partially offset by an increase in the volume of tons sold. The cost increase was driven by inflationary pressure on labor and materials costs, and reduced productivity at our Mountain Laurel complex related to difficult conditions on the final longwall panel as the mine begins to transition to continuous miner operations. Increased productivity at the Leer Mine muted the cost increase, and drove the increase in tons sold. Adjusted EBITDA for the nine months ended September 30, 2019, increased from the nine months ended September 30, 2018 due to strong pricing in the first half of the current year and increased volume of tons sold, partially offset by increased cash cost per ton sold. Cash cost per ton sold increased slightly in the current year period primarily due to inflationary pressure on labor and materials cost. Tons sold volume increased slightly, in line with increased production volume.

Our Metallurgical segment sold 1.9 million tons of coking coal and 0.2 million tons of associated thermal coal in the three months ended September 30, 2019, compared to 1.7 million tons of coking coal and 0.2 million tons of associated thermal coal in the three months ended September 30, 2018. For the nine months ended September 30, 2019, we sold 5.0 million tons of coking coal and 0.8 million tons of associated thermal coal compared to 4.8 million tons of coking coal and 0.9 million tons of associated thermal coal in the nine months ended September 30, 2018. Longwall operations accounted for approximately 78% of our shipment volume in the three months ended September 30, 2019 compared to approximately 73% of our shipment volume in the three months ended September 30, 2018, and approximately 72% of our shipment volume in the nine months ended September 30, 2019 compared to approximately 70% of our shipment volume in the nine months ended September 30, 2018.

Other Thermal — Adjusted EBITDA for the three and nine months ended September 30, 2019 decreased versus the three and nine months ended September 30, 2018 due to reduced sales volume and increased cash cost of tons sold. Volume decreased in the first nine months of the current year due to continued softness in both domestic and international thermal coal markets, a planned first quarter reduction at our West Elk operation to accommodate customer delivery schedules and our longwall development requirements, and a reduction at our Coal-Mac operation as higher mining ratios led to a decrease in tons produced. The planned decline in West Elk tons sold volume in the first quarter, and further market driven declines in the current quarter, decreased the percentage of tons sold from the lower priced and lower cost operation. The change in volume mix contributed to increases in both pricing and cash cost per ton sold.

Reconciliation of Non-GAAP measures

Segment coal sales per ton sold

Non-GAAP Segment coal sales per ton sold is calculated as segment coal sales revenues divided by segment tons sold. Segment coal sales revenues are adjusted for transportation costs, and may be adjusted for other items that, due to generally accepted accounting principles, are classified in “other income” on the statement of operations, but relate to price protection on the sale of coal. Segment coal sales per ton sold is not a measure of financial performance in accordance with generally accepted accounting principles. We believe segment coal sales per ton sold provides useful information to investors as it better reflects our revenue for the quality of coal sold and our operating results by including all income from coal sales. The adjustments made to arrive at these measures are significant in understanding and assessing our financial condition. Therefore, segment coal sales revenues should not be considered in isolation, nor as an alternative to coal sales revenues under generally accepted accounting principles.

Three Months Ended September 30, 2019	**Powder River Basin**	**Metallurgical**	**Other Thermal**	**Idle and Other**	**Consolidated**
(In thousands)					
GAAP Revenues in the consolidated statements of operations	$ 269,968	$ 254,493	$ 94,052	$ 954	$ 619,467
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue					
Coal risk management derivative settlements classified in "other income"	—	(506)	(4,533)	—	(5,039)
Coal sales revenues from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	954	954
Transportation costs	3,581	48,925	20,080	—	72,586
Non-GAAP Segment coal sales revenues	$ 266,387	$ 206,074	$ 78,505	$ —	$ 550,966
Tons sold	22,156	2,084	1,986		
Coal sales per ton sold	$ 12.02	$ 98.89	$ 39.52		

Three Months Ended September 30, 2018	**Powder River Basin**	**Metallurgical**	**Other Thermal**	**Idle and Other**	**Consolidated**
(In thousands)					
GAAP Revenues in the consolidated statements of operations	$ 261,927	$ 236,328	$ 130,663	$ 4,262	$ 633,180
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue					
Coal risk management derivative settlements classified in "other income"	—	—	2,522	—	2,522
Coal sales revenues from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	4,262	4,262
Transportation costs	3,592	37,857	34,031	—	75,480
Non-GAAP Segment coal sales revenues	$ 258,335	$ 198,471	$ 94,110	$ —	$ 550,916
Tons sold	21,486	1,895	2,546		
Coal sales per ton sold	$ 12.02	$ 104.75	$ 36.96		

Nine Months Ended September 30, 2019	Powder River Basin	Metallurgical	Other Thermal	Idle and Other	Consolidated
(In thousands)					
GAAP Revenues in the consolidated statements of operations	$ 692,845	$ 769,000	$ 278,236	$ 4,791	$ 1,744,872
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue					
Coal risk management derivative settlements classified in "other income"	—	(506)	(3,524)	—	(4,030)
Coal sales revenues from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	4,791	4,791
Transportation costs	10,511	132,187	63,302	—	206,000
Non-GAAP Segment coal sales revenues	$ 682,334	$ 637,319	$ 218,458	$ —	$ 1,538,111
Tons sold	56,445	5,769	5,589		
Coal sales per ton sold	$ 12.09	$ 110.47	$ 39.09		

Nine Months Ended September 30, 2018	Powder River Basin	Metallurgical	Other Thermal	Idle and Other	Consolidated
(In thousands)					
GAAP Revenues in the consolidated statements of operations	$ 737,233	$ 733,707	$ 321,997	$ 7,887	$ 1,800,824
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue					
Coal risk management derivative settlements classified in "other income"	—	—	5,202	—	5,202
Coal sales revenues from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	7,887	7,887
Transportation costs	12,246	122,049	70,706	—	205,001
Non-GAAP Segment coal sales revenues	$ 724,987	$ 611,658	$ 246,089	$ —	$ 1,582,734
Tons sold	60,021	5,658	6,749		
Coal sales per ton sold	$ 12.08	$ 108.10	$ 36.46		

Segment cash cost per ton sold

Non-GAAP Segment cash cost per ton sold is calculated as segment cash cost of coal sales divided by segment tons sold. Segment cash cost of coal sales is adjusted for transportation costs, and may be adjusted for other items that, due to generally accepted accounting principles, are classified in “other income” on the statement of operations, but relate directly to the costs incurred to produce coal. Segment cash cost per ton sold is not a measure of financial performance in accordance with generally accepted accounting principles. We believe segment cash cost per ton sold better reflects our controllable costs and our operating results by including all costs incurred to produce coal. The adjustments made to arrive at these measures are significant in understanding and assessing our financial condition. Therefore, segment cash cost of coal sales should not be considered in isolation, nor as an alternative to cost of sales under generally accepted accounting principles.

Three Months Ended September 30, 2019	**Powder River Basin**	**Metallurgical**	**Other Thermal**	**Idle and Other**	**Consolidated**
(In thousands)					
GAAP Cost of sales in the consolidated statements of operations	$ 218,966	$ 184,149	$ 81,976	$ 5,913	$ 491,004
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales					
Diesel fuel risk management derivative settlements classified in "other income"	(1,057)	—	—	—	(1,057)
Transportation costs	3,581	48,925	20,080	—	72,586
Cost of coal sales from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	3,871	3,871
Other (operating overhead, certain actuarial, etc.)	—	—	—	2,042	2,042
Non-GAAP Segment cash cost of coal sales	216,442	135,224	61,896	—	413,562
Tons sold	22,156	2,084	1,986		
Cash Cost Per Ton Sold	$ 9.77	$ 64.89	$ 31.16		

Three Months Ended September 30, 2018	**Powder River Basin**	**Metallurgical**	**Other Thermal**	**Idle and Other**	**Consolidated**
(In thousands)					
GAAP Cost of sales in the consolidated statements of operations	$ 214,921	$ 156,353	$ 104,516	$ 6,239	$ 482,029
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales					
Diesel fuel risk management derivative settlements classified in "other income"	1,528	—	—	—	1,528
Transportation costs	3,592	37,857	34,031	—	75,480
Cost of coal sales from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	3,174	3,174
Other (operating overhead, certain actuarial, etc.)	—	—	—	3,065	3,065
Non-GAAP Segment cash cost of coal sales	$ 209,801	$ 118,496	$ 70,485	$ —	$ 398,782
Tons sold	21,486	1,895	2,546		
Cash Cost Per Ton Sold	$ 9.76	$ 62.54	$ 27.68		

Nine Months Ended September 30, 2019	Powder River Basin	Metallurgical	Other Thermal	Idle and Other	Consolidated
(In thousands)					
GAAP Cost of sales in the consolidated statements of operations	$ 606,561	$ 505,479	$ 249,091	$ 19,432	$ 1,380,563
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales					
Diesel fuel risk management derivative settlements classified in "other income"	(2,307)	—	—	—	(2,307)
Transportation costs	10,511	132,187	63,302	—	206,000
Cost of coal sales from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	12,690	12,690
Other (operating overhead, certain actuarial, etc.)	—	—	—	6,742	6,742
Non-GAAP Segment cash cost of coal sales	$ 598,357	$ 373,292	$ 185,789	$ —	$ 1,157,438
Tons sold	56,445	5,769	5,589		
Cash Cost Per Ton Sold	$ 10.60	$ 64.70	$ 33.24		

Nine Months Ended September 30, 2018	Powder River Basin	Metallurgical	Other Thermal	Idle and Other	Consolidated
(In thousands)					
GAAP Cost of sales in the consolidated statements of operations	$ 638,980	$ 483,662	$ 266,504	$ 22,051	$ 1,411,197
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales					
Diesel fuel risk management derivative settlements classified in "other income"	3,935	—	—	—	3,935
Transportation costs	12,246	122,049	70,706	—	205,001
Cost of coal sales from idled or otherwise disposed operations and pass through agreements not included in segments	—	—	—	14,139	14,139
Other (operating overhead, certain actuarial, etc.)	—	—	—	7,912	7,912
Non-GAAP Segment cash cost of coal sales	$ 622,799	$ 361,613	$ 195,798	$ —	$ 1,180,210
Tons sold	60,021	5,658	6,749		
Cash Cost Per Ton Sold	$ 10.38	$ 63.91	$ 29.01		

Reconciliation of Segment Adjusted EBITDA to Net Income

The discussion in "Results of Operations" above includes references to our Adjusted EBITDA for each of our reportable segments. Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization, the amortization of sales contracts, the accretion on asset retirement obligations and nonoperating expenses. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results by excluding transactions that are not indicative of our core operating performance. We use Adjusted EBITDA to measure the operating performance of our segments and allocate resources to our segments. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDA.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
Net income	$ 106,769	$ 123,192	$ 242,350	$ 226,483
Provision for (benefit from) income taxes	347	(45,215)	508	(49,125)
Interest expense, net	340	3,378	4,916	10,998
Depreciation, depletion and amortization	30,402	31,775	82,199	92,027
Accretion on asset retirement obligations	5,137	6,992	15,411	20,977
Amortization of sales contracts, net	(153)	3,241	(77)	9,540
Loss on sale of Lone Mountain Processing, LLC	—	—	4,304	—
Preference Rights Lease Application (PRLA) settlement income	(39,000)	—	(39,000)	—
Net loss resulting from early retirement of debt and debt restructuring	—	—	—	485
Non-service related pension and postretirement benefit costs	(975)	971	2,127	2,206
Reorganization items, net	—	560	(71)	1,601
Costs associated with proposed joint venture with Peabody Energy	3,754	—	6,772	—
Adjusted EBITDA	106,621	124,894	319,439	315,192
EBITDA from idled or otherwise disposed operations	2,584	(1,391)	3,151	4,020
Selling, general and administrative expenses	24,566	22,909	73,864	73,613
Other	3,855	8,684	(13,038)	14,173
Segment Adjusted EBITDA from coal operations	$ 137,626	$ 155,096	$ 383,416	$ 406,998

Other includes income from our equity investments, certain changes in fair value of heating oil and diesel fuel derivatives we use to manage our exposure to diesel fuel pricing, certain changes in the fair value of coal derivatives and coal trading activities, EBITDA provided by our land company, and certain miscellaneous revenue.

Liquidity and Capital Resources

Our primary sources of liquidity are proceeds from coal sales to customers and certain financing arrangements. Excluding significant investing activity, we intend to satisfy our working capital requirements and fund capital expenditures and debt-service obligations with cash generated from operations and cash on hand. Our focus is prudently managing costs, including capital expenditures, maintaining a strong balance sheet, and ensuring adequate liquidity.

On April 27, 2017, our Board of Directors authorized a share repurchase program for up to $300 million of our common stock, and has subsequently authorized additional amounts bringing the total authorization to $1.05 billion. During the quarter ended September 30, 2019, we repurchased 1,169,597 shares of our stock for approximately $91.4 million bringing total repurchases to 9,954,999 shares for approximately $816.9 million. The timing of any future share purchases and the ultimate number of shares to be purchased will depend on a number of factors, including business and market conditions, our future financial performance, and other capital priorities. The shares will be acquired in the open market or through private transactions in accordance with Securities and Exchange Commission requirements. Our share repurchase program may be amended, suspended or discontinued at any time and does not commit us to repurchase shares of our common stock.

On April 27, 2017, our Board of Directors authorized a quarterly common stock cash dividend of $0.35 per share, which we increased to $0.40 per share on February 13, 2018. On February 14, 2019, we announced a further increase in the quarterly dividend to $0.45 per share. We paid a dividend of approximately $7.0 million on September 13, 2019 to stockholders of record at the close of business on August 30, 2019, bringing total dividends paid in 2019 to approximately $22.3 million, and total dividends paid since initiation to approximately $78.0 million.

Given the volatile nature of coal markets, we believe it is important to take a prudent approach to managing our balance sheet and liquidity. We plan to implement our dividend policy and share repurchase program in a manner that will target liquidity levels between $400 million and $500 million, a significant portion of which will be cash. In the future, we will continue to evaluate our capital allocation initiatives in light of the current state of, and our outlook, for coal markets; the amount of our planned production that has been committed and priced; the capital needs of the business; and other strategic opportunities.

On March 7, 2017, we entered into a senior secured term loan credit agreement (the “Credit Agreement”) in an aggregate principal amount of $300 million (the “Term Loan Debt Facility”) with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the other financial institutions from time to time party thereto. The Term Loan Debt Facility was issued at 99.50% of the face amount and will mature on March 7, 2024. The term loans provided under the Term Loan Debt Facility (the “Term Loans”) are subject to quarterly principal amortization payments in an amount equal to $750,000. For further information regarding the Term Loan Debt Facility see Note 11, “Debt and Financing Arrangements” to the Condensed Consolidated Financial Statements.

During 2018, we entered into the Second Amendment (the “Second Amendment”) to the Term Loan Debt Facility. The Second Amendment reduced the interest rate on the Term Loan Debt Facility to, at our option, either (i) LIBOR plus an applicable margin of 2.75%, subject to a 1.00% LIBOR floor, or (ii) a base rate plus an applicable margin of 1.75%. For further information regarding this amendment see Note 11, “Debt and Financing Arrangements” to the Condensed Consolidated Financial Statements.

We have entered into a series of interest rate swaps to fix a portion of the LIBOR interest payments due under the term loan. As interest payments are made on the term loan, amounts in accumulated other comprehensive income will be reclassified into earnings through interest expense to reflect a net interest on the term loan equal to the effective yield of the fixed rate of the swap plus 2.75% which is the spread on the LIBOR term loan as amended. For further information regarding the interest rate swaps, including a table detailing fixed rates and amounts, see Note 11, “Debt and Financing Arrangements” to the Condensed Consolidated Financial Statements.

As of September 30, 2019, letters of credit totaling $15.5 million were outstanding under our Extended Securitization Facility with $92.6 million available for borrowings. Additionally, as of September 30, 2019, we had letters of credit totaling $35.9 million outstanding under our Inventory Facility with $14.1 million available for borrowings. For further information regarding the Extended Securitization Facility and the Inventory Facility see Note 11, “Debt and Financing Arrangements” to the Condensed Consolidated Financial Statements.

On September 30, 2019, we had total liquidity of approximately $466 million including $351 million in cash and equivalents, and short term investments in debt securities, with the remainder provided by availability under our credit facilities, and funds withdrawable from brokerage accounts.

The following is a summary of cash provided by or used in each of the indicated types of activities during the nine months ended September 30, 2019 and 2018:

	Nine Months Ended September 30,	
	2019	2018
	(In thousands)	
Cash provided by (used in):		
Operating activities	$ 334,053	$ 266,115
Investing activities	(154,002)	(64,266)
Financing activities	(269,560)	(229,772)

Cash Flow

Cash provided by operating activities in the nine months ended September 30, 2019 increased from the nine months ended September 30, 2018 mainly due to improved results from operations, an approximately $17 million favorable year over year change in working capital, particularly in payables, a net positive impact versus the prior year period of approximately $23 million from our coal derivative positions and their associated margin accounts, and receipt of approximately $44 million in federal income tax refunds in the current year period, partially offset by receipt of an approximately $24 million income tax refund in the prior period.

Cash used in investing activities increased in the nine months ended September 30, 2019 versus the nine months ended September 30, 2018 primarily due to increased capital expenditures, including approximately $63 million on our Leer South mine development.

Cash used in financing activities in the nine months ended September 30, 2019 increased from the nine months ended September 30, 2018 primarily due to increased purchases of treasury stock of approximately $41 million when compared to the prior year period.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We manage our commodity price risk for our non-trading, thermal coal sales through the use of long-term coal supply agreements, and to a limited extent, through the use of derivative instruments. Sales commitments in the metallurgical coal market are typically not long term in nature, and we are therefore subject to fluctuations in market pricing.

Our sales commitments for 2019 and 2020 were as follows as of October 22, 2019:

	2019			2020		
	Tons	$ per ton		Tons	$ per ton	
Metallurgical	(in millions)			(in millions)		
Committed, North America Priced Coking	1.5	$	121.87	1.5	$	109.89
Committed, North America Unpriced Coking	0.2			—		
Committed, Seaborne Priced Coking	3.9		121.92	—		—
Committed, Seaborne Unpriced Coking	1.1			1.6		
Committed, Priced Thermal	1.0		32.15	—		—
Committed, Unpriced Thermal	—			—		
Powder River Basin						
Committed, Priced	75.3	$	12.06	43.7	$	12.27
Committed, Unpriced	0.6			1.5		
Other Thermal						
Committed, Priced	7.5	$	38.42	3.7	$	40.36
Committed, Unpriced	0.3			—		

We are also exposed to commodity price risk in our coal trading activities, which represents the potential future loss that could be caused by an adverse change in the market value of coal. Our coal trading portfolio included swap and put and call option contracts at September 30, 2019. The estimated future realization of the value of the trading portfolio is $0.2 million of losses during the remainder of 2019 and $0.6 million of losses during 2020.

We monitor and manage market price risk for our trading activities with a variety of tools, including Value at Risk (VaR), position limits, management alerts for mark to market monitoring and loss limits, scenario analysis, sensitivity analysis and review of daily changes in market dynamics. Management believes that presenting high, low, end of year and average VaR is the best available method to give investors insight into the level of commodity risk of our trading positions. Illiquid positions, such as long-dated trades that are not quoted by brokers or exchanges, are not included in VaR.

VaR is a statistical one-tail confidence interval and down side risk estimate that relies on recent history to estimate how the value of the portfolio of positions will change if markets behave in the same way as they have in the recent past. The level of confidence is 95%. The time across which these possible value changes are being estimated is through the end of the next business day. A closed-form delta-neutral method used throughout the finance and energy sectors is employed to calculate this VaR. VaR is back tested to verify its usefulness.

On average, portfolio value should not fall more than VaR on 95 out of 100 business days. Conversely, portfolio value declines of more than VaR should be expected, on average, 5 out of 100 business days. When more value than VaR is lost due to market price changes, VaR is not representative of how much value beyond VaR will be lost.

While presenting VaR will provide a similar framework for discussing risk across companies, VaR estimates from two independent sources are rarely calculated in the same way. Without a thorough understanding of how each VaR model was calculated, it would be difficult to compare two different VaR calculations from different sources.

During the nine months ended September 30, 2019, VaR for our coal trading positions that are recorded at fair value through earnings ranged from under $0.1 million to $0.2 million. The linear mean of each daily VaR was $0.1 million. The final VaR at September 30, 2019 was near $0.0 million.

We are exposed to fluctuations in the fair value of coal derivatives that we enter into to manage the price risk related to future coal sales, but for which we do not elect hedge accounting. Gains or losses on these derivative instruments would be largely offset in the pricing of the physical coal sale. During the nine months ended September 30, 2019, VaR for our risk management positions that are recorded at fair value through earnings ranged from $0.7 million to $1.9 million. The linear mean of each daily VaR was $1.2 million. The final VaR at September 30, 2019 was $0.8 million.

We are exposed to price risk with respect to diesel fuel purchased for use in our operations. We anticipate purchasing approximately 40 to 47 million gallons of diesel fuel for use in our operations annually. To protect our cash flows from increases in the price of diesel fuel for our operations, we use forward physical diesel purchase contracts, purchased heating oil call options and NYMEX gulf coast diesel swaps and options. At September 30, 2019, we had protected the price on the majority of our expected diesel fuel purchases for the remainder of 2019 with approximately 4 million gallons of heating oil call options with an average strike price of $2.30 per gallon and 6 million gallons of NYMEX gulf coast diesel swaps at an average price of approximately $1.92 per gallon. Additionally, we have protected approximately 34% of our expected 2020 purchases using gulf coast diesel call options with an average strike price of $2.24 per gallon. At September 30, 2019, we had outstanding heating oil call options and NYMEX gulf coast swaps and options of approximately 26 million gallons for the purpose of managing the price risk associated with future diesel purchases. These positions are not designated as hedges for accounting purposes, and therefore, changes in the fair value are recorded immediately to earnings.

Item 4. Controls and Procedures.

We performed an evaluation under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2019. Based on that evaluation, our management, including our chief executive officer and chief financial officer, concluded that the disclosure controls and procedures were effective as of such date. There were no changes in our internal control over financial reporting during the fiscal quarter to which this report relates that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II
OTHER INFORMATION

Item 1. Legal Proceedings

We are involved in various claims and legal actions arising in the ordinary course of business, including employee injury claims. After conferring with counsel, it is the opinion of management that the ultimate resolution of these claims, to the extent not previously provided for, will not have a material adverse effect on our consolidated financial condition, results of operations or liquidity.

Item 1A. Risk Factors

The joint venture with Peabody may not be completed in a timely manner, or at all.

There can be no assurance that the joint venture with Peabody will be completed in a timely manner, or at all. Formation of the joint venture is subject to customary closing conditions, including the termination or expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, the receipt of certain other required regulatory approvals and the absence of injunctions or other legal restraints preventing the formation of the joint venture. It is not certain that these closing conditions will be met or waived, that the necessary approvals will be obtained, or that we will be able to successfully enter into the joint venture.

We face risks and uncertainties due both to the pendency of the joint venture transaction as well as the potential failure to consummate the joint venture in a timely manner, or at all, including:

- we may not realize any or all of the potential benefits of the joint venture, including expected synergies;
- we will remain liable for significant transaction costs, including legal, financial advisory, accounting, and other costs relating to the joint venture, even if it is not consummated;
- if the Implementation Agreement is terminated by us before we complete the joint venture, under certain circumstances, we may be required to pay a termination fee to Peabody of up to $40.0 million;
- the pending joint venture transaction could have an adverse impact on our relationships with employees, customers and suppliers; and
- the attention of our management and employees may be diverted from day-to-day operations.

The occurrence of any of these events individually or in combination could have a material adverse effect on our business, financial condition or results of operations.

There are risks associated with the conduct of joint ventures or joint operations.

To the extent we hold or acquire interests in any joint ventures or joint operations or enter into any joint ventures or joint operations in the future, including the pending joint venture with Peabody, the existence or occurrence of one or more of the following circumstances and events could have a material adverse impact on our profitability or the viability of our interests held through joint ventures, which could have a material adverse impact on our business, financial condition or results of operations:

- inconsistent economic, political or business interests or goals between partners or disagreements with partners on strategy for the most efficient development or operation of mines;
- inability to control certain strategic decisions made in respect of properties;
- ability of partners to block actions that we believe to be in our or the joint venture's best interests;
- inability of partners to meet their financial and other obligations to the joint venture, joint operation or third parties; and
- litigation between partners regarding management, funding or other decisions related to the joint venture or joint operation.

To the extent that we are not the operator of a joint venture or joint operation properties, the success of such operations will be beyond our control. In many cases we will be bound by the decisions made by the operator in the operation of such property, and will rely on the operator to manage the property and to provide accurate information related to such property. We can provide no assurance that all decisions of operators of properties we do not control will achieve the expected results.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

On July 26, 2018, the board of directors authorized an incremental $250 million increase to the share repurchase program bringing the total authorization to $750 million. On April 17, 2019, the board of directors authorized an additional $300 million to the share repurchase program, bringing the total authorization since the program's launch to $1.05 billion. The timing of any future share purchases, and the ultimate number of shares to be purchased, will depend on a number of factors, including business and market conditions, our future financial performance, and other capital priorities. The shares will be acquired in the open market or through private transactions in accordance with Securities and Exchange Commission requirements. The share repurchase program has no termination date, but may be amended, suspended or discontinued at any time and does not commit us to repurchase shares of our common stock. The actual number and value of the shares to be purchased will depend on the performance of our stock price and other market conditions.

The table below represents all share repurchases for thethree months ended September 30, 2019:

Date	Total Number Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan (in thousands) [(1)]
July 1 through July 31, 2019	99,321	$ 90.61	99,321	$ 315,475
August 1 through August 31, 2019	750,042	$ 76.47	750,042	$ 258,116
September 1 through September 30, 2019	320,234	$ 78.06	320,234	$ 233,117
Total	1,169,597	$ 78.11	1,169,597	

As of September 30, 2019, we had repurchased 9,954,999 shares at an average share price of $82.06 per share for an aggregate purchase price of approximately $817 million since inception of the stock repurchase program, and the remaining authorized amount for stock repurchases under this program is approximately $233 million.

Item 4. Mine Safety Disclosures.

The statement concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this Quarterly Report on Form 10-Q for the period ended September 30, 2019.

Item 6. Exhibits.

2.1	Debtors' Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code (incorporated by reference to Exhibit 2.1 of Arch Coal's Current Report on Form 8-K filed on September 15, 2016).
2.2	Order Confirming Debtors' Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code on September 13, 2016 (incorporated by reference to Exhibit 2.2 of Arch Coal's Current Report on Form 8-K filed on September 15, 2016).
2.3	Implementation Agreement between Peabody Energy Corporation and Arch Coal, Inc. dated June 18, 2019 (incorporated by reference to Exhibit 2.1 of Arch Coal's Current Report on Form 8-K/A filed on June 19, 2019).
3.1	Amended and Restated Certificate of Incorporation of Arch Coal, Inc. (incorporated by reference to Exhibit 3.1 of Arch Coal's registration statement on Form 8-A filed on October 4, 2016).
3.2	Bylaws of Arch Coal, Inc. (incorporated by reference to Exhibit 3.2 of Arch Coal's registration statement on Form 8-A filed on October 4, 2016).
4.1	Form of specimen Class A Common Stock certificate (incorporated by reference to Exhibit 4.1 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
4.2	Form of specimen Class B Common Stock certificate (incorporated by reference to Exhibit 4.2 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
4.3	Form of specimen Series A Warrant certificate (incorporated by reference to Exhibit A of Exhibit 10.5 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.1	Credit Agreement, dated as of March 7, 2017, among Arch Coal, Inc. as borrower, the lenders from time to time party thereto and Credit Suisse AG, Cayman Islands Branch, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on March 8, 2017).
10.2	First Amendment to Credit Agreement, dated as of September 25, 2017, among Arch Coal, Inc. as borrower, the lenders from time to time party thereto and Credit Suisse AG, Cayman Islands Branch, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on September 25, 2017).
10.3	Second Amendment to Credit Agreement, dated as of April 3, 2018, among Arch Coal, Inc. as borrower, the lenders from time to time party thereto and Credit Suisse AG, Cayman Islands Branch, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on April 3, 2018).
10.4	Credit Agreement, dated as of April 27, 2017, among Arch Coal, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on May 2, 2017).
10.5	First Amendment to Credit Agreement dated November 19, 2018 by and among Arch Coal, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.5 to Arch Coal's Annual Report on Form 10-K for the year ended 2018).
10.6	Third Amended and Restated Receivables Purchase Agreement among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as initial servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.2 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.7	First Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of April 27, 2017, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.2 of Arch Coal's Current Report on Form 8-K filed on May 2, 2017).
10.8	Second Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of August 27, 2018, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.7 of Arch Coal's Quarterly Report on Form 10-Q for the period ended September 30, 2018).
10.9	Third Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of May 1, 2019, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.9 of Arch Coal's Quarterly Report on Form 10-Q for the period ended June 30, 2019).

10.10	Second Amended and Restated Purchase and Sale Agreement among Arch Coal, Inc. and certain subsidiaries of Arch Coal, Inc., as originators (incorporated by reference to Exhibit 10.3 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.11	First Amendment to the Second Amended and Restated Purchase and Sale Agreement, dated as of December 21, 2016, among Arch Coal, Inc. and certain subsidiaries of Arch Coal, Inc., as originators (incorporated by reference to Exhibit 10.7 of Arch Coal's Current Report on Form 8-K filed on October 31, 2017).
10.12	Second Amendment to the Second Amended and Restated Purchase and Sale Agreement, dated as of April 27, 2017, among the Arch Coal, Inc. and certain subsidiaries of the Arch Coal, Inc., as originators (incorporated by reference to Exhibit 10.3 of Arch Coal's Current Report on Form 8-K filed on May 2, 2017).
10.13	Second Amended and Restated Sale and Contribution Agreement between Arch Coal, Inc., as the transferor, and Arch Receivable Company, LLC (incorporated by reference to Exhibit 10.4 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.14	First Amendment to the Second Amended and Restated Sale and Contribution Agreement, dated as of April 27, 2017, between Arch Coal, Inc., as the transferor, and Arch Receivable Company, LLC (incorporated by reference to Exhibit 10.4 of Arch Coal's Current Report on Form 8-K filed on May 2, 2017).
10.15	Warrant Agreement, dated as of October 5, 2016, between Arch Coal, Inc. and American Stock Transfer & Trust Company, LLC, as Warrant Agent (incorporated by reference to Exhibit 10.5 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.16	Indemnification Agreement between Arch Coal and the directors and officers of Arch Coal and its subsidiaries (form) (incorporated by reference to Exhibit 10.6 of Arch Coal's Current Report on Form 8-K filed on October 11, 2016).
10.17	Registration Rights Agreement between Arch Coal and Monarch Alternative Capital LP and certain other affiliated funds (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on November 21, 2016)
10.18	Coal Lease Agreement dated as of March 31, 1992, among Allegheny Land Company, as lessee, and UAC and Phoenix Coal Corporation, as lessors, and related guarantee (incorporated herein by reference to the Current Report on Form 8-K filed by Ashland Coal, Inc. on April 6, 1992).
10.19	Federal Coal Lease dated as of January 24, 1996 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated herein by reference to Exhibit 10.20 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 1998).
10.20	Federal Coal Lease Readjustment dated as of November 1, 1967 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated herein by reference to Exhibit 10.21 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 1998).
10.21	Federal Coal Lease effective as of May 1, 1995 between the U.S. Department of the Interior and Mountain Coal Company (incorporated herein by reference to Exhibit 10.22 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 1998).
10.22	Federal Coal Lease dated as of January 1, 1999 between the Department of the Interior and Ark Land Company (incorporated herein by reference to Exhibit 10.23 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 1998).
10.23	Federal Coal Lease effective as of March 1, 2005 by and between the United States of America and Ark Land LT, Inc. covering the tract of land known as "Little Thunder" in Campbell County, Wyoming (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Arch Coal on February 10, 2005).
10.24	Modified Coal Lease (WYW71692) executed January 1, 2003 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as "North Rochelle" in Campbell County, Wyoming (incorporated by reference to Exhibit 10.24 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 2004).
10.25	Coal Lease (WYW127221) executed January 1, 1998 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as "North Roundup" in Campbell County, Wyoming (incorporated by reference to Exhibit 10.24 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 2004).
10.26*	Form of Employment Agreement for Executive Officers of Arch Coal, Inc. (incorporated herein by reference to Exhibit 10.4 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 2011).
10.27*	Arch Coal, Inc. Deferred Compensation Plan (incorporated herein by reference to Exhibit 10.26 to Arch Coal's Annual Report on Form 10-K for the year ended December 31, 2014).
10.28	Arch Coal, Inc. Outside Directors' Deferred Compensation Plan (incorporated herein by reference to Exhibit 10.4 of Arch Coal's Current Report on Form 8-K filed on December 11, 2008).
10.29*	Arch Coal, Inc. Supplemental Retirement Plan (as amended on December 5, 2008) (incorporated herein by reference to Exhibit 10.2 to Arch Coal's Current Report on Form 8-K filed on December 11, 2008).

10.30*	Arch Coal, Inc. 2016 Omnibus Incentive Plan (incorporated herein by reference to Exhibit 99.1 to Arch Coal's Registration Statement on Form S-8 filed on November 1, 2016).
10.31*	Form of Restricted Stock Unit Contract (Time-Based Vesting) (incorporated herein by reference to Exhibit 10.1 to Arch Coal's Current Report on Form 8-K filed on November 30, 2016).
10.32*	Form of Restricted Stock Unit Contract (Performance-Based Vesting) (incorporated herein by reference to Exhibit 10.2 to Arch Coal's Current Report on Form 8-k filed on November 30, 2016).
10.33	Stock Repurchase Agreement dated September 13, 2017, among Arch Coal, Inc. and Monarch Alternative Solutions Master Fund Ltd, Monarch Capital Master Partners III LP, MCP Holdings Master LP, Monarch Debt Recovery Master Fund Ltd and P Monarch Recovery Ltd. (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on September 19, 2017).
10.34	Stock Repurchase Agreement dated December 8, 2017, among Arch Coal, Inc. and Monarch Alternative Solutions Master Fund Ltd, Monarch Capital Master Partners III LP, MCP Holdings Master LP, and Monarch Debt Recovery Master Fund Ltd (incorporated by reference to Exhibit 10.1 of Arch Coal's Current Report on Form 8-K filed on December 11, 2017).
10.35*	Form of Cash Retention Award Agreement for the Chief Executive Officer, Chief Operating Officer and Chief Financial Officer of the Company (incorporated by reference to Exhibit 10.37 to Arch Coal's Annual Report on Form 10-K for the year ended 2018).
31.1	Rule 13a-14(a)/15d-14(a) Certification of John W. Eaves
31.2	Rule 13a-14(a)/15d-14(a) Certification of John T. Drexler.
32.1	Section 1350 Certification of John W. Eaves.
32.2	Section 1350 Certification of John T. Drexler.
95	Mine Safety Disclosure Exhibit.
101	Interactive Data File (Form 10-Q for the three and nine months ended September 30, 2019 filed in XBRL). The financial information contained in the XBRL-related documents is "unaudited" and "unreviewed."

* Denotes a management contract or compensatory plan or arrangement.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Arch Coal, Inc.

By: /s/ John T. Drexler

John T. Drexler

Senior Vice President and Chief Financial Officer (On behalf of the registrant and as Principal Financial Officer)

October 22, 2019

EXHIBIT 31.1

Certification

I, John W. Eaves, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arch Coal, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(e) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(f) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ John W. Eaves

John W. Eaves
Chief Executive Officer, Director
Date: October 22, 2019

EXHIBIT 31.2

Certification

I, John T. Drexler, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arch Coal, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

/s/ John T. Drexler

John T. Drexler
Senior Vice President and Chief Financial Officer
Date: October 22, 2019

EXHIBIT 32.1

Certification of Periodic Financial Reports

I, John W. Eaves, Chief Executive Officer, Director of Arch Coal, Inc., certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 (the "Periodic Report") which this statement accompanies fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Arch Coal, Inc.

/s/ John W. Eaves

John W. Eaves
Chief Executive Officer, Director
Date: October 22, 2019

EXHIBIT 32.2

Certification of Periodic Financial Reports

I, John T. Drexler, Senior Vice President and Chief Financial Officer of Arch Coal, Inc., certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019 (the "Periodic Report") which this statement accompanies fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Arch Coal, Inc.

/s/ John T. Drexler

John T. Drexler
Senior Vice President and Chief Financial Officer
Date: October 22, 2019

EXHIBIT 95

Mine Safety and Health Administration Safety Data

We believe that Arch Coal, Inc. ("Arch Coal") is one of the safest coal mining companies in the world. Safety is a core value at Arch Coal and at our subsidiary operations. We have in place a comprehensive safety program that includes extensive health & safety training for all employees, site inspections, emergency response preparedness, crisis communications training, incident investigation, regulatory compliance training and process auditing, as well as an open dialogue between all levels of employees. The goals of our processes are to eliminate exposure to hazards in the workplace, ensure that we comply with all mine safety regulations, and support regulatory and industry efforts to improve the health and safety of our employees along with the industry as a whole.

The operation of our mines is subject to regulation by the Federal Mine Safety and Health Administration (MSHA) under the Federal Mine Safety and Health Act of 1977 (Mine Act). MSHA inspects our mines on a regular basis and issues various citations, orders and violations when it believes a violation has occurred under the Mine Act. We present information below regarding certain mining safety and health violations, orders and citations, issued by MSHA and related assessments and legal actions and mine-related fatalities with respect to our coal mining operations. In evaluating the above information regarding mine safety and health, investors should take into account factors such as: (i) the number of citations and orders will vary depending on the size of a coal mine, (ii) the number of citations issued will vary from inspector to inspector and mine to mine, and (iii) citations and orders can be contested and appealed, and in that process are often reduced in severity and amount, and are sometimes dismissed or vacated.

The table below sets forth for the three months ended September 30, 2019 for each active MSHA identification number of Arch Coal and its subsidiaries, the total number of: (i) violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under section 104 of the Mine Act for which the operator received a citation from MSHA; (ii) orders issued under section 104(b) of the Mine Act; (iii) citations and orders for unwarrantable failure of the mine operator to comply with mandatory health or safety standards under section 104(d) of the Mine Act; (iv) flagrant violations under section 110(b)(2) of the Mine Act; (v) imminent danger orders issued under section 107(a) of the Mine Act; (vi) proposed assessments from MHSA (regardless of whether Arch Coal has challenged or appealed the assessment); (vii) mining-related fatalities; (viii) notices from MSHA of a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of coal or other mine health or safety hazards under section 104(e) of the Mine Act; (ix) notices from MSHA regarding the potential to have a pattern of violations as referenced in (viii) above; and (x) pending legal actions before the Federal Mine Safety and Health Review Commission (as of September 30, 2019) involving such coal or other mine, as well as the aggregate number of legal actions instituted and the aggregate number of legal actions resolved during the reporting period.

Mine or Operating Name / MSHA Identification Number	Section 104 S&S Citations (#)	Section 104(b) Orders (#)	Section 104(d) Citations and Orders (#)	Section 110(b)(2) Violations (#)	Section 107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed (in thousands) ($)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern of Violations Under Section 104(e) (Yes/No)	Received Notice of Potential to Have Pattern of Violations Under Section 104(e) (Yes/No)	Legal Actions Initiated During Period (#)	Legal Actions Resolved During Period (#)	Legal Actions Pending as of Last Day of Period(1) (#)
Active Operations												
Vindex Cabin Run / 18-00133	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Bismarck / 46-09369	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Jackson Mt. / 18-00170	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Wolf Den Run / 18-00790	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Energy / Vindex / 46-02151	—	—	—	—	—	—	—	No	No	—	—	—
Vidnex Energy / Carlos Surface / 18-00769	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Energy / Douglas Island / 18-00749	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Energy / Dobbin Ridge Prep Plant / 46-07837	—	—	—	—	—	—	—	No	No	—	—	—
Vindex Energy / Frostburg Blend Yard / 18-00709	—	—	—	—	—	—	—	No	No	—	—	—
Beckley Pocahontas Mine / 46-05252	13	—	—	—	—	66.0	—	No	No	7	15	7
Beckley Pocahontas Plant / 46-09216	—	—	—	—	—	0.1	—	No	No	—	—	—
Coal Mac Holden #22 Prep Plant / 46-05909	—	—	—	—	—	—	—	No	No	—	—	—
Coal Mac Ragland Loadout / 46-08563	—	—	—	—	—	—	—	No	No	—	—	—
Coal Mac Holden #22 Surface / 46-08984	—	—	—	—	—	4.2	—	No	No	—	—	—
Eastern Birch River Mine / 46-07945	—	—	—	—	—	—	—	No	No	—	—	—
Sentinel Mine / 46-04168	15	—	—	—	—	22.8	—	No	No	1	—	1
Sentinel Prep Plant / 46-08777	—	—	—	—	—	0.1	—	No	No	—	—	—
Mingo Logan Mountaineer II / 46-09029	21	—	—	—	-—	123.3	—	No	No	3	2	4

Mingo Logan Cardinal Prep Plant / 46-09046	—	—	—	—	—	1.4	—	No	No	—	—	—
Mingo Logan Daniel Hollow / 46-09047	—	—	—	—	—	—	—	No	No	—	—	—
Leer #1 Mine / 46-09192	11	—	—	—	—	48.4	—	No	No	4	4	2
Arch of Wyoming Elk Mountain / 48-01694	—	—	—	—	—	—	—	No	No	—	—	—
Black Thunder / 48-00977	—	—	—	—	—	2.2	—	No	No	—	—	—
Coal Creek / 48-01215	1	—	—	—	—	.4	—	No	No	—	—	—
West Elk Mine / 05-03672	9	—	—	—	—	51.6	—	No	No	2	—	2
Viper Mine / 11-02664	8	—	—	—	—	28.2	—	No	No	—	—	—
Leer #1 Prep Plant / 46-09191	—	—	—	—	—	0.1	—	No	No	—	—	—
Wolf Run Mining – Sawmill Run Prep Plant / 46-05544	—	—	—	—	—	—	—	No	No	—	—	—
Wolf Run Mining / Imperial / 46-09115	—	—	—	—	—	—	—	No	No	—	—	—
Wolf Run Mining / Upshur / 46-05823	—	—	—	—	—	0.1	—	No	No	—	—	—

(1) See table below for additional details regarding Legal Actions Pending as of September 30, 2019.

Mine or Operating Name/MSHA Identification Number	**Contests of Citations, Orders (as of September 30, 2019)**	**Contests of Proposed Penalties (as of September 30, 2019)**	**Complaints for Compensation (as of September 30, 2019)**	**Complaints of Discharge, Discrimination or Interference (as of September 30, 2019)**	**Applications for Temporary Relief (as of September 30, 2019)**	**Appeals of Judges' Decisions or Orders (as of September 30, 2019)**
Beckley Pocahontas Mine / 46-05252	5	2	—	—	—	—
Mingo Logan Mountaineer II / 46-09029	—	4	—	—	—	—
Leer #1 / 46-09192	—	2	—	—	—	—
Wolf Run Mining / Sentinel / 46-04168	—	1	—	—	—	—
Mountain Coal / West Elk / 05-03672	—	2	—	—	—	—