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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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, 2017

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: 001-36120

ANTERO RESOURCES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**80-0162034**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
1615 Wynkoop Street **Denver, Colorado**	**80202**
(Address of principal executive offices)	(Zip Code)

(303) 357-7310

(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 ☐
(Do not check if a 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

The registrant had 315,632,497 shares of common stock outstanding as of October 26, 2017.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The information in this report includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical fact included in this Quarterly Report on Form 10-Q, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used, the words "could," "believe," "anticipate," "intend," "estimate," "expect," "project" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on our current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements described under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016 (our "2016 Form 10-K") on file with the Securities and Exchange Commission (the "SEC") and in "Item 1A. Risk Factors" of our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017.

Forward-looking statements may include statements about our:

- business strategy;
- reserves;
- financial strategy, liquidity, and capital required for our development program;
- natural gas, natural gas liquids ("NGLs"), and oil prices;
- timing and amount of future production of natural gas, NGLs, and oil;
- hedging strategy and results;
- ability to meet our minimum volume commitments and to utilize or monetize our firm transportation commitments;
- future drilling plans;
- competition and government regulations;
- pending legal or environmental matters;
- marketing of natural gas, NGLs, and oil;
- leasehold or business acquisitions;
- costs of developing our properties;
- operations of Antero Midstream, including the operations of its unconsolidated affiliates;
- general economic conditions;
- credit markets;
- uncertainty regarding our future operating results; and
- plans, objectives, expectations, and intentions.

We caution you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond our control, incident to the exploration for and development, production, gathering, processing, transportation, and sale of natural gas, NGLs, and oil. These risks include, but are not limited to, commodity price

volatility and low commodity prices, inflation, availability of drilling and production equipment and services, environmental risks, drilling and other operating risks, marketing and transportation risks, regulatory changes, the uncertainty inherent in estimating natural gas, NGLs, and oil reserves and in projecting future rates of production, cash flow and access to capital, the timing of development expenditures, and the other risks described under the heading "Item 1A. Risk Factors" in our 2016 Form 10-K on file with the SEC and in "Item 1A. Risk Factors" of our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017.

Reserve engineering is a process of estimating underground accumulations of natural gas, NGLs, and oil that cannot be measured in an exact manner. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data, and the price and cost assumptions made by reservoir engineers. In addition, the results of drilling, testing, and production activities, or changes in commodity prices, may justify revisions of estimates that were made previously. If significant, such revisions would change the schedule of any further production and development drilling. Accordingly, reserve estimates may differ significantly from the quantities of natural gas, NGLs, and oil that are ultimately recovered.

Should one or more of the risks or uncertainties described in this report occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements.

All forward-looking statements, expressed or implied, included in this report are expressly qualified in their entirety by this cautionary statement. This cautionary statement should also be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue.

Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements, all of which are expressly qualified by the statements in this section, to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q.

PART I—FINANCIAL INFORMATION
ANTERO RESOURCES CORPORATION
Condensed Consolidated Balance Sheets
December 31, 2016 and September 30, 2017
(Unaudited)
(In thousands, except per share amounts)

	December 31, 2016	September 30, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 31,610	23,694
Accounts receivable, net of allowance for doubtful accounts of $1,195 and $1,320 at December 31, 2016 and September 30, 2017, respectively	29,682	43,854
Accrued revenue	261,960	233,585
Derivative instruments	73,022	299,796
Other current assets	6,313	10,024
Total current assets	402,587	610,953
Property and equipment:		
Natural gas properties, at cost (successful efforts method):		
Unproved properties	2,331,173	2,305,749
Proved properties	9,549,671	10,779,043
Water handling and treatment systems	744,682	891,869
Gathering systems and facilities	1,723,768	1,977,510
Other property and equipment	41,231	54,571
	14,390,525	16,008,742
Less accumulated depletion, depreciation, and amortization	(2,363,778)	(2,973,544)
Property and equipment, net	12,026,747	13,035,198
Derivative instruments	1,731,063	876,293
Investments in unconsolidated affiliates	68,299	287,842
Other assets	26,854	38,928
Total assets	$ 14,255,550	14,849,214
Liabilities and Equity		
Current liabilities:		
Accounts payable	$ 38,627	47,457
Accrued liabilities	393,803	429,696
Revenue distributions payable	163,989	220,971
Derivative instruments	203,635	4,285
Other current liabilities	17,334	15,267
Total current liabilities	817,388	717,676
Long-term liabilities:		
Long-term debt	4,703,973	4,510,521
Deferred income tax liability	950,217	1,180,564
Derivative instruments	234	427
Other liabilities	55,160	52,764
Total liabilities	6,526,972	6,461,952
Commitments and contingencies (notes 10 and 13)		
Equity:		
Stockholders' equity:		
Preferred stock, $0.01 par value; authorized - 50,000 shares; none issued	—	—
Common stock, $0.01 par value; authorized - 1,000,000 shares; 314,877 shares and 315,470 shares issued and outstanding at December 31, 2016 and September 30, 2017, respectively	3,149	3,155
Additional paid-in capital	5,299,481	6,564,320
Accumulated earnings	959,995	1,088,196
Total stockholders' equity	6,262,625	7,655,671
Noncontrolling interests in consolidated subsidiary	1,465,953	731,591
Total equity	7,728,578	8,387,262
Total liabilities and equity	$ 14,255,550	14,849,214

See accompanying notes to condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
Three Months Ended September 30, 2016 and 2017
(Unaudited)
(In thousands, except per share amounts)

	Three Months Ended September 30,	
	2016	2017
Revenue:		
Natural gas sales	$ 364,373	409,141
Natural gas liquids sales	106,958	224,533
Oil sales	14,793	26,527
Gathering, compression, water handling and treatment	2,969	2,869
Marketing	97,076	50,767
Commodity derivative fair value gains (losses)	530,334	(65,957)
Total revenue	1,116,503	647,880
Operating expenses:		
Lease operating	13,854	23,491
Gathering, compression, processing, and transportation	234,915	282,134
Production and ad valorem taxes	15,554	22,995
Marketing	114,611	78,884
Exploration	1,166	1,599
Impairment of unproved properties	11,753	41,000
Depletion, depreciation, and amortization	199,113	206,968
Accretion of asset retirement obligations	628	658
General and administrative (including equity-based compensation expense of $26,381 and $26,447 in 2016 and 2017, respectively)	57,577	62,203
Total operating expenses	649,171	719,932
Operating income (loss)	467,332	(72,052)
Other income (expenses):		
Equity in earnings of unconsolidated affiliates	1,543	7,033
Interest	(59,755)	(70,059)
Total other expenses	(58,212)	(63,026)
Income (loss) before income taxes	409,120	(135,078)
Provision for income tax (expense) benefit	(140,924)	45,078
Net income (loss) and comprehensive income (loss) including noncontrolling interests	268,196	(90,000)
Net income and comprehensive income attributable to noncontrolling interests	29,941	45,063
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ 238,255	(135,063)
Earnings (loss) per common share—basic	$ 0.78	(0.43)
Earnings (loss) per common share—assuming dilution	$ 0.77	(0.43)
Weighted average number of shares outstanding:		
Basic	306,785	315,463
Diluted	308,657	315,463

See accompanying notes to condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
Nine Months Ended September 30, 2016 and 2017
(Unaudited)
(In thousands, except per share amounts)

	Nine Months Ended September 30,	
	2016	2017
Revenue and other:		
Natural gas sales	$ 848,936	1,330,062
Natural gas liquids sales	274,736	590,004
Oil sales	41,712	79,999
Gathering, compression, water handling and treatment	10,107	8,665
Marketing	287,194	166,659
Commodity derivative fair value gains	125,624	458,459
Total revenue and other	1,588,309	2,633,848
Operating expenses:		
Lease operating	37,190	56,034
Gathering, compression, processing, and transportation	649,713	815,710
Production and ad valorem taxes	52,296	70,341
Marketing	378,521	246,298
Exploration	3,289	5,510
Impairment of unproved properties	47,223	83,098
Depletion, depreciation, and amortization	588,057	610,879
Accretion of asset retirement obligations	1,846	1,944
General and administrative (including equity-based compensation expense of $75,667 and $78,925 in 2016 and 2017, respectively)	173,966	191,000
Total operating expenses	1,932,101	2,080,814
Operating income (loss)	(343,792)	553,034
Other income (expenses):		
Equity in earnings of unconsolidated affiliates	2,027	12,887
Interest	(185,634)	(205,311)
Total other expenses	(183,607)	(192,424)
Income (loss) before income taxes	(527,399)	360,610
Provision for income tax (expense) benefit	230,755	(105,087)
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(296,644)	255,523
Net income and comprehensive income attributable to noncontrolling interests	66,400	127,322
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (363,044)	128,201
Earnings (loss) per common share—basic	$ (1.26)	0.41
Earnings (loss) per common share—assuming dilution	$ (1.26)	0.41
Weighted average number of shares outstanding:		
Basic	288,607	315,275
Diluted	288,607	316,140

See accompanying notes to condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Equity
Nine Months Ended September 30, 2017
(Unaudited)
(In thousands)

	Common Stock		Additional paid-in capital	Accumulated earnings	Noncontrolling interests	Total equity
	Shares	Amount				
Balances, December 31, 2016	314,877	$3,149	5,299,481	959,995	1,465,953	7,728,578
Issuance of common stock upon vesting of equity-based compensation awards, net of shares withheld for income taxes	593	6	(7,574)	—	—	(7,568)
Issuance of common units by Antero Midstream Partners LP, net of underwriter discounts and offering costs	—	—	—	—	248,949	248,949
Issuance of common units in Antero Midstream Partners LP upon vesting of equity-based compensation awards, net of units withheld for income taxes	—	—	(1,559)	—	627	(932)
Sale of common units of Antero Midstream Partners LP held by Antero Resources Corporation, net of tax	—	—	205,780	—	(19,940)	185,840
Equity-based compensation	—	—	71,786	—	7,139	78,925
Net income and comprehensive income	—	—	—	128,201	127,322	255,523
Effects of changes in ownership interests in consolidated subsidiaries	—	—	996,406	—	(996,406)	—
Distributions to noncontrolling interests	—	—	—	—	(102,053)	(102,053)
Balances, September 30, 2017	315,470	$3,155	6,564,320	1,088,196	731,591	8,387,262

See accompanying notes to condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Cash Flows
Nine Months Ended September 30, 2016 and 2017
(Unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2016	**2017**
Cash flows from operating activities:		
Net income (loss) including noncontrolling interests	$ (296,644)	255,523
Adjustment to reconcile net income (loss) to net cash provided by operating activities:		
Depletion, depreciation, amortization, and accretion	589,903	612,823
Impairment of unproved properties	47,223	83,098
Derivative fair value gains	(125,624)	(458,459)
Gains on settled derivatives	813,559	137,392
Proceeds from derivative monetizations	—	749,906
Deferred income tax expense (benefit)	(230,755)	105,087
Equity-based compensation expense	75,667	78,925
Equity in earnings of unconsolidated affiliates	(2,027)	(12,887)
Distributions of earnings from unconsolidated affiliates	—	10,120
Other	(1,544)	1,191
Changes in current assets and liabilities:		
Accounts receivable	10,077	1,771
Accrued revenue	(68,248)	28,375
Other current assets	4,685	(3,836)
Accounts payable	5,683	4,731
Accrued liabilities	41,386	43,043
Revenue distributions payable	42,253	56,982
Other current liabilities	103	(977)
Net cash provided by operating activities	905,697	1,692,808
Cash flows used in investing activities:		
Additions to proved properties	(64,789)	(179,318)
Additions to unproved properties	(559,572)	(182,207)
Drilling and completion costs	(1,009,851)	(946,508)
Additions to water handling and treatment systems	(137,355)	(143,470)
Additions to gathering systems and facilities	(154,136)	(254,619)
Additions to other property and equipment	(1,747)	(11,417)
Investments in unconsolidated affiliates	(45,044)	(216,776)
Change in other assets	(2,173)	(16,148)
Other	—	2,156
Net cash used in investing activities	(1,974,667)	(1,948,307)
Cash flows from financing activities:		
Issuance of common stock	837,414	—
Issuance of common units by Antero Midstream Partners LP	19,605	248,949
Proceeds from sale of common units of Antero Midstream Partners LP held by Antero Resources Corporation	178,000	311,100
Issuance of senior notes	650,000	—
Repayments on bank credit facilities, net	(552,000)	(198,000)
Payments of deferred financing costs	(9,029)	—
Distributions to noncontrolling interests in consolidated subsidiary	(51,238)	(102,053)
Employee tax withholding for settlement of equity compensation awards	(4,876)	(8,500)
Other	(3,867)	(3,913)
Net cash provided by financing activities	1,064,009	247,583
Net decrease in cash and cash equivalents	(4,961)	(7,916)
Cash and cash equivalents, beginning of period	23,473	31,610
Cash and cash equivalents, end of period	$ 18,512	23,694
Supplemental disclosure of cash flow information:		
Cash paid during the period for interest	$ 132,928	174,324
Supplemental disclosure of noncash investing activities:		
Decrease in accounts payable and accrued liabilities for additions to property and equipment	$ (189,234)	(3,084)

See accompanying notes to condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

(1) Organization

Antero Resources Corporation (individually referred to as "Antero" or the "Parent") and its consolidated subsidiaries (collectively referred to as the "Company") are engaged in the exploration, development, and acquisition of natural gas, NGLs, and oil properties in the Appalachian Basin in West Virginia and Ohio. The Company targets large, repeatable resource plays where horizontal drilling and advanced fracture stimulation technologies provide the means to economically develop and produce natural gas, NGLs, and oil from unconventional formations. Through its consolidated subsidiary, Antero Midstream Partners LP, a publicly-traded limited partnership ("Antero Midstream"), the Company has gathering and compression, as well as water handling and treatment, operations in the Appalachian Basin. The Company's corporate headquarters are located in Denver, Colorado.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

These condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the SEC applicable to interim financial information and should be read in the context of the December 31, 2016 consolidated financial statements and notes thereto for a more complete understanding of the Company's operations, financial position, and accounting policies. The December 31, 2016 consolidated financial statements have been filed with the Securities and Exchange Commission ("SEC") in the Company's 2016 Form 10-K.

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information, and, accordingly, do not include all of the information and footnotes required by GAAP for complete consolidated financial statements. In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments (consisting of normal and recurring accruals) considered necessary to present fairly the Company's financial position as of December 31, 2016 and September 30, 2017, the results of its operations for the three and nine months ended September 30, 2016 and 2017, and its cash flows for the nine months ended September 30, 2016 and 2017. The Company has no items of other comprehensive income or loss; therefore, its net income or loss is identical to its comprehensive income or loss. Operating results for the period ended September 30, 2017 are not necessarily indicative of the results that may be expected for the full year because of the impact of fluctuations in prices received for natural gas, NGLs, and oil, natural production declines, the uncertainty of exploration and development drilling results, fluctuations in the fair value of derivative instruments, and other factors. The Company's statement of cash flows for the nine months ended September 30, 2016 includes reclassifications within current liabilities that were made to conform to the nine months ended September 30, 2017 presentation.

The Company's exploration and production activities are accounted for under the successful efforts method.

As of the date these financial statements were filed with the SEC, the Company completed its evaluation of potential subsequent events for disclosure and no items requiring disclosure were identified except for the amended and restated credit facilities entered into by Antero and Antero Midstream in October 2017. See note 5 for descriptions of the amended and restated facilies.

(b) Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Antero, its wholly-owned subsidiaries, any entities in which the Company owns a controlling interest, and variable interest entities ("VIEs") for which the Company is the primary beneficiary.

We have determined that Antero Midstream is a VIE for which Antero is the primary beneficiary. Therefore, Antero Midstream's accounts are included in the Company's condensed consolidated financial statements. Antero is the primary beneficiary of Antero Midstream based on its power to direct the activities that most significantly impact Antero Midstream's economic performance, and its obligation to absorb losses or right to receive benefits of Antero Midstream that could be significant to Antero Midstream.

Antero Midstream was formed to own, operate, and develop midstream energy assets to service Antero's production under long-term service contracts. Antero owned 53.0% of the outstanding limited partner interests in Antero Midstream at September 30, 2017. Antero Midstream GP LP ("AMGP") indirectly controls the general partnership interest in Antero Midstream as well as Antero IDR

Holdings LLC ("IDR LLC"), which owns the incentive distribution rights in Antero Midstream. AMGP has not provided, and is not expected to provide, financial support to Antero Midstream. Antero's officers and management group also act as management of Antero Midstream and AMGP.

Antero and Antero Midstream have contracts with 20-year initial terms and automatic renewal provisions, whereby Antero has dedicated the rights for gathering and compression, and water delivery and handling, services to Antero Midstream on a fixed-fee basis. Such dedications cover a substantial portion of Antero's current acreage and future acquired acreage, in each case, except for acreage that was already dedicated to other parties prior to entering into the service contracts or that was acquired subject to a pre-existing dedication. The contracts call for Antero to present, in advance, its drilling and completion plans in order for Antero Midstream to develop gathering and compression and water delivery and handling assets to service Antero's operations. Consequently, the drilling and completion capital investment decisions made by Antero control the development and operation of all of Antero Midstream's assets. Because of these contractual obligations and the capital requirements related to these obligations, Antero Midstream has and, for the foreseeable future, will devote substantially all of its resources to servicing Antero's operations. Additionally, revenues from Antero provide substantially all of Antero Midstream's financial support and, therefore, its ability to finance its operations. As a result of the long-term contractual commitment to support Antero's substantial growth plans, Antero Midstream will be practically and physically constrained from providing any substantive amount of services to third-parties. Therefore, Antero controls the activities that most significantly impact Antero Midstream's economic performance. Antero does not control AMGP and does not have any investment in AMGP.

All significant intercompany accounts and transactions have been eliminated in the Company's condensed consolidated financial statements. Noncontrolling interest in the Company's condensed consolidated financial statements represents the interests in Antero Midstream which are owned by the public and the holder of Antero Midstream's incentive distribution rights. Noncontrolling interests in consolidated subsidiaries is included as a component of equity in the Company's condensed consolidated balance sheets.

Investments in entities for which the Company exercises significant influence, but not control, are accounted for under the equity method. Such investments are included in Investments in unconsolidated affiliates on the Company's condensed consolidated balance sheets. Income from investees that are accounted for under the equity method is included in Equity in earnings of unconsolidated affiliates on the Company's condensed consolidated statements of operations and cash flows.

(c) Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires that management formulate estimates and assumptions which affect revenues, expenses, assets, and liabilities, as well as the disclosure of contingent assets and liabilities. Changes in facts and circumstances or discovery of new information may result in revised estimates, and actual results could differ from those estimates.

The Company's condensed consolidated financial statements are based on a number of significant estimates including estimates of natural gas, NGLs, and oil reserve quantities, which are the basis for the calculation of depletion and impairment of oil and gas properties. Reserve estimates, by their nature, are inherently imprecise. Other items in the Company's condensed consolidated financial statements which involve the use of significant estimates include derivative assets and liabilities, accrued revenue, deferred income taxes, equity-based compensation, asset retirement obligations, depreciation, amortization, and commitments and contingencies.

(d) Risks and Uncertainties

Historically, the markets for natural gas, NGLs, and oil have experienced significant price fluctuations. Price fluctuations can result from variations in weather, levels of production, availability of transportation capacity to other regions of the country, and various other factors. Increases or decreases in the prices the Company receives for its production could have a significant impact on the Company's future results of operations and reserve quantities.

(e) Derivative Financial Instruments

In order to manage its exposure to natural gas, NGLs, and oil price volatility, the Company enters into derivative transactions from time to time, which may include commodity swap agreements, basis swap agreements, collar agreements, and other similar

agreements related to the price risk associated with the Company's production. To the extent legal right of offset exists with a counterparty, the Company reports derivative assets and liabilities on a net basis. The Company has exposure to credit risk to the extent that the counterparty is unable to satisfy its settlement obligations. The Company actively monitors the creditworthiness of counterparties and assesses the impact, if any, on its derivative position.

The Company records derivative instruments on the condensed consolidated balance sheets as either assets or liabilities measured at fair value and records changes in the fair value of derivatives in current earnings as they occur. Changes in the fair value of commodity derivatives, including gains or losses on settled derivatives, are classified as revenues on the Company's condensed consolidated statements of operations. The Company's derivatives have not been designated as hedges for accounting purposes.

(f) Industry Segments and Geographic Information

Management has evaluated how the Company is organized and managed and has identified the following segments: (1) the exploration, development, and production of natural gas, NGLs, and oil; (2) gathering and processing; (3) water handling and treatment; and (4) marketing of excess firm transportation capacity.

All of the Company's assets are located in the United States and substantially all of its production revenues are attributable to customers located in the United States.

(g) Earnings (Loss) per Common Share

Earnings (loss) per common share—basic for each period is computed by dividing net income (loss) attributable to Antero by the basic weighted average number of shares outstanding during the period. Earnings (loss) per common share—assuming dilution for each period is computed after giving consideration to the potential dilution from outstanding equity awards, calculated using the treasury stock method. The Company includes performance share unit awards in the calculation of diluted weighted average shares outstanding based on the number of common shares that would be issuable if the end of the period was also the end of the performance period required for the vesting of such awards. During periods in which the Company incurs a net loss, diluted weighted average shares outstanding are equal to basic weighted average shares outstanding because the effect of all equity awards is antidilutive. The following is a reconciliation of the Company's basic weighted average shares outstanding to diluted weighted average shares outstanding during the periods presented (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2017	2016	2017
Basic weighted average number of shares outstanding	306,785	315,463	288,607	315,275
Add: Dilutive effect of non-vested restricted stock units	1,835	—	—	828
Add: Dilutive effect of outstanding stock options	—	—	—	—
Add: Dilutive effect of performance stock units	37	—	—	37
Diluted weighted average number of shares outstanding	308,657	315,463	288,607	316,140
Weighted average number of outstanding equity awards excluded from calculation of diluted earnings per common share(1):				
Non-vested restricted stock and restricted stock units	1,251	5,054	6,899	2,293
Outstanding stock options	693	674	706	679
Performance stock units	660	1,293	577	1,002

(1) The potential dilutive effects of these awards were excluded from the computation of earnings (loss) per common share—assuming dilution because the inclusion of these awards would have been anti-dilutive.

(h) Cash and Cash Equivalents

The Company considers all liquid investments purchased with an initial maturity of three months or less to be cash equivalents. The carrying value of cash and cash equivalents approximates fair value due to the short term nature of these instruments. From time to time, the Company may be in the position of a "book overdraft" in which outstanding checks exceed cash and cash equivalents.

The Company classifies book overdrafts within accounts payable within its condensed consolidated balance sheets, and classifies the change in accounts payable associated with book overdrafts as an operating activity within its condensed consolidated statements of cash flows.

(i) Income Taxes

For the three and nine months ended September 30, 2016 and 2017, respectively, the Company's overall effective tax rate was different than the statutory rate of 35% primarily due to the effects of noncontrolling interest income, state tax rates, and permanent differences on vested equity compensation awards.

(3) Antero Midstream Partners LP

In 2014, the Company formed Antero Midstream to own, operate, and develop midstream energy assets that service Antero's production. Antero Midstream's assets consist of gathering systems and facilities, water handling and treatment facilities, and interests in processing and fractionation plants, through which it provides services to Antero under long-term, fixed-fee contracts. AMGP indirectly owns the general partnership interest in Antero Midstream and directly owns capital interests in IDR LLC, which owns the incentive distribution rights in Antero Midstream. Antero Midstream is an unrestricted subsidiary as defined by Antero's senior secured revolving bank credit facility (the "Credit Facility"). As an unrestricted subsidiary, Antero Midstream and its subsidiaries are not guarantors of Antero's obligations, and Antero is not a guarantor of Antero Midstream's obligations (see Note 12).

In connection with Antero's contribution of its water handling and treatment assets to Antero Midstream in September 2015, Antero Midstream agreed to pay Antero (a) $125 million in cash if Antero Midstream delivers 176,295,000 barrels or more of fresh water during the period between January 1, 2017 and December 31, 2019 and (b) an additional $125 million in cash if Antero Midstream delivers 219,200,000 barrels or more of fresh water during the period between January 1, 2018 and December 31, 2020.

Antero Midstream has an Equity Distribution Agreement (the "Distribution Agreement") pursuant to which Antero Midstream may sell, from time to time through brokers acting as its sales agents, common units representing limited partner interests having an aggregate offering price of up to $250 million. Sales of the common units are made by means of ordinary brokers' transactions on the New York Stock Exchange, at market prices, in block transactions, or as otherwise agreed to between Antero Midstream and the sales agents. Proceeds are used for general partnership purposes, which may include repayment of indebtedness and funding working capital or capital expenditures. Antero Midstream is under no obligation to offer and sell common units under the Distribution Agreement.

During the nine months ended September 30, 2017, Antero Midstream issued and sold 777,262 common units under the Distribution Agreement, resulting in net proceeds of $25.5 million after deducting commissions and other offering costs. As of September 30, 2017, Antero Midstream had the capacity to issue additional common units under the Distribution Agreement up to an aggregate sales price of $157.3 million.

On May 26, 2016, Antero Midstream purchased a 15% equity interest in a regional gathering pipeline. This investment is accounted for under the equity method, and had a carrying amount of $67.5 million at September 30, 2017. Antero Midstream's equity share of the pipeline's earnings was $7.7 million during the nine months ended September 30, 2017.

On February 6, 2017, Antero Midstream formed a joint venture (the "Joint Venture") to develop processing assets in Appalachia with MarkWest Energy Partners, L.P. ("MarkWest"), a wholly owned subsidiary of MPLX, L.P. Antero Midstream and MarkWest each own a 50% equity interest in the Joint Venture and MarkWest operates the Joint Venture assets. The Joint Venture assets consist of processing plants in West Virginia and a one-third interest in a recently commissioned MarkWest fractionator in Ohio. The Joint Venture is accounted for under the equity method, and had a carrying amount of $220.3 million at September 30, 2017. Antero Midstream's equity share of the Joint Venture's earnings was $5.2 million during the nine months ended September 30, 2017.

In conjunction with the formation of the Joint Venture, on February 10, 2017, Antero Midstream issued 6,900,000 common units, including common units issued pursuant to the underwriters' option to purchase additional common units, generating net proceeds of approximately $223 million. Antero Midstream used the net proceeds to fund the initial contribution to the Joint Venture, repay outstanding borrowings under its credit facility, dated as of November 10, 2014 (the "Prior Midstream Facility"), and for general partnership purposes.

On September 11, 2017, Antero sold 10,000,000 common units representing limited partnership interests in Antero Midstream for approximately $311 million. The sale of the units is reflected in stockholders' equity as additional paid-in capital, net of taxes. Proceeds from the sale were used to pay down amounts outstanding under Antero' credit facility, dated as of November 4, 2010 (the "Prior Credit Facility").

Antero owned approximately 60.9% and 53.0% of the limited partner interests of Antero Midstream at December 31, 2016 and September 30, 2017, respectively.

(4) Accrued Liabilities

Accrued liabilities as of December 31, 2016 and September 30, 2017 consisted of the following items (in thousands):

	December 31, 2016	September 30, 2017
Capital expenditures	$ 159,811	162,116
Gathering, compression, processing, and transportation expenses	75,223	84,388
Marketing expenses	52,822	32,455
Interest expense	35,533	66,398
Other	70,414	84,339
	$ 393,803	429,696

(5) Long-Term Debt

Long-term debt was as follows at December 31, 2016 and September 30, 2017 (in thousands):

	December 31, 2016	September 30, 2017
Antero:		
Prior Credit Facility(a)	$ 440,000	25,000
5.375% senior notes due 2021(b)	1,000,000	1,000,000
5.125% senior notes due 2022(c)	1,100,000	1,100,000
5.625% senior notes due 2023(d)	750,000	750,000
5.00% senior notes due 2025(e)	600,000	600,000
Net unamortized premium	1,749	1,588
Net unamortized debt issuance costs	(37,690)	(33,789)
Antero Midstream:		
Prior Midstream Facility(g)	210,000	427,000
5.375% senior notes due 2024(h)	650,000	650,000
Net unamortized debt issuance costs	(10,086)	(9,278)
	$ 4,703,973	4,510,521

Antero Resources Corporation

(a) Senior Secured Revolving Credit Facility

Antero's Credit Facility (as defined below) is with a consortium of bank lenders. On November 4, 2010, Antero entered into a credit facility with a consortium of bank lenders (the "Prior Credit Facility"). On October 26, 2017, Antero entered into an amendment and restatement of the Prior Credit Facility (the "Credit Facility"). Borrowings under the Credit Facility are subject to borrowing base limitations based on the collateral value of Antero's assets and are subject to regular annual redeterminations. At September 30, 2017, the borrowing base under the Prior Credit Facility was $4.75 billion and lender commitments were $4.0 billion. As of October 26, 2017, the Credit Facility had a maximum facility amount of $4.75 billion, aggregate commitments were $2.5 billion, and the facility was subject to a $4.5 billion borrowing base. The next redetermination of the borrowing base under the Credit Facility is scheduled to occur in March 2018. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the maturity of any series of Antero's senior notes, unless such series of notes is refinanced.

Under the Credit Facility, "Investment Grade Period" is a period that, as long as no event of default has occurred, commences when Antero elects to give notice to the Administrative Agent that Antero has received at least one of (i) a BBB- or better rating from Standard and Poor's and (ii) a Baa3 or better rating from Moody's (an "Investment Grade Rating"). An Investment Grade Period can end at Antero's election.

During any period that is not an Investment Grade Period, the Credit Facility is ratably secured by mortgages on substantially all of Antero's properties and guarantees from Antero's restricted subsidiaries, as applicable. During an Investment Grade Period, the liens securing the obligations under the Credit Facility shall be automatically released (subject to the provisions of the Credit Facility). The Credit Facility contains certain covenants, including restrictions on indebtedness and dividends, and requirements with respect to working capital and interest coverage ratios. Interest is payable at a variable rate based on LIBOR or the prime rate, determined by Antero's election at the time of borrowing. During an Investment Grade Period, the margin applicable to the Credit Facility borrowings is determined with reference to Antero's credit rating and ranges from 0.125% to 0.50% lower than rates during a period that is not an Investment Grade Period, depending on Antero's credit rating and utilization under the Credit Facility. During any period that is not an Investment Grade Period, the margin applicable to the Credit Facility borrowings is determined with reference to utilization under the Credit Facility.

Antero was in compliance with all of the financial covenants under the Prior Credit Facility as of December 31, 2016 and September 30, 2017.

As of September 30, 2017, Antero had a total outstanding balance under the Prior Credit Facility of $25 million, with a weighted average interest rate of 4.75%, and outstanding letters of credit of $700 million. As of December 31, 2016, Antero had an outstanding balance under the Prior Credit Facility of $440 million, with a weighted average interest rate of 2.44%, and outstanding letters of credit of $710 million. Commitment fees on the unused portion of the Credit Facility are due quarterly at rates ranging from (i) 0.300% to 0.375% (during any period that is not an Investment Grade Period) of the unused portion based on utilization and (ii) 0.150% to 0.300% (during an Investment Grade Period) of the unused portion based on Antero's credit rating.

(b) 5.375% Senior Notes Due 2021

On November 5, 2013, Antero issued $1 billion of 5.375% senior notes due November 1, 2021 (the "2021 notes") at par. The 2021 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2021 notes rank pari passu to Antero's other outstanding senior notes. The 2021 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly-owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2021 notes is payable on May 1 and November 1 of each year. Antero may redeem all or part of the 2021 notes at any time at redemption prices ranging from 104.031% currently to 100.00% on or after November 1, 2019. If Antero undergoes a change of control, the holders of the 2021 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2021 notes, plus accrued and unpaid interest.

(c) 5.125% Senior Notes Due 2022

On May 6, 2014, Antero issued $600 million of 5.125% senior notes due December 1, 2022 (the "2022 notes") at par. On September 18, 2014, Antero issued an additional $500 million of the 2022 notes at 100.5% of par. The 2022 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2022 notes rank pari passu to Antero's other outstanding senior notes. The 2022 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly-owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2022 notes is payable on June 1 and December 1 of each year. Antero may redeem all or part of the 2022 notes at any time at redemption prices ranging from 103.844% currently to 100.00% on or after June 1, 2020. If Antero undergoes a change of control, the holders of the 2022 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2022 notes, plus accrued and unpaid interest.

(d) 5.625% Senior Notes Due 2023

On March 17, 2015, Antero issued $750 million of 5.625% senior notes due June 1, 2023 (the "2023 notes") at par. The 2023 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit

Facility. The 2023 notes rank pari passu to Antero's other outstanding senior notes. The 2023 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly-owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2023 notes is payable on June 1 and December 1 of each year. Antero may redeem all or part of the 2023 notes at any time on or after June 1, 2018 at redemption prices ranging from 104.219% on or after June 1, 2018 to 100.00% on or after June 1, 2021. In addition, on or before June 1, 2018, Antero may redeem up to 35% of the aggregate principal amount of the 2023 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.625% of the principal amount of the 2023 notes, plus accrued and unpaid interest. At any time prior to June 1, 2018, Antero may also redeem the 2023 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2023 notes plus a "make-whole" premium and accrued and unpaid interest. If Antero undergoes a change of control, the holders of the 2023 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2023 notes, plus accrued and unpaid interest.

(e) 5.00% Senior Notes Due 2025

On December 21, 2016, Antero issued $600 million of 5.00% senior notes due March 1, 2025 (the "2025 notes") at par. The 2025 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2025 notes rank pari passu to Antero's other outstanding senior notes. The 2025 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly-owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2025 notes is payable on March 1 and September 1 of each year. Antero may redeem all or part of the 2025 notes at any time on or after March 1, 2020 at redemption prices ranging from 103.750% on or after March 1, 2020 to 100.00% on or after March 1, 2023. In addition, on or before March 1, 2020, Antero may redeem up to 35% of the aggregate principal amount of the 2025 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.00% of the principal amount of the 2025 notes, plus accrued and unpaid interest. At any time prior to March 1, 2020, Antero may also redeem the 2025 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2025 notes plus a "make-whole" premium and accrued and unpaid interest. If Antero undergoes a change of control, the holders of the 2025 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2025 notes, plus accrued and unpaid interest.

(f) Treasury Management Facility

Antero has a stand-alone revolving note with a lender which provides for up to $25 million of cash management obligations in order to facilitate Antero's daily treasury management. Borrowings under the revolving note are secured by the collateral for the Credit Facility. Borrowings under the revolving note bear interest at the lender's prime rate plus 1.0%. The note matures on May 1, 2018. At December 31, 2016 and September 30, 2017, there were no outstanding borrowings under this note.

Antero Midstream Partners LP

(g) Senior Secured Revolving Credit Facility – Antero Midstream

Antero Midstream has a secured revolving credit facility (the "Midstream Facility") with a syndicate of bank lenders. The Midstream Facility is an amendment and restatement of the Prior Midstream Facility, and provides for lender commitments of $1.5 billion. The maturity date of the Midstream Facility is October 26, 2022.

During any period that is not an Investment Grade Period (as such term is defined in the Midstream Facility), the Midstream Facility is ratably secured by mortgages on substantially all of the properties of Antero Midstream and guarantees from its restricted subsidiaries, as applicable. During an Investment Grade Period under the Midstream Facility, the liens securing the Midstream Facility are automatically released (subject to the provisions of the Midstream Facility). The Midstream Facility contains certain covenants, including restrictions on indebtedness and certain distributions to owners, and requirements with respect to leverage and interest coverage ratios. Interest is payable at a variable rate based on LIBOR or the prime rate, determined by election at the time of borrowing. Interest at the time of borrowing is determined with reference to (i) during any period that is not an Investment Grade Period, the Antero Midstream's then-current leverage ratio and (ii) during an Investment Grade Period, with reference to the rating given to the Partnership by Moody's or Standard and Poor's. During an Investment Grade Period, the applicable margin rates are reduced by 25 basis points. Antero Midstream was in compliance with all of the financial covenants under the Prior Midstream Facility as of December 31, 2016 and September 30, 2017.

As of September 30, 2017, Antero Midstream had an outstanding balance under the Prior Midstream Facility of $427 million with a weighted average interest rate of 2.82%. As of December 31, 2016, Antero Midstream had a total outstanding balance under the Prior Midstream Facility of $210 million with a weighted average interest rate of 2.23%. Commitment fees on the unused portion of the Midstream Facility are due quarterly at rates ranging from (i) 0.25% to 0.375% of the unused portion (during an period that is not an Investment Grade Period) based on the leverage ratio and (ii) 0.175% to 0.375% of the unused portion (during an Investment Grade Period) based on Antero Midstream's credit rating.

(h) 5.375% Senior Notes Due 2024 – Antero Midstream

On September 13, 2016, Antero Midstream and its wholly-owned subsidiary, Antero Midstream Finance Corporation ("Midstream Finance Corp.") as co-issuers, issued $650 million in aggregate principal amount of 5.375% senior notes due September 15, 2024 (the "2024 Midstream notes") at par. The 2024 Midstream notes are unsecured and effectively subordinated to the Midstream Facility to the extent of the value of the collateral securing the Midstream Facility. The 2024 Midstream notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero Midstream's wholly-owned subsidiaries, excluding Midstream Finance Corp., and certain of Antero Midstream's future restricted subsidiaries. Interest on the 2024 Midstream notes is payable on March 15 and September 15 of each year. Antero Midstream may redeem all or part of the 2024 Midstream notes at any time on or after September 15, 2019 at redemption prices ranging from 104.031% on or after September 15, 2019 to 100.00% on or after September 15, 2022. In addition, prior to September 15, 2019, Antero Midstream may redeem up to 35% of the aggregate principal amount of the 2024 Midstream notes with an amount of cash not greater than the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.375% of the principal amount of the 2024 Midstream notes, plus accrued and unpaid interest. At any time prior to September 15, 2019, Antero Midstream may also redeem the 2024 Midstream notes, in whole or in part, at a price equal to 100% of the principal amount of the 2024 Midstream notes plus a "make-whole" premium and accrued and unpaid interest. If Antero Midstream undergoes a change of control, the holders of the 2024 Midstream notes will have the right to require Antero Midstream to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2024 Midstream notes, plus accrued and unpaid interest.

(6) Asset Retirement Obligations

The following is a reconciliation of the Company's asset retirement obligations for the nine months ended September 30, 2017 (in thousands):

Asset retirement obligations—December 31, 2016	$	32,736
Obligations settled		(21)
Obligations incurred for wells drilled and producing properties acquired		3,399
Accretion expense		1,944
Asset retirement obligations—September 30, 2017	$	38,058

Asset retirement obligations are included in Other liabilities on the Company's condensed consolidated balance sheets.

(7) Equity-Based Compensation

Antero is authorized to grant up to 16,906,500 shares of common stock to employees and directors of the Company under the Antero Resources Corporation Long-Term Incentive Plan (the "Plan"). The Plan allows equity-based compensation awards to be granted in a variety of forms, including stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, dividend equivalent awards, and other types of awards. The terms and conditions of the awards granted are established by the Compensation Committee of Antero's Board of Directors. A total of 7,724,613 shares were available for future grant under the Plan as of September 30, 2017.

Antero Midstream is authorized to grant up to 10,000,000 common units representing limited partner interests in Antero Midstream under the Antero Midstream Partners LP Long-Term Incentive Plan (the "Midstream Plan") to non-employee directors of its general partner and certain officers, employees, and consultants of Antero Midstream and its affiliates (which include Antero). A total of 7,656,134 common units were available for future grant under the Midstream Plan as of September 30, 2017.

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

The Company's equity-based compensation expense, by type of award, was as follows for the three and nine months ended September 30, 2016 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2017	2016	2017
Restricted stock unit awards	$ 18,618	17,910	54,231	54,816
Stock options	638	614	1,939	1,850
Performance share unit awards	2,668	3,014	6,017	7,897
Antero Midstream phantom unit awards	3,977	4,420	11,978	12,906
Equity awards issued to directors	480	489	1,502	1,456
Total expense	$ 26,381	26,447	75,667	78,925

Restricted Stock Unit Awards

Restricted stock unit awards vest subject to the satisfaction of service requirements. Expense related to each restricted stock unit award is recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period. The grant date fair values of these awards are determined based on the closing price of the Company's common stock on the date of the grant.

A summary of restricted stock unit awards activity for the nine months ended September 30, 2017 is as follows:

	Number of shares	Weighted average grant date fair value	Aggregate intrinsic value (in thousands)
Total awarded and unvested—December 31, 2016	5,353,447	$ 31.77	$ 126,609
Granted	828,753	$ 22.21	
Vested	(834,796)	$ 43.46	
Forfeited	(353,152)	$ 27.10	
Total awarded and unvested—September 30, 2017	4,994,252	$ 28.56	$ 99,386

Intrinsic values are based on the closing price of the Company's stock on the referenced dates. As of September 30, 2017, there was $85.3 million of unamortized equity-based compensation expense related to unvested restricted stock units. That expense is expected to be recognized over a weighted average period of approximately 1.8 years.

Stock Options

Stock options granted under the Plan vest over periods from one to four years and have a maximum contractual life of 10 years. Expense related to stock options is recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period. Stock options are granted with an exercise price equal to or greater than the market price of the Company's common stock on the date of grant.

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

A summary of stock option activity for the nine months ended September 30, 2017 is as follows:

	Stock options	Weighted average exercise price	Weighted average remaining contractual life	Intrinsic value (in thousands)
Outstanding at December 31, 2016	687,929	$ 50.46	8.12	$ —
Granted	—	$ —		
Exercised	—	$ —		
Forfeited	(16,542)	$ 50.00		
Expired	—	$ —		
Outstanding at September 30, 2017	671,387	$ 50.47	7.32	$ —
Vested or expected to vest as of September 30, 2017	671,387	$ 50.47	7.32	$ —
Exercisable at September 30, 2017	363,605	$ 50.70	7.20	$ —

Intrinsic values are based on the exercise price of the options and the closing price of the Company's stock on the referenced dates. As of September 30, 2017, there was $3.3 million of unamortized equity-based compensation expense related to unvested stock options. That expense is expected to be recognized over a weighted average period of approximately 1.5 years.

Performance Share Unit Awards

Performance Share Unit Awards Based on Price Targets

In 2016, the Company granted performance share unit awards ("PSUs") to certain of its executive officers that are based on price targets. The vesting of these PSUs is conditioned on the closing price of the Company's common stock achieving specific price thresholds over 10-day periods, subject to the following vesting restrictions: no PSUs may vest before the first anniversary of the grant date; no more than one-third of the PSUs may vest before the second anniversary of the grant date; and no more than two-thirds of the PSUs may vest before the third anniversary of the grant date. Any PSUs which have not vested by the fifth anniversary of the grant date will expire. Expense related to these PSUs is recognized on a graded basis over three years.

Performance Share Unit Awards Based on Total Shareholder Return

In 2016 and 2017, the Company also granted PSUs to certain of its employees and executive officers which vest based on the total shareholder return ("TSR") of the Company's common stock relative to the TSR of a peer group of companies over a three-year performance period. The number of performance shares which may ultimately be earned ranges from zero to 200% of the PSUs granted. Expense related to these PSUs is recognized on a straight-line basis over three years.

Summary Information for Performance Share Unit Awards

A summary of PSU activity for the nine months ended September 30, 2017 is as follows:

	Number of units	Weighted average grant date fair value
Total awarded and unvested—December 31, 2016	785,301	$ 29.75
Granted	558,021	$ 26.21
Vested	(41,666)	$ 27.38
Forfeited	(8,623)	$ 29.86
Total awarded and unvested—September 30, 2017	1,293,033	$ 28.30

The following table presents information regarding the weighted average fair value for PSUs granted during the nine months ended September 30, 2017 and the assumptions used to determine the fair values.

	Nine Months Ended September 30, 2017
Dividend yield	— %
Volatility	42 %
Risk-free interest rate	1.40 %
Weighted average fair value of awards granted	$ 26.21

As of September 30, 2017, there was $21.1 million of unamortized equity-based compensation expense related to unvested PSUs. That expense is expected to be recognized over a weighted average period of approximately 2.1 years.

Antero Midstream Partners Phantom Unit Awards

Phantom units granted by Antero Midstream vest subject to the satisfaction of service requirements, upon the completion of which common units in Antero Midstream are delivered to the holder of the phantom units. These phantom units are treated, for accounting purposes, as if Antero Midstream distributed the units to Antero. Antero recognizes compensation expense as the units are granted to its employees, and a portion of the expense is allocated to Antero Midstream. Expense related to each phantom unit award is recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period. The grant date fair values of these awards are determined based on the closing price of Antero Midstream's common units on the date of grant.

A summary of phantom unit awards activity for the nine months ended September 30, 2017 is as follows:

	Number of units	Weighted average grant date fair value	Aggregate intrinsic value (in thousands)
Total awarded and unvested—December 31, 2016	1,331,961	$ 27.31	$ 41,131
Granted	377,660	$ 32.52	
Vested	(73,080)	$ 21.34	
Forfeited	(78,584)	$ 28.76	
Total awarded and unvested—September 30, 2017	1,557,957	$ 28.78	$ 49,122

Intrinsic values are based on the closing price of Antero Midstream's common units on the referenced dates. As of September 30, 2017, there was $30.4 million of unamortized equity-based compensation expense related to unvested phantom unit awards. That expense is expected to be recognized over a weighted average period of approximately 2.2 years.

(8) Financial Instruments

The carrying values of accounts receivable and accounts payable at December 31, 2016 and September 30, 2017 approximated market values because of their short-term nature. The carrying values of the amounts outstanding under the Prior Credit Facility and Prior Midstream Facility at December 31, 2016 and September 30, 2017 approximated fair value because the variable interest rates are reflective of current market conditions.

Based on Level 2 market data inputs, the fair value of Antero's senior notes was approximately $3.5 billion at December 31, 2016 and September 30, 2017. Based on Level 2 market data inputs, the fair value of Antero Midstream's senior notes was approximately $657 million at December 31, 2016 and $676 million at September 30, 2017.

See Note 9 for information regarding the fair value of derivative financial instruments.

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

(9) Derivative Instruments

(a) Commodity Derivative Positions

The Company periodically enters into natural gas, NGLs, and oil derivative contracts with counterparties to hedge the price risk associated with its production. These derivatives are entered into for trading purposes. To the extent that changes occur in the market prices of natural gas, NGLs, and oil, the Company is exposed to market risk on these open contracts. This market risk exposure is generally offset by the change in market prices of natural gas, NGLs, and oil recognized upon the ultimate sale of the Company's production.

The Company was party to various fixed price commodity swap contracts that settled during the nine months ended September 30, 2016 and 2017. The Company enters into these swap contracts when management believes that favorable future sales prices for the Company's production can be secured. Under these swap agreements, when actual commodity prices upon settlement exceed the fixed price provided by the swap contracts, the Company pays the difference to the counterparty. When actual commodity prices upon settlement are less than the contractually provided fixed price, the Company receives the difference from the counterparty. In addition to fixed price swap contracts, the Company has entered into basis swap contracts in order to hedge the difference between the New York Mercantile Exchange ("NYMEX") index price and a local index price at which the Company sells a portion of its natural gas production.

The Company's derivative swap contracts have not been designated as hedges for accounting purposes; therefore, all gains and losses are recognized in the Company's statements of operations.

As of September 30, 2017, the Company's fixed price natural gas, NGLs, and oil swap positions from October 1, 2017 through December 31, 2023 were as follows (abbreviations in the table refer to the index to which the swap position is tied, as follows: NYMEX=Henry Hub; CGTLA=Columbia Gas Louisiana Onshore; CCG=Chicago City Gate; Mont Belvieu-Ethane=Mont Belvieu Purity Ethane; Mont Belvieu-Propane=Mont Belvieu Propane; NYMEX-WTI=West Texas Intermediate):

	Natural gas MMbtu/day	Oil Bbls/day	Natural Gas Liquids Bbls/day	Weighted average index price
Three months ending December 31, 2017:				
NYMEX ($/MMBtu)	1,370,000	—	—	$ 3.46
CGTLA ($/MMBtu)	420,000	—	—	$ 4.37
CCG ($/MMBtu)	70,000	—	—	$ 4.68
NYMEX-WTI ($/Bbl)	—	3,000	—	$ 54.75
Mont Belvieu-Ethane ($/Gallon)	—	—	20,000	$ 0.25
Mont Belvieu-Propane ($/Gallon)	—	—	27,500	$ 0.40
Total	1,860,000	3,000	47,500	
Year ending December 31, 2018:				
NYMEX ($/MMBtu)	2,002,500	—	—	$ 3.50
NYMEX-WTI ($/Bbl)	—	1,000	—	$ 49.96
Mont Belvieu-Propane ($/Gallon)	—	—	3,000	$ 0.67
Total	2,002,500	1,000	3,000	
Year ending December 31, 2019:				
NYMEX ($/MMBtu)	2,330,000			$ 3.50
Year ending December 31, 2020:				
NYMEX ($/MMBtu)	1,417,500			$ 3.25
Year ending December 31, 2021:				
NYMEX ($/MMBtu)	710,000			$ 3.00
Year ending December 31, 2022:				
NYMEX ($/MMBtu)	850,000			$ 3.00
Year ending December 31, 2023:				
NYMEX ($/MMBtu)	90,000			$ 2.91

As of September 30, 2017, the Company's natural gas basis swap positions, which settle on the pricing index to basis differential of TCO to the NYMEX Henry Hub natural gas price, were as follows:

	Natural gas MMbtu/day	Hedged Differential ($/MMBtu)
Three months ending December 31, 2017:	125,000	$ (0.51)

As of September 30, 2017, the Company's natural gas basis swap positions, which settle on the pricing index to basis differential of NYMEX Henry Hub to the TCO natural gas price, were as follows:

	Natural gas MMbtu/day	Hedged Differential ($/MMBtu)
Three months ending December 31, 2017:	125,000	$ 0.39

(b) Commodity Derivative Fair Values

The following table presents a summary of the fair values of the Company's derivative instruments and where such values are recorded in the consolidated balance sheets as of December 31, 2016 and September 30, 2017. None of the Company's derivative instruments are designated as hedges for accounting purposes.

	December 31, 2016		September 30, 2017	
	Balance sheet location	Fair value	Balance sheet location	Fair value
		(In thousands)		(In thousands)
Asset derivatives not designated as hedges for accounting purposes:				
Commodity contracts	Current assets	$ 73,022	Current assets	299,796
Commodity contracts	Long-term assets	1,731,063	Long-term assets	876,293
Total asset derivatives		1,804,085		1,176,089
Liability derivatives not designated as hedges for accounting purposes:				
Commodity contracts	Current liabilities	203,635	Current liabilities	4,285
Commodity contracts	Long-term liabilities	234	Long-term liabilities	427
Total liability derivatives		203,869		4,712
Net derivatives		$ 1,600,216		1,171,377

The following table presents the gross values of recognized derivative assets and liabilities, the amounts offset under master netting arrangements with counterparties, and the resulting net amounts presented in the consolidated balance sheets as of the dates presented, all at fair value (in thousands):

	December 31, 2016			September 30, 2017		
	Gross amounts on balance sheet	Gross amounts offset on balance sheet	Net amounts of assets on balance sheet	Gross amounts on balance sheet	Gross amounts offset on balance sheet	Net amounts of assets (liabilities) on balance sheet
Commodity derivative assets	$ 1,914,245	(110,160)	1,804,085	$1,326,727	(150,638)	1,176,089
Commodity derivative liabilities	$ (324,667)	120,798	(203,869)	$ (4,823)	111	(4,712)

The following is a summary of derivative fair value gains and where such values are recorded in the condensed consolidated statements of operations for the three and nine months ended September 30, 2016 and 2017 (in thousands):

	Statement of operations location	Three months ended September 30,		Nine months ended September 30,	
		2016	2017	2016	2017
Commodity derivative fair value gains (losses)	Revenue	$ 530,334	(65,957)	$ 125,624	458,459

Commodity derivative fair value gains (losses) for the three and nine months ended September 30, 2017 include gains of $750 million related to certain natural gas derivatives that were monetized prior to their settlement dates. Proceeds received from the monetizations are classified as operating cash flows on the Company's condensed consolidated statement of cash flows for the nine months ended September 30, 2017. The monetizations were effected by reducing the average fixed index prices on certain natural gas swap contracts maturing from 2018 through 2022 while maintaining the total volumes hedged. The Company's commodity derivative position presented in note 9(a) reflects the adjusted fixed price indices after the monetization. Proceeds from the monetization were used to pay down amounts outstanding under the Prior Credit Facility.

The fair value of commodity derivative instruments was determined using Level 2 inputs.

(10) Contingencies

SJGC

The Company is the plaintiff in a lawsuit against South Jersey Gas Company and South Jersey Resources Group, LLC (collectively, "SJGC") pending in United States District Court in Colorado. In March 2015, the Company filed suit against SJGC seeking relief for breach of contract and damages in the amounts that SJGC had short paid, and continued to short pay, the Company in connection with two nearly identical long term gas contracts. Under those contracts, SJGC are long term purchasers of 80,000 MMBtu/day of the Company's natural gas production. Deliveries under the contracts began in October 2011 and the term of the contracts continues through October 2019. The price for gas was based on specified indices in the contracts. Beginning in October 2014, SJGC began short paying the Company based on price indices unilaterally selected by SJGC and not the applicable index specified in the contracts. SJGC claimed that the index price specified in the contracts, and the index at which SJGC paid for deliveries from 2011 through September 2014, was no longer appropriate under the contracts because a market disruption event (as defined by the contract) had occurred and, as a result, a new index price was required to be determined by the parties. The Company rejected SJGC's contention that a market disruption event occurred. SJGC's actions constituted a breach of the contracts by failing to pay the Company based on the express price terms of the contracts and paying the Company based on unilaterally selected price indices in violation of the contracts' remedial provisions. On May 8, 2017, a jury in the United States District Court in Colorado returned a unanimous verdict finding in favor of Antero's positions in the lawsuit against SJGC. On July 21, 2017, final judgment on the jury's unanimous verdict was entered by the court. On August 18, 2017, SJGC filed post-judgment motions with the court, which are currently pending. If the court denies those motions, SJGC will have 30 days from the court's decision on these post-judgment motions to file an appeal. SJGC continues to short pay the Company based on indexes unilaterally selected by SJGC and not the index specified in the contract. Through September 30, 2017, the Company estimates that it is owed approximately $70 million (gross damages, including interest) more than SJGC has paid using the indices unilaterally selected by them. Substantially all of this amount has not been accrued in the Company's financial statements. The Company will vigorously seek recovery from SJGC of all underpayments and damages, including interest, based on the contracted price.

WGL

The Company and Washington Gas Light Company and WGL Midstream, Inc. (collectively, "WGL") were involved in a pricing dispute involving firm gas sales contracts executed June 20, 2014 (the "Contracts") that the Company began delivering gas under in January 2016. From January 2016 through July 2017, the aggregate daily gas volumes contracted for under the Contracts was 500,000 MMBtu/day, with the aggregate daily contracted volumes having increased to 600,000 MMBtu/day during the months of August and September 2017. The Company invoiced WGL based on the natural gas index price specified in the Contracts and WGL paid the Company based on that invoice price. However, WGL asserted that the index price was no longer appropriate under the Contracts and claimed that an undefined alternative index was more appropriate for the delivery point of the gas. In July 2016, the matter was referred to arbitration by the Colorado district court. In January 2017, after hearing a week of testimony and evidence, the arbitration panel ruled in the Company's favor. As a result, the index price has remained as specified in the Contracts and there will be no

adjustments to the invoices that have been paid by WGL, nor will future invoices to WGL be adjusted based on the same claim rejected by the arbitration panel. The arbitration panel's award was confirmed by the Colorado district court on April 14, 2017.

In March of 2017, WGL filed a second lawsuit against the Company in Colorado district court alleging breach of contract and seeking damages of more than $30 million. In this lawsuit, WGL claimed that the Company breached its contractual obligations under the Contracts by failing to deliver "TCO pool" gas. In subsequent filings, WGL explained that its claims were based on an alleged obligation that the Company must deliver gas to the Columbia IPP Pool ("IPP Pool"). WGL asserted this exact same claim in the arbitration and it was rejected by the arbitration panel. The arbitration panel specifically found that the Delivery Point under the Contracts was at a specific point in Braxton, West Virginia, not the IPP Pool. On August 24, 2017, the Colorado district court dismissed with prejudice WGL's claims against the Company in its second lawsuit and found that the Company had not breached its Contracts with WGL by allegedly failing to deliver to the IPP Pool. The Court also reaffirmed the arbitration panel's finding that the delivery point under the Contracts was not the IPP Pool. WGL has appealed this decision to the Colorado Court of Appeals decision and that appeal remains pending.

The Company is also actively engaged in pursuing cover damages against WGL based on WGL's failure to take receipt of all of the agreed quantities of gas required under the Contracts. WGL's failure to take the gas volumes specified in the Contracts is directly related to WGL's lack of primary firm transportation rights at the Delivery Point. The failures by WGL to take the gas began in April 2017 and have continued each month since in varying quantities. In defense of its conduct, WGL has asserted to the Company that their failure to receive gas is excused by (1) the Company's failure to deliver gas to the IPP Pool or (2) alleged instances of Force Majeure under the Contracts. However, as stated above, the alleged obligation that the Company must deliver gas to the IPP Pool was rejected by the arbitration panel and the Colorado district court. Further, the Contracts expressly prohibit a Force Majeure claim in circumstances in which the gas purchaser does not have primary firm transportation agreements in place to transport the purchased gas. In each instance that WGL has failed to receive the quantity of gas required under the Contracts, the Company has resold the quantities not taken and invoiced WGL for cover damages pursuant to the terms of the Contracts. WGL has refused to pay for the invoiced cover damages as required by the Contracts and has also short paid the Company for certain amounts of gas received by WGL. Through September 30, 2017, these damages amounted to approximately $65 million (gross damages, including interest). This amount has not been accrued in the Company's financial statements. The Company is currently pursuing its cover damages in a lawsuit filed in Colorado district court on October 24, 2017. WGL's failure to take receipt of all quantities of gas and resulting cover damages remains ongoing. The Company will continue to vigorously seek recovery of its cover damages and other unpaid amounts, including interest, as part of its claims against WGL.

Other

The Company is party to various other legal proceedings and claims in the ordinary course of its business. The Company believes that certain of these matters will be covered by insurance and that the outcome of other matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or cash flows.

(11) Segment Information

See Note 2(f) for a description of the Company's determination of its reportable segments. Revenues from gathering and processing and water handling and treatment operations are primarily derived from intersegment transactions for services provided to the Company's exploration and production operations. Marketing revenues are primarily derived from activities to purchase and sell third-party natural gas and NGLs and to market excess firm transportation capacity to third parties.

Operating segments are evaluated based on their contribution to consolidated results, which is primarily determined by the respective operating income of each segment. General and administrative expenses are allocated to the gathering and processing and water handling and treatment segments based on the nature of the expenses and on a combination of the segments' proportionate share of the Company's consolidated property and equipment, capital expenditures, and labor costs, as applicable. General and administrative expenses related to the marketing segment are not allocated because they are immaterial. Other income, income taxes, and interest expense are primarily managed and evaluated on a consolidated basis. Intersegment sales are transacted at prices which approximate market. Accounting policies for each segment are the same as the Company's accounting policies described in Note 2 to the condensed consolidated financial statements.

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December 31, 2016 and September 30, 2017

The operating results and assets of the Company's reportable segments were as follows for the three months ended September 30, 2016 and 2017 (in thousands):

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2016:						
Sales and revenues:						
Third-party	$ 1,016,458	2,745	224	97,076	—	1,116,503
Intersegment	3,990	75,319	72,187	—	(151,496)	—
Total	$ 1,020,448	78,064	72,411	97,076	(151,496)	1,116,503
Operating expenses:						
Lease operating	$ 13,710	—	28,978	—	(28,834)	13,854
Gathering, compression, processing, and transportation	303,753	6,400	—	—	(75,238)	234,915
Depletion, depreciation, and amortization	172,735	18,540	7,838	—	—	199,113
General and administrative	44,637	10,282	3,033	—	(375)	57,577
Other	31,266	(1,708)	3,070	114,611	(3,527)	143,712
Total	566,101	33,514	42,919	114,611	(107,974)	649,171
Operating income (loss)	$ 454,347	44,550	29,492	(17,535)	(43,522)	467,332
Equity in earnings of unconsolidated affiliates	$ —	1,543	—	—	—	1,543
Segment assets	$ 12,966,493	1,669,667	562,995	33,114	(603,016)	14,629,253
Capital expenditures for segment assets	$ 909,837	56,836	58,730	—	(43,343)	982,060

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2017:						
Sales and revenues:						
Third-party	$ 594,244	2,609	260	50,767	—	647,880
Intersegment	3,070	97,909	92,851	—	(193,830)	—
Total	$ 597,314	100,518	93,111	50,767	(193,830)	647,880
Operating expenses:						
Lease operating	$ 24,060	—	51,569	—	(52,138)	23,491
Gathering, compression, processing, and transportation	369,538	10,468	—	—	(97,872)	282,134
Depletion, depreciation, and amortization	176,188	22,027	8,753	—	—	206,968
General and administrative	48,289	9,336	4,980	—	(402)	62,203
Other	65,259	92	3,457	78,884	(2,556)	145,136
Total	683,334	41,923	68,759	78,884	(152,968)	719,932
Operating income (loss)	$ (86,020)	58,595	24,352	(28,117)	(40,862)	(72,052)
Equity in earnings of unconsolidated affiliates	$ —	7,033	—	—	—	7,033
Segment assets	$ 12,751,606	2,158,107	752,982	15,807	(829,288)	14,849,214
Capital expenditures for segment assets	$ 415,088	99,254	48,019	—	(40,704)	521,657

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Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

The operating results and assets of the Company's reportable segments were as follows for the nine months ended September 30, 2016 and 2017 (in thousands):

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2016:						
Sales and revenues:						
Third-party	$ 1,291,008	9,463	644	287,194	—	1,588,309
Intersegment	11,714	210,144	203,106	—	(424,964)	—
Total	$ 1,302,722	219,607	203,750	287,194	(424,964)	1,588,309
Operating expenses:						
Lease operating	$ 37,299	—	104,009	—	(104,118)	37,190
Gathering, compression, processing, and transportation	838,936	20,567	—	—	(209,790)	649,713
Depletion, depreciation, and amortization	513,302	52,780	21,975	—	—	588,057
General and administrative	135,356	29,755	9,957	—	(1,102)	173,966
Other	104,279	(809)	11,568	378,521	(10,384)	483,175
Total	1,629,172	102,293	147,509	378,521	(325,394)	1,932,101
Operating income (loss)	$ (326,450)	117,314	56,241	(91,327)	(99,570)	(343,792)
Equity in earnings of unconsolidated affiliates	$ —	2,027	—	—	—	2,027
Segment assets	$ 12,966,493	1,669,667	562,995	33,114	(603,016)	14,629,253
Capital expenditures for segment assets	$ 1,734,914	154,136	137,355	—	(98,955)	1,927,450

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2017:						
Sales and revenues:						
Third-party	$ 2,458,524	7,472	1,193	166,659	—	2,633,848
Intersegment	11,421	283,467	270,033	—	(564,921)	—
Total	$ 2,469,945	290,939	271,226	166,659	(564,921)	2,633,848
Operating expenses:						
Lease operating	$ 56,991	—	131,635	—	(132,592)	56,034
Gathering, compression, processing, and transportation	1,070,522	28,492	—	—	(283,304)	815,710
Depletion, depreciation, and amortization	521,603	64,445	24,831	—	—	610,879
General and administrative	148,876	30,179	13,383	—	(1,438)	191,000
Other	158,128	104	12,333	246,298	(9,672)	407,191
Total	1,956,120	123,220	182,182	246,298	(427,006)	2,080,814
Operating income (loss)	$ 513,825	167,719	89,044	(79,639)	(137,915)	553,034
Equity in earnings of unconsolidated affiliates	$ —	12,887	—	—	—	12,887
Segment assets	$ 12,751,606	2,158,107	752,982	15,807	(829,288)	14,849,214
Capital expenditures for segment assets	$ 1,456,870	254,619	143,470	—	(137,420)	1,717,539

(12) Subsidiary Guarantors

Each of Antero's wholly-owned subsidiaries has fully and unconditionally guaranteed Antero's senior notes. Antero Midstream and its subsidiaries have been designated as unrestricted subsidiaries under the Credit Facility and the indentures governing Antero's senior notes, and do not guarantee any of Antero's obligations (see Note 5). In the event a subsidiary guarantor is sold or disposed of (whether by merger, consolidation, the sale of a sufficient amount of its capital stock so that it no longer qualifies as a "Subsidiary" of the Company (as defined in the indentures governing the notes) or the sale of all or substantially all of its assets (other than by lease))

and whether or not the subsidiary guarantor is the surviving entity in such transaction to a person which is not Antero or a restricted subsidiary of Antero, such subsidiary guarantor will be released from its obligations under its subsidiary guarantee if the sale or other disposition does not violate the covenants set forth in the indentures governing the notes.

In addition, a subsidiary guarantor will be released from its obligations under the indentures and its guarantee, upon the release or discharge of the guarantee of other Indebtedness (as defined in the indentures governing the notes) that resulted in the creation of such guarantee, except a release or discharge by or as a result of payment under such guarantee; if Antero designates such subsidiary as an unrestricted subsidiary and such designation complies with the other applicable provisions of the indentures governing the notes or in connection with any covenant defeasance, legal defeasance or satisfaction and discharge of the notes.

The following Condensed Consolidating Balance Sheets at December 31, 2016 and September 30, 2017, and the related Condensed Consolidating Statements of Operations and Comprehensive Income (Loss) for the three and nine months ended September 30, 2016 and 2017 and Condensed Consolidating Statements of Cash Flows for the nine months ended September 30, 2016 and 2017 present financial information for Antero on a stand-alone basis (carrying its investment in subsidiaries using the equity method), financial information for the subsidiary guarantors, financial information for the non-guarantor subsidiaries, and the consolidation and elimination entries necessary to arrive at the information for the Company on a consolidated basis. Antero's wholly-owned subsidiaries are not restricted from making distributions to the Parent.

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Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Balance Sheet
December 31, 2016
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Cash and cash equivalents	$ 17,568	—	14,042	—	31,610
Accounts receivable, net	28,442	—	1,240	—	29,682
Intercompany receivables	3,193	—	64,139	(67,332)	—
Accrued revenue	261,960	—	—	—	261,960
Derivative instruments	73,022	—	—	—	73,022
Other current assets	5,784	—	529	—	6,313
Total current assets	389,969	—	79,950	(67,332)	402,587
Property and equipment:					
Natural gas properties, at cost (successful efforts method):					
Unproved properties	2,331,173	—	—	—	2,331,173
Proved properties	9,726,957	—	—	(177,286)	9,549,671
Water handling and treatment systems	—	—	744,682	—	744,682
Gathering systems and facilities	17,929	—	1,705,839	—	1,723,768
Other property and equipment	41,231	—	—	—	41,231
	12,117,290	—	2,450,521	(177,286)	14,390,525
Less accumulated depletion, depreciation, and amortization	(2,109,136)	—	(254,642)	—	(2,363,778)
Property and equipment, net	10,008,154	—	2,195,879	(177,286)	12,026,747
Derivative instruments	1,731,063	—	—	—	1,731,063
Investments in subsidiaries	(420,429)	—	—	420,429	—
Contingent acquisition consideration	194,538	—	—	(194,538)	—
Investments in unconsolidated affiliates	—	—	68,299	—	68,299
Other assets, net	21,087	—	5,767	—	26,854
Total assets	$ 11,924,382	—	2,349,895	(18,727)	14,255,550
Liabilities and Equity					
Current liabilities:					
Accounts payable	$ 21,648	—	16,979	—	38,627
Intercompany payable	64,139	—	3,193	(67,332)	—
Accrued liabilities	332,162	—	61,641	—	393,803
Revenue distributions payable	163,989	—	—	—	163,989
Derivative instruments	203,635	—	—	—	203,635
Other current liabilities	17,134	—	200	—	17,334
Total current liabilities	802,707	—	82,013	(67,332)	817,388
Long-term liabilities:					
Long-term debt	3,854,059	—	849,914	—	4,703,973
Deferred income tax liability	950,217	—	—	—	950,217
Contingent acquisition consideration	—	—	194,538	(194,538)	—
Derivative instruments	234	—	—	—	234
Other liabilities	54,540	—	620	—	55,160
Total liabilities	5,661,757	—	1,127,085	(261,870)	6,526,972
Equity:					
Stockholders' equity:					
Partners' capital	—	—	1,222,810	(1,222,810)	—
Common stock	3,149	—	—	—	3,149
Additional paid-in capital	5,299,481	—	—	—	5,299,481
Accumulated earnings	959,995	—	—	—	959,995
Total stockholders' equity	6,262,625	—	1,222,810	(1,222,810)	6,262,625
Noncontrolling interest in consolidated subsidiary	—	—	—	1,465,953	1,465,953
Total equity	6,262,625	—	1,222,810	243,143	7,728,578
Total liabilities and equity	$ 11,924,382	—	2,349,895	(18,727)	14,255,550

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Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Balance Sheet
September 30, 2017
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Cash and cash equivalents	$ 21,199	—	2,495	—	23,694
Accounts receivable, net	42,689	—	1,165	—	43,854
Intercompany receivables	4,050	—	84,124	(88,174)	—
Accrued revenue	233,585	—	—	—	233,585
Derivative instruments	299,796	—	—	—	299,796
Other current assets	9,011	—	1,013	—	10,024
Total current assets	610,330	—	88,797	(88,174)	610,953
Property and equipment:					
Natural gas properties, at cost (successful efforts method):					
Unproved properties	2,305,749	—	—	—	2,305,749
Proved properties	11,093,749	—	—	(314,706)	10,779,043
Water handling and treatment systems	—	—	891,869	—	891,869
Gathering systems and facilities	17,929	—	1,959,581	—	1,977,510
Other property and equipment	54,571	—	—	—	54,571
	13,471,998	—	2,851,450	(314,706)	16,008,742
Less accumulated depletion, depreciation, and amortization	(2,630,298)	—	(343,246)	—	(2,973,544)
Property and equipment, net	10,841,700	—	2,508,204	(314,706)	13,035,198
Derivative instruments	876,293	—	—	—	876,293
Investments in subsidiaries	488,089	—	—	(488,089)	—
Contingent acquisition consideration	204,210	—	—	(204,210)	—
Investments in unconsolidated affiliates	—	—	287,842	—	287,842
Other assets, net	28,380	—	10,548	—	38,928
Total assets	$ 13,049,002	—	2,895,391	(1,095,179)	14,849,214
Liabilities and Equity					
Current liabilities:					
Accounts payable	$ 33,637	—	13,820	—	47,457
Intercompany payable	84,124	—	4,050	(88,174)	—
Accrued liabilities	359,164	—	70,532	—	429,696
Revenue distributions payable	220,971	—	—	—	220,971
Derivative instruments	4,285	—	—	—	4,285
Other current liabilities	15,061	—	206	—	15,267
Total current liabilities	717,242	—	88,608	(88,174)	717,676
Long-term liabilities:					
Long-term debt	3,442,799	—	1,067,722	—	4,510,521
Deferred income tax liability	1,180,564	—	—	—	1,180,564
Contingent acquisition consideration	—	—	204,210	(204,210)	—
Derivative instruments	427	—	—	—	427
Other liabilities	52,299	—	465	—	52,764
Total liabilities	5,393,331	—	1,361,005	(292,384)	6,461,952
Equity:					
Stockholders' equity:					
Partners' capital	—	—	1,534,386	(1,534,386)	—
Common stock	3,155	—	—	—	3,155
Additional paid-in capital	6,564,320	—	—	—	6,564,320
Accumulated earnings	1,088,196	—	—	—	1,088,196
Total stockholders' equity	7,655,671	—	1,534,386	(1,534,386)	7,655,671
Noncontrolling interests in consolidated subsidiary	—	—	—	731,591	731,591
Total equity	7,655,671	—	1,534,386	(802,795)	8,387,262
Total liabilities and equity	$ 13,049,002	—	2,895,391	(1,095,179)	14,849,214

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Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Three Months Ended September 30, 2016
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue:					
Natural gas sales	$ 364,373	—	—	—	364,373
Natural gas liquids sales	106,958	—	—	—	106,958
Oil sales	14,793	—	—	—	14,793
Gathering, compression, water handling and treatment	—	—	150,475	(147,506)	2,969
Marketing	97,076	—	—	—	97,076
Commodity derivative fair value gains	530,334	—	—	—	530,334
Other income	3,990	—	—	(3,990)	—
Total revenue	1,117,524	—	150,475	(151,496)	1,116,503
Operating expenses:					
Lease operating	13,710	—	28,978	(28,834)	13,854
Gathering, compression, processing, and transportation	303,753	—	6,400	(75,238)	234,915
Production and ad valorem taxes	17,719	—	(2,165)	—	15,554
Marketing	114,611	—	—	—	114,611
Exploration	1,166	—	—	—	1,166
Impairment of unproved properties	11,753	—	—	—	11,753
Depletion, depreciation, and amortization	172,976	—	26,137	—	199,113
Accretion of asset retirement obligations	628	—	—	—	628
General and administrative	44,637	—	13,315	(375)	57,577
Accretion of contingent acquisition consideration	—	—	3,527	(3,527)	—
Total operating expenses	680,953	—	76,192	(107,974)	649,171
Operating income	436,571	—	74,283	(43,522)	467,332
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	1,543	—	1,543
Interest	(54,631)	—	(5,303)	179	(59,755)
Equity in net income of subsidiaries	(2,761)	—	—	2,761	—
Total other expenses	(57,392)	—	(3,760)	2,940	(58,212)
Income before income taxes	379,179	—	70,523	(40,582)	409,120
Provision for income tax expense	(140,924)	—	—	—	(140,924)
Net income and comprehensive income including noncontrolling interests	238,255	—	70,523	(40,582)	268,196
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	29,941	29,941
Net income and comprehensive income attributable to Antero Resources Corporation	$ 238,255	—	70,523	(70,523)	238,255

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Three Months Ended September 30, 2017
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue:					
Natural gas sales	$ 409,141	—	—	—	409,141
Natural gas liquids sales	224,533	—	—	—	224,533
Oil sales	26,527	—	—	—	26,527
Gathering, compression, water handling and treatment	—	—	193,629	(190,760)	2,869
Marketing	50,767	—	—	—	50,767
Commodity derivative fair value losses	(65,957)	—	—	—	(65,957)
Other income	3,070	—	—	(3,070)	—
Total revenue	648,081	—	193,629	(193,830)	647,880
Operating expenses:					
Lease operating	24,060	—	51,569	(52,138)	23,491
Gathering, compression, processing, and transportation	369,538	—	10,468	(97,872)	282,134
Production and ad valorem taxes	22,002	—	993	—	22,995
Marketing	78,884	—	—	—	78,884
Exploration	1,599	—	—	—	1,599
Impairment of unproved properties	41,000	—	—	—	41,000
Depletion, depreciation, and amortization	176,412	—	30,556	—	206,968
Accretion of asset retirement obligations	658	—	—	—	658
General and administrative	48,289	—	14,316	(402)	62,203
Accretion of contingent acquisition consideration	—	—	2,556	(2,556)	—
Total operating expenses	762,442	—	110,458	(152,968)	719,932
Operating income (loss)	(114,361)	—	83,171	(40,862)	(72,052)
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	7,033	—	7,033
Interest	(60,906)	—	(9,311)	158	(70,059)
Equity in net income (loss) of subsidiaries	(4,874)	—	—	4,874	—
Total other expenses	(65,780)	—	(2,278)	5,032	(63,026)
Income (loss) before income taxes	(180,141)	—	80,893	(35,830)	(135,078)
Provision for income tax benefit	45,078	—	—	—	45,078
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(135,063)	—	80,893	(35,830)	(90,000)
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	45,063	45,063
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (135,063)	—	80,893	(80,893)	(135,063)

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Nine Months Ended September 30, 2016
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 848,936	—	—	—	848,936
Natural gas liquids sales	274,736	—	—	—	274,736
Oil sales	41,712	—	—	—	41,712
Gathering, compression, water handling and treatment	—	—	423,357	(413,250)	10,107
Marketing	287,194	—	—	—	287,194
Commodity derivative fair value gains	125,624	—	—	—	125,624
Other income	11,714	—	—	(11,714)	—
Total revenue and other	1,589,916	—	423,357	(424,964)	1,588,309
Operating expenses:					
Lease operating	37,299	—	104,009	(104,118)	37,190
Gathering, compression, processing, and transportation	838,936	—	20,567	(209,790)	649,713
Production and ad valorem taxes	51,921	—	375	—	52,296
Marketing	378,521	—	—	—	378,521
Exploration	3,289	—	—	—	3,289
Impairment of unproved properties	47,223	—	—	—	47,223
Depletion, depreciation, and amortization	513,957	—	74,100	—	588,057
Accretion of asset retirement obligations	1,846	—	—	—	1,846
General and administrative	135,356	—	39,712	(1,102)	173,966
Accretion of contingent acquisition consideration	—	—	10,384	(10,384)	—
Total operating expenses	2,008,348	—	249,147	(325,394)	1,932,101
Operating income (loss)	(418,432)	—	174,210	(99,570)	(343,792)
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	2,027	—	2,027
Interest	(173,364)	—	(12,885)	615	(185,634)
Equity in net income of subsidiaries	(2,003)	—	—	2,003	—
Total other expenses	(175,367)	—	(10,858)	2,618	(183,607)
Income (loss) before income taxes	(593,799)	—	163,352	(96,952)	(527,399)
Provision for income tax benefit	230,755	—	—	—	230,755
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(363,044)	—	163,352	(96,952)	(296,644)
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	66,400	66,400
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (363,044)	—	163,352	(163,352)	(363,044)

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Operations and Comprehensive Income
Nine Months Ended September 30, 2017
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 1,330,062	—	—	—	1,330,062
Natural gas liquids sales	590,004	—	—	—	590,004
Oil sales	79,999	—	—	—	79,999
Gathering, compression, water handling and treatment	—	—	562,165	(553,500)	8,665
Marketing	166,659	—	—	—	166,659
Commodity derivative fair value gains	458,459	—	—	—	458,459
Other income	11,421	—	—	(11,421)	—
Total revenue and other	2,636,604	—	562,165	(564,921)	2,633,848
Operating expenses:					
Lease operating	56,991	—	131,635	(132,592)	56,034
Gathering, compression, processing, and transportation	1,070,522	—	28,492	(283,304)	815,710
Production and ad valorem taxes	67,576	—	2,765	—	70,341
Marketing	246,298	—	—	—	246,298
Exploration	5,510	—	—	—	5,510
Impairment of unproved properties	83,098	—	—	—	83,098
Depletion, depreciation, and amortization	522,275	—	88,604	—	610,879
Accretion of asset retirement obligations	1,944	—	—	—	1,944
General and administrative	148,876	—	43,562	(1,438)	191,000
Accretion of contingent acquisition consideration	—	—	9,672	(9,672)	—
Total operating expenses	2,203,090	—	304,730	(427,006)	2,080,814
Operating income	433,514	—	257,435	(137,915)	553,034
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	12,887	—	12,887
Interest	(178,644)	—	(27,162)	495	(205,311)
Equity in net income of subsidiaries	(21,582)	—	—	21,582	—
Total other expenses	(200,226)	—	(14,275)	22,077	(192,424)
Income before income taxes	233,288	—	243,160	(115,838)	360,610
Provision for income tax expense	(105,087)	—	—	—	(105,087)
Net income and comprehensive income including noncontrolling interests	128,201	—	243,160	(115,838)	255,523
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	127,322	127,322
Net income and comprehensive income attributable to Antero Resources Corporation	$ 128,201	—	243,160	(243,160)	128,201

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Cash Flows
Nine Months Ended September 30, 2016
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by operating activities	$ 745,517	—	259,135	(98,955)	905,697
Cash flows used in investing activities:					
Additions to proved properties	(64,789)	—	—	—	(64,789)
Additions to unproved properties	(559,572)	—	—	—	(559,572)
Drilling and completion costs	(1,108,806)	—	—	98,955	(1,009,851)
Additions to water handling and treatment systems	—	—	(137,355)	—	(137,355)
Additions to gathering systems and facilities	(1,367)	—	(152,769)	—	(154,136)
Additions to other property and equipment	(1,747)	—	—	—	(1,747)
Investments in unconsolidated affiliates	—	—	(45,044)	—	(45,044)
Change in other assets	236	—	(2,409)	—	(2,173)
Distributions from non-guarantor subsidiary	78,514	—	—	(78,514)	—
Net cash used in investing activities	(1,657,531)	—	(337,577)	20,441	(1,974,667)
Cash flows provided by financing activities:					
Issuance of common stock	837,414	—	—	—	837,414
Issuance of common units by Antero Midstream Partners LP	—	—	19,605	—	19,605
Sale of common units in Antero Midstream Partners LP by Antero Resources Corporation	178,000	—	—	—	178,000
Issuance of senior notes	—	—	650,000	—	650,000
Repayments on bank credit facility, net	(102,000)	—	(450,000)	—	(552,000)
Payments of deferred financing costs	(89)	—	(8,940)	—	(9,029)
Distributions	—	—	(129,752)	78,514	(51,238)
Employee tax withholding for settlement of equity compensation awards	(4,859)	—	(17)	—	(4,876)
Other	(3,751)	—	(116)	—	(3,867)
Net cash provided by financing activities	904,715	—	80,780	78,514	1,064,009
Net increase (decrease) in cash and cash equivalents	(7,299)	—	2,338	—	(4,961)
Cash and cash equivalents, beginning of period	16,590	—	6,883	—	23,473
Cash and cash equivalents, end of period	$ 9,291	—	9,221	—	18,512

ANTERO RESOURCES CORPORATION

Notes to Condensed Consolidated Financial Statements

December 31, 2016 and September 30, 2017

Condensed Consolidating Statement of Cash Flows
Nine Months Ended September 30, 2017
(In thousands)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by operating activities	$ 1,485,961	—	344,267	(137,420)	1,692,808
Cash flows used in investing activities:					
Additions to proved properties	(179,318)	—	—	—	(179,318)
Additions to unproved properties	(182,207)	—	—	—	(182,207)
Drilling and completion costs	(1,083,928)	—	—	137,420	(946,508)
Additions to water handling and treatment systems	—	—	(143,470)	—	(143,470)
Additions to gathering systems and facilities	—	—	(254,619)	—	(254,619)
Additions to other property and equipment	(11,417)	—	—	—	(11,417)
Investments in unconsolidated affiliates	—	—	(216,776)	—	(216,776)
Change in other assets	(10,271)	—	(5,877)	—	(16,148)
Net distributions from subsidiaries	97,984	—	—	(97,984)	—
Other	2,156	—	—	—	2,156
Net cash used in investing activities	(1,367,001)	—	(620,742)	39,436	(1,948,307)
Cash flows provided by (used in) financing activities:					
Issuance of common units by Antero Midstream Partners LP	—	—	248,949	—	248,949
Sale of common units in Antero Midstream Partners LP by Antero Resources Corporation	311,100	—	—	—	311,100
Borrowings (repayments) on bank credit facility, net	(415,000)	—	217,000	—	(198,000)
Distributions	—	—	(200,037)	97,984	(102,053)
Employee tax withholding for settlement of equity compensation awards	(7,568)	—	(932)	—	(8,500)
Other	(3,861)	—	(52)	—	(3,913)
Net cash provided by (used in) financing activities	(115,329)	—	264,928	97,984	247,583
Net increase (decrease) in cash and cash equivalents	3,631	—	(11,547)	—	(7,916)
Cash and cash equivalents, beginning of period	17,568	—	14,042	—	31,610
Cash and cash equivalents, end of period	$ 21,199	—	2,495	—	23,694

(13) Commitments

The table below is a schedule of future minimum payments for firm transportation, drilling rig and completion services, processing, gathering and compression, and office and equipment agreements, as well as leases that have remaining lease terms in excess of one year as of September 30, 2017 (in millions).

	Firm transportation (a)	Processing, gathering and compression (b)	Drilling rigs and completion services (c)	Office and equipment (d)	Total
Remainder of 2017	$ 135	109	28	4	276
2018	886	401	80	13	1,380
2019	1,107	340	41	11	1,499
2020	1,127	337	—	9	1,473
2021	1,106	321	—	8	1,435
2022	1,053	317	—	8	1,378
Thereafter	9,635	1,502	—	17	11,154
Total	$ 15,049	3,327	149	70	18,595

(a) Firm Transportation

The Company has entered into firm transportation agreements with various pipelines in order to facilitate the delivery of its production to market. These contracts commit the Company to transport minimum daily natural gas or NGLs volumes at negotiated

rates, or pay for any deficiencies at specified reservation fee rates. The amounts in this table are based on the Company's minimum daily volumes at the reservation fee rate. The values in the table represent the gross amounts that the Company is committed to pay; however, the Company will record in the consolidated financial statements its proportionate share of costs based on its working interest.

(b) Processing, Gathering, and Compression Service Commitments

The Company has entered into various long-term gas processing agreements for certain of its production that will allow it to realize the value of its NGLs. The minimum payment obligations under the agreements are presented in the table.

The Company has various gathering and compression service agreements with third parties that provide for payments based on volumes gathered or compressed. The minimum payment obligations under these agreements are presented in the table.

The values in the table represent the gross amounts that the Company is committed to pay; however, the Company will record in the consolidated financial statements its proportionate share of costs based on its working interest. The values in the table also include minimum processing fees to be paid to the Joint Venture owned by Antero Midstream and MarkWest, and Antero Midstream's commitments for the construction of its advanced wastewater treatment complex. The table does not include intracompany commitments. Future capital contributions to unconsolidated affiliates are excluded from the table as neither the amounts nor the timing of the obligations can be determined in advance.

(c) Drilling Rig Service Commitments

The Company has obligations under agreements with service providers to procure drilling rigs and completion services. The values in the table represent the gross amounts that the Company is committed to pay; however, the Company will record in the consolidated financial statements its proportionate share of costs based on its working interest.

(d) Office and Equipment Leases

The Company leases various office space and equipment under capital and operating lease arrangements.

(14) Related Parties

Certain of the Company's shareholders, including members of its executive management group, own a significant interest in the Company and, either through their representatives or directly, serve as members of the Board of Directors of Antero and the Boards of Directors of the general partners of Antero Midstream and AMGP. These same groups or individuals own limited partner interests in Antero Midstream and common shares and other interests in AMGP, which indirectly owns the incentive distribution rights in Antero Midstream. Antero's executive management group also manages the operations and business affairs of Antero Midstream and AMGP.

Antero Midstream's operations comprise substantially all of the operations of our gathering and processing segment and our water handling and treatment segment. Substantially all of the revenues for those segments in the three and nine months ended September 30, 2016 and 2017 were derived from transactions with Antero. Please see Note 11 for the operating results of the Company's reportable segments.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and related notes included elsewhere in this report. The following discussion contains "forward-looking statements" that reflect our future plans, estimates, beliefs and expected performance. We caution that assumptions, expectations, projections, intentions, or beliefs about future events may, and often do, vary from actual results, and the differences can be material. Some of the key factors that could cause actual results to vary from our expectations include changes in natural gas, NGLs, and oil prices, the timing of planned capital expenditures, our ability to fund our development programs, availability of acquisitions, uncertainties in estimating proved reserves and forecasting production results, operational factors affecting the commencement or maintenance of producing wells, the condition of the capital markets generally, as well as our ability to access them, and uncertainties regarding environmental regulations or litigation and other legal or regulatory developments affecting our business, as well as those factors discussed below, all of which are difficult to predict. In light of these risks, uncertainties and assumptions, the forward-looking events discussed may not occur. See "Cautionary Statement Regarding Forward-Looking Statements." Also, see the risk factors and other cautionary statements described under the heading "Item 1A. Risk Factors." We do not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law. For more information, please refer to the Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on February 28, 2017, the Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 8, 2017, and the Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed with the SEC on August 2, 2017.

In this section, references to "Antero Resources," "the Company," "we," "us," and "our" refer to Antero Resources Corporation and its subsidiaries, unless otherwise indicated or the context otherwise requires.

Our Company

Antero Resources Corporation is an independent oil and natural gas company engaged in the exploration, development, and production of natural gas, NGLs, and oil properties located in the Appalachian Basin. We focus on unconventional reservoirs, which can generally be characterized as fractured shale formations. Our management team has worked together for many years and has a successful track record of reserve and production growth as well as significant expertise in unconventional resource plays. Our strategy is to leverage our team's experience delineating and developing natural gas resource plays to profitably grow our reserves and production, primarily on our existing multi-year inventory of drilling locations.

We have assembled a portfolio of long-lived properties that are characterized by what we believe to be low geologic risk and repeatability. Our drilling opportunities are focused in the Marcellus Shale and Utica Shale of the Appalachian Basin. As of September 30, 2017, we held approximately 630,000 net acres of rich gas and dry gas properties located in the Appalachian Basin in West Virginia and Ohio. Our corporate headquarters are in Denver, Colorado.

We operate in the following industry segments: (i) the exploration, development, and production of natural gas, NGLs, and oil; (ii) gathering and processing; (iii) water handling and treatment; and (iv) marketing of excess firm transportation capacity. All of our operations are conducted in the United States.

Address, Internet Website and Availability of Public Filings

Our principal executive offices are located at 1615 Wynkoop Street, Denver, Colorado 80202, and our telephone number is (303) 357-7310. Our website is located at *www.anteroresources.com*.

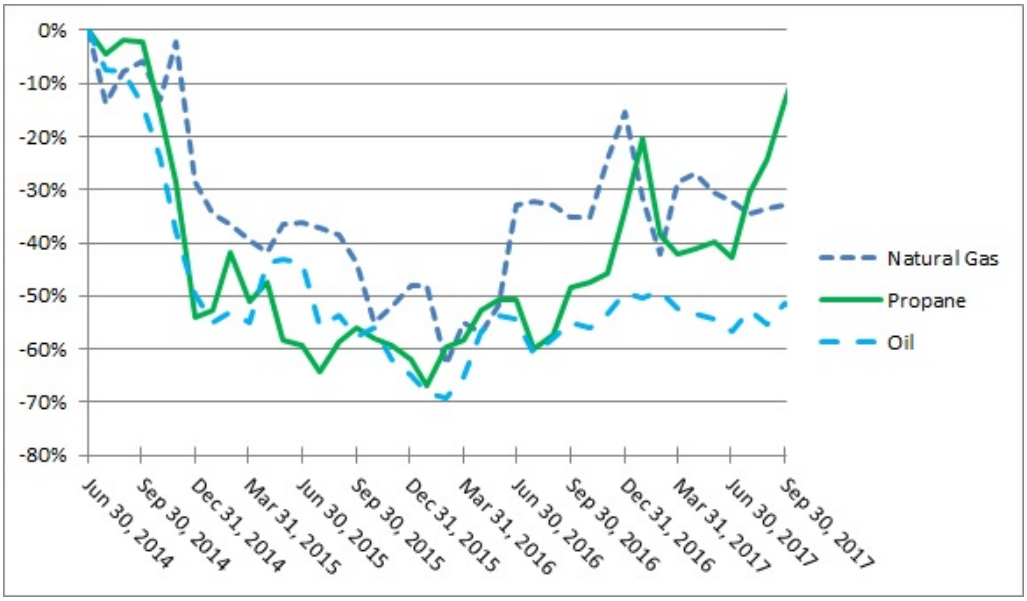
We furnish or file with the SEC our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, and our Current Reports on Form 8-K. We make these documents available free of charge on our website under the "Investors Relations" link as soon as reasonably practicable after they are filed or furnished with the SEC.

Information on our website is not incorporated into this Quarterly Report on Form 10-Q or our other filings with the SEC and is not a part of them.

2017 Developments and Highlights

Energy Industry Environment

In late 2014, global energy commodity prices declined precipitously as a result of several factors, including an increase in worldwide commodity supplies, a stronger U.S. dollar, relatively mild weather in large portions of the U.S., and strong competition among oil producing countries for market share. Depressed commodity prices continued into 2015 and 2016, although a modest recovery occurred in late 2016 and has continued through 2017. The following chart depicts quarterly percentage changes in natural gas (Henry Hub), propane (Mont Belvieu), and oil (West Texas Intermediate) spot prices since June 30, 2014.



In response to these market conditions and concerns about access to capital markets, many U.S. exploration and production companies significantly reduced their capital spending plans in recent years. Our 2017 capital budget includes $1.5 billion for drilling, completions, and land. Excluding acquisitions, this is consistent with our 2016 capital expenditures. Our 2017 capital budget includes plans to operate an average of seven drilling rigs over the course of 2017, which is consistent with 2016; completion of 170 horizontal wells in the Marcellus and Utica Shales in 2017 as compared to 140 in 2016; and deferring the completion of 30 wells until 2018. Although commodity prices have decreased in recent years, we have also realized reductions in drilling and development costs as a result of decreased demand for oilfield services and increased efficiencies from improved drilling and completion technologies and procedures.

We believe that our 2017 capital budget will be fully funded through operating cash flows, available borrowing capacity under Antero's senior secured revolving bank credit facility (the "Credit Facility"), and potential capital market transactions. We continually monitor commodity prices and may revise the capital budget if conditions warrant. Additionally, given the current commodity price environment, we have evaluated the carrying value of our proved properties. See "—Critical Accounting Policies and Estimates" for a discussion of such evaluation.

Production and Financial Results

For the three months ended September 30, 2017, we generated consolidated cash flows from operations of $1.0 billion, a consolidated net loss of $135 million, and consolidated Adjusted EBITDAX of $336 million. This compares to consolidated cash flows from operations of $327 million, consolidated net income of $238 million, and consolidated Adjusted EBITDAX of $373 million for the three months ended September 30, 2016. The consolidated net loss of $135 million for the three months ended September 30, 2017 included (i) commodity derivative fair value losses of $66 million, comprising gains on settled derivatives of $61 million, cash proceeds from hedge monetizations of $750 million (see "—Deleveraging Activities" below), and a non-cash loss of $877 million on changes in the fair value of unsettled commodity derivatives, (ii) a non-cash charge of $26 million for equity-based compensation, (iii) a non-cash charge of $41 million for impairments of unproved properties, and (iv) a non-cash deferred tax benefit

of $45 million. See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income. The impact of hedge monetizations is excluded from our Adjusted EBITDAX and per-unit calculations presented herein. See "—Deleveraging Activities" for further discussion.

For the three months ended September 30, 2017, our net production totaled 213 Bcfe, or 2,317 MMcfe per day, a 24% increase compared to 172 Bcfe, or 1,875 MMcfe per day, for the three months ended September 30, 2016. Our average price received for production, before the effects of gains on settled derivatives, for the three months ended September 30, 2017 was $3.10 per Mcfe compared to $2.82 per Mcfe for the three months ended September 30, 2016. Our average realized price after the effects of gains on settled derivatives was $3.39 per Mcfe for the three months ended September 30, 2017 compared to $3.96 per Mcfe for the three months ended September 30, 2016.

For the nine months ended September 30, 2017, we generated consolidated cash flows from operations of $1.7 billion, consolidated net income of $128 million, and Adjusted EBITDAX of $1.0 billion. This compares to consolidated cash flows from operations of $906 million, a consolidated net loss of $363 million, and consolidated Adjusted EBITDAX of $1.1 billion for the nine months ended September 30, 2016. Consolidated net income of $128 million for the nine months ended September 30, 2017 included (i) commodity derivative fair value gains of $458 million, comprising gains on settled derivatives of $137 million, cash proceeds from hedge monetizations of $750 million, and a non-cash loss of $429 million on changes in the fair value of unsettled commodity derivatives, (ii) a non-cash charge of $79 million for equity-based compensation, (iii) a non-cash charge of $83 million for impairments of unproved properties, and (iv) a non-cash deferred tax expense of $105 million. See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income. The impact of hedge monetizations is excluded from our Adjusted EBITDAX and per-unit calculations presented herein. See "—Deleveraging Activities" for further discussion.

For the nine months ended September 30, 2017, our net production totaled 606 Bcfe, or 2,221 MMcfe per day, a 23% increase compared to 493 Bcfe, or 1,799 MMcfe per day, for the nine months ended September 30, 2016. Our average price received for production, before the effects of gains on settled derivatives, for the nine months ended September 30, 2017 was $3.30 per Mcfe compared to $2.36 per Mcfe for the nine months ended September 30, 2016. Our average realized price after the effects of gains on settled derivatives was $3.53 per Mcfe for the nine months ended September 30, 2017 compared to $4.02 per Mcfe for the nine months ended September 30, 2016.

Deleveraging Activities

During the three months ended September 30, 2017, we monetized over $1 billion of our non-exploration and production assets and used the proceeds to repay outstanding borrowings under our revolving credit facility. Proceeds from these activities are not expected to result in cash taxes payable due to the utilization of a portion of our net operating loss ("NOL") carryforwards. These deleveraging activities consisted of the following transactions:

- On September 11, 2017, we completed a public sale of 10,000,000 common units representing limited partner interests in Antero Midstream which were held by Antero. We received total net proceeds from the transaction of $311 million.
- In September 2017, we monetized portions of our hedge portfolio by reducing the average fixed index prices on certain of our natural gas hedges that settle from 2018 through 2022 while maintaining the total volumes hedged. We received total proceeds of approximately $750 million from the monetization of the natural gas hedges.

2017 Capital Budget and Capital Spending

Our consolidated capital budget for 2017 is $2.3 billion and includes: $1.3 billion for drilling and completion, $200 million for core leasehold acreage additions and extensions, and $800 million for capital expenditures by Antero Midstream, which includes investments in unconsolidated gathering and processing entities. We do not budget for acquisitions. Approximately 70% of the drilling and completion budget is allocated to the Marcellus Shale, and the remaining 30% is allocated to the Ohio Utica Shale. Over the course of 2017, we plan to operate an average of four drilling rigs in the Marcellus Shale and three drilling rigs in the Ohio Utica Shale. We periodically review our capital expenditures and adjust our budget and its allocation based on liquidity, drilling results, leasehold acquisition opportunities, and commodity prices.

For the nine months ended September 30, 2017, our consolidated capital expenditures were approximately $1.7 billion, including drilling and completion costs of $947 million, leasehold additions of $182 million, acquisitions of $179 million, gathering and compression expenditures of $255 million, water handling and treatment expenditures of $143 million, and other capital expenditures

of $11 million. Antero Midstream also invested $217 million in a joint venture with MarkWest Energy Partners L.P. (the "Joint Venture").

Hedge Position (after effects of hedge monetization)

As of September 30, 2017, we had entered into hedging contracts for approximately 2.9 Tcf of our projected natural gas production at a weighted average index price of $3.36 per MMbtu for the period from October 1, 2017 through December 31, 2023, 152 million gallons of propane at a weighted average price of $0.48 per gallon for the period from October 1, 2017 through December 31, 2018, 77 million gallons of ethane at a weighted average price of $0.25 per gallon for the period from October 1, 2017 through December 31, 2017, and 641 MBbls of oil at a weighted average price of $52.02 per Bbl for the period from October 1, 2017 through December 31, 2018. These hedging contracts include contracts for the remainder of 2017 of approximately 171 Bcf of natural gas at a weighted average index price of $3.71 per Mcf, 106 million gallons of propane at a weighted average price of $0.40 per gallon, 77 million gallons of ethane at a weighted average price of $0.25 per gallon, and 276 MBbls of oil at a weighted average price of $54.75 per Bbl.

Credit Facilities

On November 4, 2010, Antero entered into a credit facility with a consortium of bank lenders (the "Prior Credit Facility"). On October 26, 2017, Antero entered into an amendment and restatement of the Prior Credit Facility (the "Credit Facility"). As of September 30, 2017, our borrowing base under the Prior Credit Facility was $4.75 billion and lender commitments were $4.0 billion. Under the Credit Facility, the maximum facility amount is $4.75 billion, the borrowing base is $4.5 billion, and lender commitments are $2.5 billion. Our borrowing base under the Credit Facility is redetermined annually and is based on the estimated future cash flows from our proved oil and gas reserves and our commodity hedge positions. The next redetermination is scheduled to occur in March 2018. At September 30, 2017, we had $25 million of borrowings and $700 million of letters of credit outstanding under the Prior Credit Facility. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the maturity of any series of Antero's senior notes, unless such series of senior notes is refinanced. See "—Debt Agreements and Contractual Obligations—Senior Secured Revolving Credit Facility" for a description of the Credit Facility.

On November 10, 2014, Antero Midstream entered into a credit facility with a consortium of bank lenders that provides for lender commitments of $1.5 billion (the "Prior Midstream Facility"). On October 26, 2017, Antero Midstream entered into an amendment and restatement of the Prior Midstream Facility (the "Midstream Facility") that also provides for lender commitments of $1.5 billion. At September 30, 2017, Antero Midstream had $427 million of borrowings outstanding under the Prior Midstream Facility. The Midstream Facility will mature on October 26, 2022. See "—Debt Agreements and Contractual Obligations—Midstream Credit Facility" for a description of the Midstream Facility.

Antero Midstream Equity Distribution Agreement

During the nine months ended September 30, 2017, Antero Midstream issued and sold 777,262 common units under the Distribution Agreement, resulting in net proceeds of $25.5 million after deducting commissions and other offering costs. As of September 30, 2017, Antero Midstream had the capacity to issue additional common units under the Distribution Agreement up to an aggregate sales price of $157.3 million.

Results of Operations

Three Months Ended September 30, 2016 Compared to Three Months Ended September 30, 2017

The Company has four operating segments: (1) the exploration, development and production of natural gas, NGLs, and oil; (2) gathering and processing; (3) water handling and treatment; and (4) marketing of excess firm transportation capacity. Revenues from the gathering and processing and water handling and treatment operations are primarily derived from intersegment transactions for services provided to our exploration and production operations by Antero Midstream. Intersegment transactions that are eliminated include revenues from water handling and treatment services provided by Antero Midstream which are capitalized as proved property development costs by Antero. Marketing revenues are primarily derived from activities to purchase and sell third-party natural gas and NGLs and to market excess firm transportation capacity to third parties.

The operating results of the Company's reportable segments were as follows for the three months ended September 30, 2016 and 2017 (in thousands):

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2016:						
Sales and revenues:						
Third-party	$ 1,016,458	2,745	224	97,076	—	1,116,503
Intersegment	3,990	75,319	72,187	—	(151,496)	—
Total	$ 1,020,448	78,064	72,411	97,076	(151,496)	1,116,503
Operating expenses:						
Lease operating	$ 13,710	—	28,978	—	(28,834)	13,854
Gathering, compression, processing, and transportation	303,753	6,400	—	—	(75,238)	234,915
Depletion, depreciation, and amortization	172,735	18,540	7,838	—	—	199,113
General and administrative (before equity-based compensation)	24,856	5,068	1,647	—	(375)	31,196
Equity-based compensation	19,781	5,214	1,386	—	—	26,381
Other	31,266	(1,708)	3,070	114,611	(3,527)	143,712
Total	566,101	33,514	42,919	114,611	(107,974)	649,171
Operating income (loss)	$ 454,347	44,550	29,492	(17,535)	(43,522)	467,332
Equity in earnings of unconsolidated affiliates	$ —	1,543	—	—	—	1,543
Segment Adjusted EBITDAX (1)	$ 323,261	68,304	42,243	(17,535)	(43,522)	372,751

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2017:						
Sales and revenues:						
Third-party	$ 594,244	2,609	260	50,767	—	647,880
Intersegment	3,070	97,909	92,851	—	(193,830)	—
Total	$ 597,314	100,518	93,111	50,767	(193,830)	647,880
Operating expenses:						
Lease operating	$ 24,060	—	51,569	—	(52,138)	23,491
Gathering, compression, processing, and transportation	369,538	10,468	—	—	(97,872)	282,134
Depletion, depreciation, and amortization	176,188	22,027	8,753	—	—	206,968
General and administrative (before equity-based compensation)	29,041	4,225	2,892	—	(402)	35,756
Equity-based compensation	19,248	5,111	2,088	—	—	26,447
Other	65,259	92	3,457	78,884	(2,556)	145,136
Total	683,334	41,923	68,759	78,884	(152,968)	719,932
Operating income (loss)	$ (86,020)	58,595	24,352	(28,117)	(40,862)	(72,052)
Equity in earnings of unconsolidated affiliates	$ —	7,033	—	—	—	7,033
Segment Adjusted EBITDAX (1)	$ 277,553	90,033	37,749	(28,117)	(40,862)	336,356

(1) See "—Non-GAAP Financial Measures" for a definition of Segment Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Segment Adjusted EBITDAX to operating income.

The following tables set forth selected consolidated operating data for the three months ended September 30, 2016 compared to the three months ended September 30, 2017:

(in thousands)	Three Months Ended September 30, 2016	Three Months Ended September 30, 2017	Amount of Increase (Decrease)	Percent Change
Operating revenues and other:				
Natural gas sales	$ 364,373	$ 409,141	$ 44,768	12 %
NGLs sales	106,958	224,533	117,575	110 %
Oil sales	14,793	26,527	11,734	79 %
Gathering, compression, water handling and treatment	2,969	2,869	(100)	(3)%
Marketing	97,076	50,767	(46,309)	(48)%
Commodity derivative fair value gains (losses)	530,334	(65,957)	(596,291)	*
Total operating revenues and other	1,116,503	647,880	(468,623)	(42)%
Operating expenses:				
Lease operating	13,854	23,491	9,637	70 %
Gathering, compression, processing, and transportation	234,915	282,134	47,219	20 %
Production and ad valorem taxes	15,554	22,995	7,441	48 %
Marketing	114,611	78,884	(35,727)	(31)%
Exploration	1,166	1,599	433	37 %
Impairment of unproved properties	11,753	41,000	29,247	249 %
Depletion, depreciation, and amortization	199,113	206,968	7,855	4 %
Accretion of asset retirement obligations	628	658	30	5 %
General and administrative (before equity-based compensation)	31,196	35,756	4,560	15 %
Equity-based compensation	26,381	26,447	66	— %
Total operating expenses	649,171	719,932	70,761	11 %
Operating income (loss)	467,332	(72,052)	(539,384)	*
Other earnings (expenses):				
Equity in earnings of unconsolidated affiliate	1,543	7,033	5,490	356 %
Interest expense	(59,755)	(70,059)	(10,304)	17 %
Total other expenses	(58,212)	(63,026)	(4,814)	8 %
Income (loss) before income taxes	409,120	(135,078)	(544,198)	*
Income tax (expense) benefit	(140,924)	45,078	186,002	*
Net income (loss) and comprehensive income (loss) including noncontrolling interest	268,196	(90,000)	(358,196)	*
Net income and comprehensive income attributable to noncontrolling interest	29,941	45,063	15,122	51 %
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ 238,255	$ (135,063)	$ (373,318)	*
Adjusted EBITDAX (1)	$ 372,751	$ 336,356	$ (36,395)	(10)%

	Three Months Ended September 30,		Amount of Increase	Percent
	2016	2017	(Decrease)	Change
Production data:				
Natural gas (Bcf)	128	151	23	18 %
C2 Ethane (MBbl)	1,801	2,789	988	55 %
C3+ NGLs (MBbl)	5,270	6,927	1,657	31 %
Oil (MBbl)	423	624	201	47 %
Combined (Bcfe)	172	213	41	24 %
Daily combined production (MMcfe/d)	1,875	2,317	442	24 %
Average prices before effects of derivative settlements(2):				
Natural gas (per Mcf)	$ 2.86	$ 2.71	$ (0.15)	(5)%
C2 Ethane (per Bbl)	$ 8.00	$ 8.68	$ 0.68	9 %
C3+ NGLs (per Bbl)	$ 17.56	$ 28.92	$ 11.36	65 %
Oil (per Bbl)	$ 34.93	$ 42.50	$ 7.57	22 %
Combined (per Mcfe)	$ 2.82	$ 3.10	$ 0.28	10 %
Average realized prices after effects of derivative settlements(2):				
Natural gas (per Mcf)	$ 4.30	$ 3.37	$ (0.93)	(22)%
C2 Ethane (per Bbl)	$ 8.00	$ 8.53	$ 0.53	7 %
C3+ NGLs (per Bbl)	$ 19.96	$ 23.15	$ 3.19	16 %
Oil (per Bbl)	$ 34.93	$ 45.40	$ 10.47	30 %
Combined (per Mcfe)	$ 3.96	$ 3.39	$ (0.57)	(14)%
Average Costs (per Mcfe):				
Lease operating	$ 0.08	$ 0.11	$ 0.03	38 %
Gathering, compression, processing, and transportation	$ 1.36	$ 1.32	$ (0.04)	(3)%
Production and ad valorem taxes	$ 0.09	$ 0.11	$ 0.02	22 %
Marketing expense, net	$ 0.10	$ 0.13	$ 0.03	30 %
Depletion, depreciation, amortization, and accretion	$ 1.16	$ 0.97	$ (0.19)	(16)%
General and administrative (before equity-based compensation)	$ 0.18	$ 0.17	$ (0.01)	(6)%

(1) See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income (loss) including noncontrolling interest and net cash provided by operating activities.

(2) Average sales prices shown in the table reflect both the before and after effects of our settled derivatives. Our calculation of such after effects includes gains on settlements of derivatives (but does not include the hedge monetizations described in "—Deleveraging Activities" above), which do not qualify for hedge accounting because we do not designate or document them as hedges for accounting purposes. Oil and NGLs production was converted at 6 Mcf per Bbl to calculate total Bcfe production and per Mcfe amounts. This ratio is an estimate of the equivalent energy content of the products and does not necessarily reflect their relative economic value.

*Not meaningful or applicable.

Discussion of Consolidated Exploration and Production Results for the Three Months Ended September 30, 2016 Compared to the Three Months Ended September 30, 2017

Natural gas, NGLs, and oil sales. Revenues from production of natural gas, NGLs, and oil increased from $486 million for the three months ended September 30, 2016 to $660 million for the three months ended September 30, 2017, an increase of $174 million, or 36%. Our production increased by 24% over that same period, from 172 Bcfe, or 1,875 MMcfe per day, for the three months ended September 30, 2016 to 213 Bcfe, or 2,317 MMcfe per day, for the three months ended September 30, 2017. Net equivalent prices before the effects of settled derivative gains increased from $2.82 per Mcfe for the three months ended September 30, 2016 to $3.10 for the three months ended September 30, 2017, an increase of 10%. Average prices for ethane, C3+ NGLs, and oil all increased from 2016 levels, whereas average prices for natural gas declined from 2016 levels. Net equivalent prices after the effects of gains on settled derivatives (excluding hedge monetizations) decreased from $3.96 for the three months ended September 30, 2016 to $3.39 for the three months ended September 30, 2017, due to lower average hedged prices in the three months ended September 30, 2017.

Increased production volumes accounted for an approximate $115 million increase in year-over-year product revenues (calculated as the combined change in year-to-year volumes times the prior year average price), and increases in our equivalent prices, excluding the effects of derivative settlements, accounted for an approximate $59 million increase in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes). Production increases resulted from an increase in the number of producing wells as a result of our drilling and completion program.

During the three months ended September 30, 2016 and 2017, our natural gas revenues were negatively affected by contractual issues with certain of our customers. For more information on these disputes, please see Note 10 to the condensed consolidated financial statements or "Item 1. Legal Proceedings" included elsewhere in this Quarterly Report on Form 10-Q.

Commodity derivative fair value gains (losses). To achieve more predictable cash flows, and to reduce our exposure to price fluctuations, we enter into fixed for variable price swap contracts when management believes that favorable future sales prices for our production can be secured. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment. Consequently, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. For the three months ended September 30, 2016 and 2017, our hedges resulted in derivative fair value gains (losses) of $530 million and $(66) million, respectively. The derivative fair value gains and losses included $197 million and $61 million of gains on cash settled derivatives for the three months ended September 30, 2016 and 2017, respectively. Commodity derivative fair value gains (losses) for the three months ended September 30, 2017 also include gains of $750 million related to derivatives which were partially monetized prior to their settlement dates. See "—Deleveraging Activities" for further discussion.

Commodity derivative fair value gains or losses vary based on future commodity prices and have no cash flow impact until the derivative contracts are settled or monetized prior to settlement. Derivative asset or liability positions at the end of any accounting period may reverse to the extent future commodity prices increase or decrease from their levels at the end of the accounting period, or as gains or losses are realized through settlement. We expect continued volatility in commodity prices and the related fair value of our derivative instruments in the future.

Gathering, compression, water handling and treatment revenues. Gathering, compression, water handling and treatment revenues remained consistent at $3 million for the three months ended September 30, 2016 and 2017. Fees for gathering, compression, water handling and treatment services provided to us by Antero Midstream are eliminated in consolidation. The amounts that are not eliminated represent the portion of such fees that are charged to outside working interest owners in Company-operated wells, as well as fees charged to other third parties for services provided by Antero Midstream.

Lease operating expense. Lease operating expense increased from $14 million for the three months ended September 30, 2016 to $23 million for the three months ended September 30, 2017, an increase of 70%. This increase is primarily the result of an increase in production and the number of producing wells. On a per unit basis, lease operating expenses increased from $0.08 per Mcfe for the three months ended September 30, 2016 to $0.11 per Mcfe for the three months ended September 30, 2017. The increase in lease operating expenses on a per Mcfe basis is due to an increase in produced water on new well pads, which is attributable to an increase in the amount of water used in our advanced well completions. In addition, lease operating expenses are expected to gradually increase on a per-unit basis as maturing properties make up a larger proportion of our production base and average production per existing well declines.

Gathering, compression, processing, and transportation expense. Gathering, compression, processing, and transportation expense increased from $235 million for the three months ended September 30, 2016 to $282 million for the three months ended September 30, 2017. The increase in these expenses is a result of the increase in production and the related firm transportation, gathering, compression, and processing expenses. On a per Mcfe basis, consolidated gathering, compression, processing and transportation expenses decreased from $1.36 per Mcfe for the three months ended September 30, 2016 to $1.32 per Mcfe for the three months ended September 30, 2017, primarily as a result of decreases in fuel costs as compared to the prior year due to lower natural gas prices.

Production and ad valorem tax expense. Total production and ad valorem taxes increased from $16 million for the three months ended September 30, 2016 to $23 million for the three months ended September 30, 2017 as a result of an increase in production revenues. On a per Mcfe basis, production and ad valorem taxes increased from $0.09 per Mcfe for the three months ended September 30, 2016 to $0.11 per Mcfe for the three months ended September 30, 2017 as a result of higher realized prices. Production and ad valorem taxes as a percentage of natural gas, NGLs, and oil revenues before the effects of hedging increased from 3.2% for the three months ended September 30, 2016 to 3.5% for the three months ended September 30, 2017. As production in West Virginia increased at a higher rate than Ohio, severance taxes as a percentage of revenue increased due to higher severance tax rates in West Virginia as compared to Ohio.

Exploration expense. Exploration expense increased from $1 million for the three months ended September 30, 2016 to $2 million for the three months ended September 30, 2017. These amounts represent expenses incurred for unsuccessful lease acquisition efforts.

Impairment of unproved properties. Impairment of unproved properties increased from $12 million for the three months ended September 30, 2016 to $41 million for the three months ended September 30, 2017, primarily due to the expiration of certain Utica leases which we elected not to retain and develop. We charge impairment expense for expired or soon-to-be expired leases when we determine they are impaired based on factors such as remaining lease terms, reservoir performance, commodity price outlooks, or future plans to develop the acreage.

Depletion, depreciation, and amortization expense. Depletion, depreciation, and amortization ("DD&A") increased from $199 million for the three months ended September 30, 2016 to $207 million for the three months ended September 30, 2017, primarily because of increased production. DD&A per Mcfe decreased by 16%, from $1.16 per Mcfe during the three months ended September 30, 2016 to $0.97 per Mcfe during the three months ended September 30, 2017. This decrease was due to increases in our estimated recoverable reserves, due to improved well performance, and decreases in our per-unit development costs, which is due to well cost reductions and drilling and completion efficiencies that we have achieved over the last year.

We evaluate the carrying amount of our proved natural gas, NGLs, and oil properties for impairment on a geological reservoir basis whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. If the carrying amount exceeded the estimated undiscounted future net cash flows (measured using futures prices at the end of a quarter), we would further evaluate our proved properties and record an impairment charge if the carrying amount of our proved properties exceeded the estimated fair value of the properties. At September 30, 2017, we compared the carrying values of our proved properties to estimated future net cash flows. As estimated future net cash flows were higher than the carrying values of our proved properties at September 30, 2017, we did not further evaluate our proved properties for impairment.

General and administrative expense. General and administrative expense (before equity-based compensation expense) increased from $31 million for the three months ended September 30, 2016 to $36 million for the three months ended September 30, 2017, primarily due to increases in employee compensation and benefits expenses. On a per-unit basis, general and administrative expense before equity-based compensation decreased by 6%, from $0.18 per Mcfe during the three months ended September 30, 2016 to $0.17 per Mcfe during the three months ended September 30, 2017, primarily due to our 24% increase in production. We had 516 employees as of September 30, 2016 and 583 employees as of September 30, 2017.

Equity-based compensation expense. Non-cash equity-based compensation expense remained consistent at $26 million for the three months ended September 30, 2016 and 2017. See Note 7 to the condensed consolidated financial statements included elsewhere in this report for more information on equity-based compensation awards.

Interest expense. Interest expense increased from $60 million for the three months ended September 30, 2016 to $70 million for the three months ended September 30, 2017, primarily due to Antero Midstream's issuance of its 5.375% senior notes due 2024 in September 2016 and increased average balances outstanding under our revolving credit facilities. Interest expense includes approximately $2.9 million and $3.0 million of non-cash amortization of deferred financing costs for the three months ended September 30, 2016 and 2017, respectively

Income tax (expense) benefit. Income tax (expense) benefit changed from a deferred tax expense of $141 million for the three months ended September 30, 2016 to a deferred tax benefit of $45 million for the three months ended September 30, 2017. The deferred tax expense for the three months ended September 30, 2016 was due to pre-tax income generated for financial reporting purposes, whereas we incurred a pre-tax loss for financial reporting purposes for the three months ended September 30, 2017.

At December 31, 2016, we had approximately $1.6 billion of NOLs for U.S. federal income tax purposes that expire at various dates from 2024 through 2036 and approximately $1.4 billion of state NOLs that expire at various dates from 2017 through 2036. In past years, legislation has been proposed that would, if enacted into law, make significant changes to U.S. tax laws, including to certain key U.S. federal income tax provisions currently available to oil and gas companies, such as deductions for intangible drilling costs. Moreover, other more general features of tax reform legislation, including changes to cost recovery rules and to the deductibility of interest expenses, may also change the taxation of oil and gas companies. If passed, such legislation could significantly affect our future taxable position. The impact of any such change would be recorded in the period in which such legislation is enacted.

Adjusted EBITDAX. Adjusted EBITDAX decreased by 10%, from $373 million for the three months ended September 30, 2016 to $336 million for the three months ended September 30, 2017. The decrease in Adjusted EBITDAX was primarily due to decreases in our average realized price for natural gas after gains on settled derivatives, partially offset by increased production. Adjusted EBITDAX does not include $750 million of realized gains from the partial monetization of certain natural gas hedges. See "—Deleveraging Activities" for further discussion of the hedge monetizations. See "—Non-GAAP Financial Measures" for a definition

of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income (loss) including noncontrolling interest and net cash provided by operating activities.

Discussion of Segment Results for the Three Months Ended September 30, 2016 Compared to the Three Months Ended September 30, 2017

Our previous discussion of the consolidated exploration and production results includes the consolidated results from our gathering and processing, water handling and treatment, and marketing segments, whose revenues are almost entirely derived from services provided to the exploration and production segment. Our gathering and processing and water handling and treatment operations are almost entirely conducted by Antero Midstream, a master limited partnership. Antero owns 53% of Antero Midstream's issued and outstanding common units. Antero Midstream's distributable cash is paid to its common unitholders subsequent to the end of each quarter. Following is a summary level discussion of the various segment results which should be read in conjunction with our detailed discussion of our consolidated exploration and production results:

Exploration and production. Revenues from the exploration and production segment decreased from $1.0 billion for the three months ended September 30, 2016 to $597 million for the three months ended September 30, 2017, primarily because of the decrease in commodity derivative fair value gains and losses of $596 million, partially offset by an increase in production revenues of $174 million from increases in production and realized prices. Total operating expenses increased from $566 million for the three months ended September 30, 2016 to $683 million for the three months ended September 30, 2017, primarily because of a 24% increase in production. Gathering, compression, processing, and transportation expenses increased by $66 million, lease operating expenses increased by $10 million, DD&A expenses increased by $3 million, impairment expense for unproved properties increased by $29 million and other items increased by $9 million.

On a per Mcfe basis, total gathering, compression, processing and transportation expenses for the exploration and production segment decreased from $1.76 per Mcfe for the three months ended September 30, 2016 to $1.73 per Mcfe for the three months ended September 30, 2017, primarily as a result of decreases in fuel costs.

Gathering and Processing. Revenue for the gathering and processing segment increased from $78 million for the three months ended September 30, 2016 to $101 million for the three months ended September 30, 2017, an increase of $23 million, or 29%. Gathering revenues increased by $15 million from the prior year period and compression revenues increased by $8 million as additional wells on production increased throughput volumes. Total operating expenses related to the gathering and processing segment increased from $34 million for the three months ended September 30, 2016 to $42 million for the three months ended September 30, 2017 primarily as a result of increases in direct operating and depreciation expenses due to a larger base of gathering and compression assets.

In May 2016, Antero Midstream purchased a 15% equity interest in a regional gathering pipeline. In February 2017, Antero Midstream formed the Joint Venture with MarkWest, which provides natural gas processing and fractionation services. Equity in earnings of unconsolidated affiliates of $1.5 million and $7.0 million for the three months ended September 30, 2016 and 2017, respectively, represents the portion of the net income from these investments which is allocated to Antero Midstream based on its equity interests. The increase was primarily attributable to the commencement of operations of the Joint Venture in February 2017.

Water Handling and Treatment. Revenue for the water handling and treatment segment increased from $72 million for the three months ended September 30, 2016 to $93 million for the three months ended September 30, 2017, an increase of $21 million, or 29%. The increase was primarily due to an increase in the volume of water used per well in our advanced completions during the three months ended September 30, 2017 as compared to the three months ended September 30, 2016, as well as an increase in other fluid handling services. The volume of water delivered through the systems increased from 12.9 MMBbls for the three months ended September 30, 2016 to 13.0 MMBbls for the three months ended September 30, 2017. Operating expenses for the water handling and treatment segment increased from $43 million for the three months ended September 30, 2016 to $69 million for the three months ended September 30, 2017, primarily due to the increase in other fluid handling services.

Marketing. Where permitted, we purchase and sell third-party natural gas and NGLs and market our excess firm transportation capacity, or engage third parties to conduct these activities on our behalf, in order to optimize the revenues from these transportation agreements. We have entered into long-term firm transportation agreements for a significant portion of our current and expected future production in order to secure guaranteed capacity to favorable markets. Marketing revenues of $97 million and $51 million and expenses of $115 million and $79 million for the three months ended September 30, 2016 and 2017, respectively, relate to these activities. Net losses on our marketing activities were $18 million and $28 million for the three months ended September 30, 2016 and 2017, respectively. Marketing costs include firm transportation costs related to current excess capacity as well as the cost of third-

party purchased gas and NGLs. This includes firm transportation costs of $24 million and $27 million for the three months ended September 30, 2016 and 2017, respectively, related to unutilized excess capacity which increased due to decreased utilization of a pipeline which has higher per-unit commitment fees than the average of our transportation portfolio.

Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2017

The Company has four operating segments: (1) the exploration, development and production of natural gas, NGLs, and oil; (2) gathering and processing; (3) water handling and treatment; and (4) marketing of excess firm transportation capacity. Revenues from the gathering and processing and water handling and treatment operations are primarily derived from intersegment transactions for services provided to our exploration and production operations by Antero Midstream. Intersegment transactions that are eliminated include revenues from water handling and treatment services provided by Antero Midstream which are capitalized as proved property development costs by Antero. Marketing revenues are primarily derived from activities to purchase and sell third-party natural gas and NGLs and to market excess firm transportation capacity to third parties.

The operating results of the Company's reportable segments were as follows for the nine months ended September 30, 2016 and 2017 (in thousands):

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2016:						
Sales and revenues:						
Third-party	$ 1,291,008	9,463	644	287,194	—	1,588,309
Intersegment	11,714	210,144	203,106	—	(424,964)	—
Total	$ 1,302,722	219,607	203,750	287,194	(424,964)	1,588,309
Operating expenses:						
Lease operating	$ 37,299	—	104,009	—	(104,118)	37,190
Gathering, compression, processing, and transportation	838,936	20,567	—	—	(209,790)	649,713
Depletion, depreciation, and amortization	513,302	52,780	21,975	—	—	588,057
General and administrative (before equity-based compensation)	79,055	14,853	5,493	—	(1,102)	98,299
Equity-based compensation	56,301	14,902	4,464	—	—	75,667
Other	104,279	(809)	11,568	378,521	(10,384)	483,175
Total	1,629,172	102,293	147,509	378,521	(325,394)	1,932,101
Operating income (loss)	$ (326,450)	117,314	56,241	(91,327)	(99,570)	(343,792)
Equity in earnings of unconsolidated affiliates	$ —	2,027	—	—	—	2,027
Segment Adjusted EBITDAX (1)	$ 973,101	184,996	93,064	(91,327)	(99,570)	1,060,264

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2017:						
Sales and revenues:						
Third-party	$ 2,458,524	7,472	1,193	166,659	—	2,633,848
Intersegment	11,421	283,467	270,033	—	(564,921)	—
Total	$ 2,469,945	290,939	271,226	166,659	(564,921)	2,633,848
Operating expenses:						
Lease operating	$ 56,991	—	131,635	—	(132,592)	56,034
Gathering, compression, processing, and transportation	1,070,522	28,492	—	—	(283,304)	815,710
Depletion, depreciation, and amortization	521,603	64,445	24,831	—	—	610,879
General and administrative (before equity-based compensation)	90,387	15,242	7,884	—	(1,438)	112,075
Equity-based compensation	58,489	14,937	5,499	—	—	78,925
Other	158,128	104	12,333	246,298	(9,672)	407,191
Total	1,956,120	123,220	182,182	246,298	(427,006)	2,080,814
Operating income (loss)	$ 513,825	167,719	89,044	(79,639)	(137,915)	553,034
Equity in earnings of unconsolidated affiliates	$ —	12,887	—	—	—	12,887
Segment Adjusted EBITDAX (1)	$ 853,730	257,221	129,046	(79,639)	(137,915)	1,022,443

(1) See "—Non-GAAP Financial Measures" for a definition of Segment Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Segment Adjusted EBITDAX to operating income.

The following tables set forth selected consolidated operating data for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2017:

(in thousands)	Nine Months Ended September 30, 2016	Nine Months Ended September 30, 2017	Amount of Increase (Decrease)	Percent Change
Operating revenues and other:				
Natural gas sales	$ 848,936	$ 1,330,062	$ 481,126	57 %
NGLs sales	274,736	590,004	315,268	115 %
Oil sales	41,712	79,999	38,287	92 %
Gathering, compression, water handling and treatment	10,107	8,665	(1,442)	(14)%
Marketing	287,194	166,659	(120,535)	(42)%
Commodity derivative fair value gains	125,624	458,459	332,835	265 %
Total operating revenues and other	1,588,309	2,633,848	1,045,539	66 %
Operating expenses:				
Lease operating	37,190	56,034	18,844	51 %
Gathering, compression, processing, and transportation	649,713	815,710	165,997	26 %
Production and ad valorem taxes	52,296	70,341	18,045	35 %
Marketing	378,521	246,298	(132,223)	(35)%
Exploration	3,289	5,510	2,221	68 %
Impairment of unproved properties	47,223	83,098	35,875	76 %
Depletion, depreciation, and amortization	588,057	610,879	22,822	4 %
Accretion of asset retirement obligations	1,846	1,944	98	5 %
General and administrative (before equity-based compensation)	98,299	112,075	13,776	14 %
Equity-based compensation	75,667	78,925	3,258	4 %
Total operating expenses	1,932,101	2,080,814	148,713	8 %
Operating income (loss)	(343,792)	553,034	896,826	*
Other earnings (expenses):				
Equity in earnings of unconsolidated affiliates	2,027	12,887	10,860	536 %
Interest expense	(185,634)	(205,311)	(19,677)	11 %
Total other expenses	(183,607)	(192,424)	(8,817)	5 %
Income (loss) before income taxes	(527,399)	360,610	888,009	*
Income tax (expense) benefit	230,755	(105,087)	(335,842)	*
Net income (loss) and comprehensive income (loss) including noncontrolling interest	(296,644)	255,523	552,167	*
Net income and comprehensive income attributable to noncontrolling interest	66,400	127,322	60,922	92 %
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (363,044)	$ 128,201	$ 491,245	*
Adjusted EBITDAX (1)	$ 1,060,264	$ 1,022,443	$ (37,821)	(4)%

	Nine Months Ended September 30,		Amount of Increase	Percent
	2016	2017	(Decrease)	Change
Production data:				
Natural gas (Bcf)	369	435	66	18 %
C2 Ethane (MBbl)	4,463	7,648	3,185	71 %
C3+ NGLs (MBbl)	14,722	19,085	4,363	30 %
Oil (MBbl)	1,373	1,880	507	37 %
Combined (Bcfe)	493	606	113	23 %
Daily combined production (MMcfe/d)	1,799	2,221	422	23 %
Average prices before effects of derivative settlements(2):				
Natural gas (per Mcf)	$ 2.30	$ 3.06	$ 0.76	33 %
C2 Ethane (per Bbl)	$ 7.81	$ 8.38	$ 0.57	7 %
C3+ NGLs (per Bbl)	$ 16.29	$ 27.56	$ 11.27	69 %
Oil (per Bbl)	$ 30.38	$ 42.56	$ 12.18	40 %
Combined (per Mcfe)	$ 2.36	$ 3.30	$ 0.94	40 %
Average realized prices after effects of derivative settlements(2):				
Natural gas (per Mcf)	$ 4.38	$ 3.59	$ (0.79)	(18)%
C2 Ethane (per Bbl)	$ 7.81	$ 8.62	$ 0.81	10 %
C3+ NGLs (per Bbl)	$ 19.30	$ 22.37	$ 3.07	16 %
Oil (per Bbl)	$ 30.38	$ 44.87	$ 14.49	48 %
Combined (per Mcfe)	$ 4.02	$ 3.53	$ (0.49)	(12)%
Average Costs (per Mcfe):				
Lease operating	$ 0.08	$ 0.09	$ 0.01	13 %
Gathering, compression, processing, and transportation	$ 1.32	$ 1.35	$ 0.03	2 %
Production and ad valorem taxes	$ 0.11	$ 0.12	$ 0.01	9 %
Marketing expense, net	$ 0.19	$ 0.13	$ (0.06)	(32)%
Depletion, depreciation, amortization, and accretion	$ 1.20	$ 1.01	$ (0.19)	(16)%
General and administrative (before equity-based compensation)	$ 0.20	$ 0.18	$ (0.02)	(10)%

(1) See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income (loss) including noncontrolling interest and net cash provided by operating activities.

(2) Average sales prices shown in the table reflect both the before and after effects of our settled derivatives. Our calculation of such after effects includes gains on settlements of derivatives (but does not include the hedge monetizations described in "—Deleveraging Activities" above), which do not qualify for hedge accounting because we do not designate or document them as hedges for accounting purposes. Oil and NGLs production was converted at 6 Mcf per Bbl to calculate total Bcfe production and per Mcfe amounts. This ratio is an estimate of the equivalent energy content of the products and does not necessarily reflect their relative economic value.

*Not meaningful or applicable.

Discussion of Consolidated Exploration and Production Results for the Nine Months Ended September 30, 2016 Compared to the Nine Months Ended September 30, 2017

Natural gas, NGLs, and oil sales. Revenues from production of natural gas, NGLs, and oil increased from $1.2 billion for the nine months ended September 30, 2016 to $2.0 billion for the nine months ended September 30, 2017, an increase of $835 million, or 72%. Our production increased by 23% over that same period, from 493 Bcfe, or 1,799 MMcfe per day, for the nine months ended September 30, 2016 to 606 Bcfe, or 2,221 MMcfe per day, for the nine months ended September 30, 2017. Net equivalent prices before the effects of settled derivative gains increased from $2.36 per Mcfe for the nine months ended September 30, 2016 to $3.30 for the nine months ended September 30, 2017, an increase of 40%. Average prices for natural gas, ethane, C3+ NGLs, and oil all increased from 2016 levels. Net equivalent prices after the effects of gains on settled derivatives (excluding hedge monetizations) decreased from $4.02 for the nine months ended September 30, 2016 to $3.53 for the nine months ended September 30, 2017, due to lower average hedged prices in the nine months ended September 30, 2017.

Increased production volumes accounted for an approximate $268 million increase in year-over-year product revenues (calculated as the combined change in year-to-year volumes times the prior year average price), and increases in our equivalent prices, excluding the effects of derivative settlements, accounted for an approximate $567 million increase in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes). Production increases resulted from an increase in the number of producing wells as a result of our drilling and completion program.

During the nine months ended September 30, 2016 and 2017, our natural gas revenues were negatively affected by contractual issues with certain of our customers. For more information on these disputes, please see Note 10 to the condensed consolidated financial statements or "Item 1. Legal Proceedings" included elsewhere in this Quarterly Report on Form 10-Q.

Commodity derivative fair value gains. To achieve more predictable cash flows, and to reduce our exposure to price fluctuations, we enter into fixed for variable price swap contracts when management believes that favorable future sales prices for our production can be secured. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment. Consequently, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. For the nine months ended September 30, 2016 and 2017, our hedges resulted in derivative fair value gains of $126 million and $458 million, respectively. The derivative fair value gains included $814 million and $137 million of gains on cash settled derivatives for the nine months ended September 30, 2016 and 2017, respectively. Commodity derivative fair value gains for the nine months ended September 30, 2017 includes gains of $750 million related to derivatives which were partially monetized prior to their settlement dates. See "—Deleveraging Activities" for further discussion.

Commodity derivative fair value gains or losses vary based on future commodity prices and have no cash flow impact until the derivative contracts are settled or monetized prior to settlement. Derivative asset or liability positions at the end of any accounting period may reverse to the extent future commodity prices increase or decrease from their levels at the end of the accounting period, or as gains or losses are realized through settlement. We expect continued volatility in commodity prices and the related fair value of our derivative instruments in the future.

Gathering, compression, water handling and treatment revenues. Gathering, compression, water handling and treatment revenues decreased from $10 million for the nine months ended September 30, 2016 to $9 million for the nine months ended September 30, 2017, primarily attributable to the provision of such services to wells in which we hold a higher working interest than the wells to which such services were provided in 2016. Fees for gathering, compression, water handling and treatment services provided to us by Antero Midstream are eliminated in consolidation. The amounts that are not eliminated represent the portion of such fees that are charged to outside working interest owners in Company-operated wells, as well as fees charged to other third parties for services provided by Antero Midstream.

Lease operating expense. Lease operating expense increased from $37 million for the nine months ended September 30, 2016 to $56 million for the nine months ended September 30, 2017, an increase of 51%. This increase is primarily the result of an increase in production and the number of producing wells. On a per unit basis, lease operating expenses increased from $0.08 per Mcfe for the nine months ended September 30, 2016 to $0.09 for the nine months ended September 30, 2017. The increase in lease operating expenses on a per Mcfe basis is due to an increase in produced water on new well pads, which is attributable to an increase in the amount of water used in our advanced well completions. Lease operating expenses are expected to gradually increase on a per-unit basis as maturing properties make up a larger proportion of our production base and average production per existing well declines.

Gathering, compression, processing, and transportation expense. Gathering, compression, processing, and transportation expense increased from $650 million for the nine months ended September 30, 2016 to $816 million for the nine months ended September 30, 2017. The increase in these expenses is a result of the increase in production and the related firm transportation, gathering, compression, and processing expenses. On a per Mcfe basis, consolidated gathering, compression, processing and transportation expenses increased from $1.32 per Mcfe for the nine months ended September 30, 2016 to $1.35 per Mcfe for the nine months ended September 30, 2017, primarily due to increased utilization of a pipeline, in the first half of 2017, which has higher per-unit transportation costs than the average of our transportation portfolio.

Production and ad valorem tax expense. Total production and ad valorem taxes increased from $52 million for the nine months ended September 30, 2016 to $70 million for the nine months ended September 30, 2017 as a result of an increase in production revenues. On a per Mcfe basis, production and ad valorem taxes increased from $0.11 per Mcfe for the nine months ended September 30, 2016 to $0.12 per Mcfe for the nine months ended September 30, 2017 as a result of increases in per-unit production revenues. Production and ad valorem taxes as a percentage of natural gas, NGLs, and oil revenues before the effects of hedging decreased from 4.5% for the nine months ended September 30, 2016 to 3.5% for the nine months ended September 30, 2017, primarily attributable to the July 1, 2016 termination of a West Virginia production tax surcharge for workers' compensation funding.

Exploration expense. Exploration expense increased from $3 million for the nine months ended September 30, 2016 to $6 million for the nine months ended September 30, 2017. These amounts represent expenses incurred for unsuccessful lease acquisition efforts.

Impairment of unproved properties. Impairment of unproved properties increased from $47 million for the nine months ended September 30, 2016 to $83 million for the nine months ended September 30, 2017, primarily due to the expiration of certain Utica

leases, in the third quarter of 2017, which we elected not to retain and develop. We charge impairment expense for expired or soon-to-be expired leases when we determine they are impaired based on factors such as remaining lease terms, reservoir performance, commodity price outlooks, or future plans to develop the acreage.

Depletion, depreciation, and amortization expense. DD&A increased from $588 million for the nine months ended September 30, 2016 to $611 million for the nine months ended September 30, 2017, primarily because of increased production. DD&A per Mcfe decreased by 16%, from $1.20 per Mcfe during the nine months ended September 30, 2016 to $1.01 per Mcfe during the nine months ended September 30, 2017. This decrease was due to increases in our estimated recoverable reserves, due to improved well performance, and decreases in our per-unit development costs, which is due to well cost reductions and drilling and completion efficiencies that we have achieved over the last year.

We evaluate the carrying amount of our proved natural gas, NGLs, and oil properties for impairment on a geological reservoir basis whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. If the carrying amount exceeded the estimated undiscounted future net cash flows (measured using futures prices at the end of a quarter), we would further evaluate our proved properties and record an impairment charge if the carrying amount of our proved properties exceeded the estimated fair value of the properties. At September 30, 2017, we compared the carrying values of our proved properties to estimated future net cash flows. As estimated future net cash flows were higher than the carrying values of our proved properties at September 30, 2017, we did not further evaluate our proved properties for impairment.

General and administrative expense. General and administrative expense (before equity-based compensation expense) increased from $98 million for the nine months ended September 30, 2016 to $112 million for the nine months ended September 30, 2017, primarily due to increases in employee compensation and benefits expenses. On a per-unit basis, general and administrative expense before equity-based compensation decreased by 10%, from $0.20 per Mcfe during the nine months ended September 30, 2016 to $0.18 per Mcfe during the nine months ended September 30, 2017, primarily due to our 23% increase in production. We had 516 employees as of September 30, 2016 and 583 employees as of September 30, 2017.

Equity-based compensation expense. Non-cash equity-based compensation expense increased from $76 million for the nine months ended September 30, 2016 to $79 million for the nine months ended September 30, 2017 as a result of an increase in outstanding equity awards. See Note 7 to the condensed consolidated financial statements included elsewhere in this report for more information on equity-based compensation awards.

Interest expense. Interest expense increased from $186 million for the nine months ended September 30, 2016 to $205 million for the nine months ended September 30, 2017, primarily due to Antero Midstream's issuance of its 5.375% senior notes due 2024 in September 2016. Interest expense includes approximately $8.5 million and $8.8 million of non-cash amortization of deferred financing costs for the nine months ended September 30, 2016 and 2017, respectively

Income tax (expense) benefit. Income tax (expense) benefit changed from a deferred tax benefit of $231 million for the nine months ended September 30, 2016 to a deferred tax expense of $105 million for the nine months ended September 30, 2017. The deferred tax benefit for the nine months ended September 30, 2016 was due to a pre-tax loss incurred for financial reporting purposes, whereas we generated pre-tax income for financial reporting purposes for the nine months ended September 30, 2017.

At December 31, 2016, we had approximately $1.6 billion of NOLs for U.S. federal income tax purposes that expire at various dates from 2024 through 2036 and approximately $1.4 billion of state NOLs that expire at various dates from 2017 through 2036. In past years, legislation has been proposed that would, if enacted into law, make significant changes to U.S. tax laws, including to certain key U.S. federal income tax provisions currently available to oil and gas companies, such as deductions for intangible drilling costs. Moreover, other more general features of tax reform legislation, including changes to cost recovery rules and to the deductibility of interest expenses, may also change the taxation of oil and gas companies. If passed, such legislation could significantly affect our future taxable position. The impact of any such change would be recorded in the period in which such legislation is enacted.

Adjusted EBITDAX. Adjusted EBITDAX decreased from $1.1 billion for the nine months ended September 30, 2016 to $1.0 billion for the nine months ended September 30, 2017. The decrease in Adjusted EBITDAX was primarily due to decreases in our average realized price for natural gas after gains on settled derivatives, partially offset by increased production. Adjusted EBITDAX does not include $750 million of realized gains from the partial monetization of certain natural gas hedges. See "—Deleveraging Activities" for further discussion of the hedge monetizations. See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX (a non-GAAP measure) and a reconciliation of Adjusted EBITDAX to net income (loss) including noncontrolling interest and net cash provided by operating activities.

Discussion of Segment Results for the Nine Months Ended September 30, 2016 Compared to the Nine Months Ended September 30, 2017

Our previous discussion of the consolidated exploration and production results includes the consolidated results from our gathering and processing, water handling and treatment, and marketing segments, whose revenues are almost entirely derived from services provided to the exploration and production segment. Our gathering and processing and water handling and treatment operations are almost entirely conducted by Antero Midstream, a master limited partnership. Antero owns 53% of Antero Midstream's issued and outstanding common units. Antero Midstream's distributable cash is paid to its common unitholders subsequent to the end of each quarter. Following is a summary level discussion of the various segment results which should be read in conjunction with our detailed discussion of our consolidated exploration and production results:

Exploration and production. Revenues from the exploration and production segment increased from $1.3 billion for the nine months ended September 30, 2016 to $2.5 million for the nine months ended September 30, 2017, primarily because of an increase in production revenues of $835 million from increases in production and realized prices, as well as an increase in commodity derivative fair value gains and losses of $333 million. Total operating expenses increased from $1.6 billion for the nine months ended September 30, 2016 to $2.0 billion for the nine months ended September 30, 2017, primarily because of a 23% increase in production. Gathering, compression, processing, and transportation expenses increased by $232 million, lease operating expenses increased by $20 million, DD&A expenses increased by $8 million, impairment expense for unproved properties increased by $36 million and other items increased by $31 million.

On a per Mcfe basis, total gathering, compression, processing and transportation expenses for the exploration and production segment increased from $1.70 per Mcfe for the nine months ended September 30, 2016 to $1.76 per Mcfe for the nine months ended September 30, 2017 as a result of increased utilization of a pipeline, in the first half of 2017, which has higher per-unit transportation costs than the average of our transportation portfolio, as well as an increase in the proportion of gathering and compression expenses provided to us by Antero Midstream. Such expenses are eliminated in consolidation.

Gathering and Processing. Revenue for the gathering and processing segment increased from $220 million for the nine months ended September 30, 2016 to $291 million for the nine months ended September 30, 2017, an increase of $71 million, or 32%. Gathering revenues increased by $47 million from the prior year period and compression revenues increased by $24 million as additional wells on production increased throughput volumes. Total operating expenses related to the gathering and processing segment increased from $102 million for the nine months ended September 30, 2016 to $123 million for the nine months ended September 30, 2017 primarily as a result of increases in direct operating and depreciation expenses due to a larger base of gathering and compression assets.

In May 2016, Antero Midstream purchased a 15% equity interest in a regional gathering pipeline. In February 2017, Antero Midstream formed the Joint Venture with MarkWest, which provides natural gas processing and fractionation services. Equity in earnings of unconsolidated affiliates of $2 million and $13 million for the nine months ended September 30, 2016 and 2017, respectively, represents the portion of the net income from these investments which is allocated to Antero Midstream based on its equity interests. The increase was due to a full nine months of investment income in the regional gathering pipeline during the nine months ended September 30 2017, as opposed to five months during the nine months ended September 30, 2016, and the commencement of operations of the Joint Venture in February 2017.

Water Handling and Treatment. Revenue for the water handling and treatment segment increased from $204 million for the nine months ended September 30, 2016 to $271 million for the nine months ended September 30, 2017, an increase of $67 million, or 33%. The increase was due to an increase in the volume of water used per well in our advanced completions during the nine months ended September 30, 2017 as compared to the nine months ended September 30, 2016, as well as an increase in other fluid handling services The volume of water delivered through the systems increased from 31.3 MMBbls for the nine months ended September 30, 2016 to 42.1 MMBbls for the nine months ended September 30, 2017. Operating expenses for the water handling and treatment segment increased from $148 million for the nine months ended September 30, 2016 to $182 million for the nine months ended September 30, 2017, primarily due to the increase in other fluid handling services.

Marketing. Where permitted, we purchase and sell third-party natural gas and NGLs and market our excess firm transportation capacity, or engage third parties to conduct these activities on our behalf, in order to optimize the revenues from these transportation agreements. We have entered into long-term firm transportation agreements for a significant portion of our current and expected future production in order to secure guaranteed capacity to favorable markets. Marketing revenues of $287 million and $167 million and expenses of $379 million and $246 million for the nine months ended September 30, 2016 and 2017, respectively, relate to these

activities. Net losses on our marketing activities were $92 million and $79 million for the nine months ended September 30, 2016 and 2017, respectively. Marketing costs include firm transportation costs related to current excess capacity as well as the cost of third-party purchased gas and NGLs. This includes firm transportation costs of $96 million and $74 million for the nine months ended September 30, 2016 and 2017, respectively, related to unutilized excess capacity which decreased due to the assumption of certain unutilized firm transportation capacity by a third party beginning July 1, 2016.

Capital Resources and Liquidity

Historically, our primary sources of liquidity have been through issuances of debt and equity securities, borrowings under the Prior Credit Facility and Prior Midstream Facility, asset sales, and net cash provided by operating activities. Our primary use of cash has been for the exploration, development, and acquisition of natural gas, NGLs, and oil properties, as well as for development of gathering systems and facilities, and fresh water handling and wastewater treatment infrastructure. As we pursue the development of our reserves, we continually monitor what capital resources, including equity and debt financings, are available to meet our future financial obligations, planned capital expenditure activities, and liquidity requirements. Our future success in growing our proved reserves and production will be highly dependent on the capital resources available to us.

We believe that funds from operating cash flows and available borrowings under the Credit Facility and Midstream Facility, or capital market transactions, will be sufficient to meet our cash requirements, including normal operating needs, debt service obligations, capital expenditures, and commitments and contingencies for at least the next 12 months. For more information on our outstanding indebtedness, see Note 5 to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

The following table summarizes our cash flows for the nine months ended September 30, 2016 and 2017:

	Nine Months Ended September 30,	
(in thousands)	**2016**	**2017**
Net cash provided by operating activities	$ 905,697	1,692,808
Net cash used in investing activities	(1,974,667)	(1,948,307)
Net cash provided by financing activities	1,064,009	247,583
Net decrease in cash and cash equivalents	$ (4,961)	(7,916)

Cash Flow Provided by Operating Activities

Net cash provided by operating activities was $906 million and $1.7 billion for the nine months ended September 30, 2016 and 2017, respectively. The increase in cash flows from operations from the nine months ended September 30, 2016 to the nine months ended September 30, 2017 was primarily due to $750 million of proceeds from the partial monetization of certain of our natural gas hedges. See "—Deleveraging Activities" for further discussion.

Our net operating cash flow is sensitive to many variables, the most significant of which is the volatility of natural gas, NGLs, and oil prices, as well as volatility in the cash flows attributable to settlement of our commodity derivatives. Prices for natural gas, NGLs, and oil are primarily determined by prevailing market conditions. Regional and worldwide economic activity, weather, infrastructure capacity to reach markets, and other variables influence the market conditions for these products. These factors are beyond our control and are difficult to predict. For additional information on the impact of changing prices on our financial position, see "Item 3. Quantitative and Qualitative Disclosures About Market Risk."

Cash Flow Used in Investing Activities

Cash flows used in investing activities decreased from $2.0 billion for the nine months ended September 30, 2016 to $1.9 billion for the nine months ended September 30, 2017, primarily due to decreases in acquisitions and drilling and completion costs, partially offset by increases Antero Midstream's investments in the Joint Venture and gathering and compression assets during the nine months ended September 30, 2017. During the nine months ended September 30, 2017, our cash flows used in investing activities included $947 million for drilling and completion costs, $182 million for undeveloped leasehold additions, $179 million for acquisitions, $143 million for water handling and treatment systems, $255 million for gathering and compression systems, $217 million for investments in the Joint Venture, and $11 million for other property and equipment. During the nine months ended September 30, 2016, our cash flows used in investing activities included $1.0 billion for drilling and completion costs, $106 million for undeveloped leasehold additions, $519 million for acquisitions, $137 million for water handling and treatment systems, $154 million for gathering and compression systems, $45 million for a 15% equity interest in a regional gathering pipeline, and $2 million for other property and equipment.

Our capital budget for 2017 is $1.5 billion, which does not include the capital budget of $800 million for Antero Midstream, our consolidated subsidiary. Our capital budget may be adjusted as business conditions warrant as the amount, timing, and allocation of capital expenditures is largely discretionary and within our control. If natural gas, NGLs, and oil prices decline to levels below our acceptable levels, or costs increase to levels above our acceptable levels, we could choose to defer a significant portion of our budgeted capital expenditures until later periods to achieve the desired balance between sources and uses of liquidity, and to prioritize capital projects that we believe have the highest expected returns and potential to generate near-term cash flows. We routinely monitor and adjust our capital expenditures in response to changes in commodity prices, availability of financing, drilling and acquisition costs, industry conditions, the availability of rigs, success or lack of success in drilling activities, contractual obligations, internally generated cash flows, and other factors both within and outside our control.

Cash Flow Provided by Financing Activities

Net cash flows provided by financing activities decreased from $1.1 billion for the nine months ended September 30, 2016 to $248 million for the nine months ended September 30, 2017, primarily due to issuances of common stock by Antero during the nine months ended September 30, 2016 to fund property acquisitions, as well as repayments on Antero's Prior Credit Facility during the nine months ended September 30, 2017 using proceeds from the hedge monetizations and sale of Antero Midstream common units owned by Antero described under "—Deleveraging Activities." During the nine months ended September 30, 2017, our cash flows provided by financing activities included proceeds of $311 million from the sale of Antero Midstream common units owned by Antero and net proceeds from the issuance of common units in Antero Midstream of $249 million (including $26 million issued under the Distribution Agreement), partially offset by net repayments on our revolving credit facilities of $198 million, distributions of $102 million to noncontrolling interest owners in Antero Midstream and other items totaling $12 million. During the nine months ended September 30, 2016, our cash flows provided by financing activities included proceeds of $837 million from the issuance of common stock, proceeds of $178 million from the sale of Antero Midstream common units owned by Antero, proceeds of $650 million from Antero Midstream's issuance of its 5.375% senior notes due 2024, and proceeds of $20 million from the sale of common units by Antero Midstream under the Distribution Agreement, partially offset by net repayments on our revolving credit facilities of $552 million, distributions of $51 million to noncontrolling interest owners in Antero Midstream, and other items totaling $18 million.

As a result of the aforementioned deleveraging activities, the balance outstanding under Antero's Prior Credit Facility had a net decrease from $930 million at June 30, 2017 to $25 million at September 30, 2017. The balance outstanding under the Prior Midstream Facility increased from $305 million at June 30, 2017 to $427 million at September 30, 2017.

Debt Agreements and Contractual Obligations

Antero Resources Senior Secured Revolving Credit Facility. Antero's Credit Facility is with a consortium of bank lenders. Borrowings under the Credit Facility are subject to borrowing base limitations based on the collateral value of our assets and are subject to regular semiannual redeterminations. At September 30, 2017, under the Prior Credit Facility, the borrowing base was $4.75 billion and lender commitments were $4.0 billion. The next redetermination of the borrowing base is scheduled to occur in March 2018. At September 30, 2017, we had $25 million of borrowings and $700 million of letters of credit outstanding under the Prior Credit Facility, with a weighted average interest rate of 4.75%. At December 31, 2016, we had $440 million of borrowings and $710 million of letters of credit outstanding under the Prior Credit Facility, with a weighted average interest rate of 2.44%. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the maturity of any series of Antero's senior notes, unless such series of senior notes is refinanced.

Under the Credit Facility, "Investment Grade Period" is a period that, as long as no event of default has occurred, commences when Antero elects to give notice to the Administrative Agent that Antero has received at lease one of (i) a BBB- or better rating from Standard and Poor's and (ii) a Baa3 or better rating from Moody's (an "Investment Grade Rating"). An Investment Grade Period can end at Antero's election. During any period that is not an Investment Grade Period, the Credit Facility requires Antero and its restricted subsidiaries to maintain the following two financial ratios as of the end of each fiscal quarter:

- a current ratio, which is the ratio of our current assets (including any unused borrowing base under the facilities and excluding derivative assets) to our current liabilities (excluding derivative liabilities), of not less than 1.0 to 1.0; and

- an interest coverage ratio, which is the ratio of EBITDAX (as defined by the credit facility agreement) to interest expense over the most recent four quarters, of not less than 2.5 to 1.0.

During an Investment Grade Period, the Credit Facility requires Antero and its restricted subsidiaries to maintain the following three financial ratios as of the end of each fiscal quarter:

- a current ratio, which is the ratio of our current assets (including any unused borrowing base under the facilities and excluding derivative assets) to our current liabilities (excluding derivative liabilities), of not less than 1.0 to 1.0;

- a ratio of total Indebtedness (as defined by the credit facility agreement) to EBITDAX (as defined by the credit facility agreement) of not more than 4.25 to 1.00; and

- a ratio of PV-9 reflected in the most recently delivered reserve report to its total Indebtedness of not less than 1.50 to 1.00, but only if Antero does not have both (i) an unsecured rating from Moody's of Baa3 or better and (ii) an unsecured rating from S&P of BBB- or better.

We were in compliance with such covenants and ratios as determined by the Prior Credit Facility as of December 31, 2016 and September 30, 2017. The actual borrowing capacity available to us may be limited by the financial ratio covenants. At September 30, 2017, our current ratio was 5.73 to 1.0 (based on the $4.5 billion borrowing base under the Credit Facility) and our interest coverage ratio was 9.01 to 1.0.

Midstream Credit Facility. Antero Midstream has a secured revolving credit facility among Antero Midstream, certain lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, letter of credit issuer, and swing line lender. The Midstream Facility provides for lender commitments of $1.5 billion and for a letter of credit sublimit of $150 million. At September 30, 2017, Antero Midstream had a total outstanding balance under the Prior Midstream Facility of $427 million, with a weighted average interest rate of 2.82%. At December 31, 2016, Antero Midstream had a total outstanding balance under the Prior Midstream Facility of $210 million, with a weighted average interest rate of 2.23%. The Midstream Facility matures on October 26, 2022.

Senior Notes. Please refer to Note 5 to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q and to "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the year ended December 31, 2016 for information on our senior notes.

We may, from time to time, seek to retire or purchase our outstanding debt through cash purchases and/or exchanges for equity securities, in open market purchases, privately negotiated transactions, or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions, and other factors. The amounts involved could be material.

For more information on the terms, conditions, and restrictions under the Prior Credit Facility, the Prior Midstream Facility, and senior unsecured notes, please refer to our Annual Report on Form 10-K for the year ended December 31, 2016 on file with the SEC.

Contractual Obligations. A summary of our contractual obligations as of September 30, 2017 is provided in the table below. Contractual obligations listed exclude minimum fees that we will pay to Antero Midstream, our consolidated subsidiary, under gathering and compression, and water services agreements. Future capital contributions to unconsolidated affiliates are excluded from the table as neither the amounts nor the timing of the obligations can be determined in advance.

	Remainder	Year Ended December 31,						
(in millions)	of 2017	2018	2019	2020	2021	2022	Thereafter	Total
Antero Credit Facility(1)	$ —	—	—	—	25	—	—	25
Antero Midstream Facility(1)	—	—	—	—	—	427	—	427
Antero senior notes—principal(2)	—	—	—	—	1,000	1,100	1,350	3,450
Antero senior notes—interest(2)	77	182	182	182	155	129	111	1,018
Antero Midstream senior notes—principal(2)	—	—	—	—	—	—	650	650
Antero Midstream senior notes—interest(2)	—	35	35	35	35	35	70	245
Drilling rig and completion service commitments(3)	28	80	41	—	—	—	—	149
Firm transportation (4)	135	886	1,107	1,127	1,106	1,053	9,635	15,049
Processing, gathering, and compression services (5)	109	401	340	337	321	317	1,502	3,327
Office and equipment leases	4	13	11	9	8	8	17	70
Asset retirement obligations(6)	—	—	—	—	—	—	38	38
Total	$ 353	1,597	1,716	1,690	2,650	3,069	13,373	24,448

(1) Includes outstanding principal amounts at September 30, 2017. This table does not include future commitment fees, interest expense, or other fees on our Credit Facility or the Midstream Facility because they are floating rate instruments and we cannot determine with accuracy the timing of future loan advances, repayments, or future interest rates to be charged. The maturity date of Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the maturity of any series of Antero's senior notes, unless such series of notes is refinanced. The maturity date of the Midstream Facility is October 26, 2022

(2) Antero senior notes include the 5.375% notes due 2021, the 5.125% notes due 2022, the 5.625% notes due 2023, and the 5.00% notes due 2025. Antero Midstream senior notes include the 5.375% notes due 2024.

(3) Includes contracts for services provided by drilling rigs and completion fleets which expire at various dates from March 2018 through February 2020. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests.

(4) Includes firm transportation agreements with various pipelines in order to facilitate the delivery of our production to market. These contracts commit us to transport minimum daily natural gas or NGLs volumes at negotiated rates, or pay for any deficiencies at specified reservation fee rates. The amounts in this table reflect our minimum daily volumes at the reservation fee rates. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests.

(5) Contractual commitments for processing, gathering, and compression services agreements represent minimum commitments under long-term agreements. This includes fees to be paid to the Joint Venture owned by Antero Midstream and MarkWest, as well as Antero Midstream's commitments for the construction of its advanced wastewater treatment complex. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests. The table does not include intracompany commitments.

(6) Represents the present value of our estimated asset retirement obligations. Neither the ultimate settlement amounts nor the timing of our asset retirement obligations can be precisely determined in advance; however, we believe it is likely that a very small amount of these obligations may be settled within the next five years.

Non-GAAP Financial Measures

"Adjusted EBITDAX" is a non-GAAP financial measure that we define as net income or loss, including noncontrolling interests, before interest expense, interest income, derivative fair value gains or losses (excluding net cash receipts or payments on derivative instruments included in derivative fair value gains or losses), taxes, impairment, depletion, depreciation, amortization, and accretion, exploration expense, franchise taxes, equity-based compensation, gain or loss on early extinguishment of debt, and gain or loss on sale of assets. Adjusted EBITDAX also includes distributions from unconsolidated affiliates and excludes equity in earnings or losses of unconsolidated affiliates.

"Adjusted EBITDAX," as used and defined by us, may not be comparable to similarly titled measures employed by other companies and is not a measure of performance calculated in accordance with GAAP. Adjusted EBITDAX should not be considered in isolation or as a substitute for operating income, net income or loss, cash flows provided by operating, investing, and financing activities, or other income or cash flow statement data prepared in accordance with GAAP. Adjusted EBITDAX provides no information regarding a company's capital structure, borrowings, interest costs, capital expenditures, working capital movement, or tax position. Adjusted EBITDAX does not represent funds available for discretionary use because those funds may be required for debt service, capital expenditures, working capital, income taxes, exploration expenses, and other commitments and obligations. However, our management team believes Adjusted EBITDAX is useful to an investor in evaluating our financial performance because this measure:

- is widely used by investors in the oil and natural gas industry to measure a company's operating performance without regard to items excluded from the calculation of such term, which may vary substantially from company to company depending upon accounting methods and the book value of assets, capital structure, and the method by which assets were acquired, among other factors;

- helps investors to more meaningfully evaluate and compare the results of our operations from period to period by removing the effect of our capital structure from our operating structure; and

- is used by our management team for various purposes, including as a measure of operating performance, in presentations to our Board, and as a basis for strategic planning and forecasting. Adjusted EBITDAX is also used by our Board as a performance measure in determining executive compensation. Adjusted EBITDAX, as defined under the Credit Facility, is used by our lenders pursuant to covenants under the Credit Facility and the indentures governing our senior notes.

There are significant limitations to using Adjusted EBITDAX as a measure of performance, including the inability to analyze the effects of certain recurring and non-recurring items that materially affect our net income or loss, the lack of comparability of results of operations of different companies, and the different methods of calculating Adjusted EBITDAX reported by different companies.

"Segment Adjusted EBITDAX" is also used by our management team for various purposes, including as a measure of operating performance of our segments and as a basis for strategic planning and forecasting. Segment Adjusted EBITDAX is a non-GAAP financial measure that we define as operating income or loss before derivative fair value gains or losses (excluding net cash receipts or payments on derivative instruments included in derivative fair value gains or losses), impairment, depletion, depreciation, amortization, and accretion, exploration expense, franchise taxes, equity-based compensation, gain or loss on early extinguishment of debt, gain or loss on sale of assets, and gain or loss on changes in the fair value of contingent acquisition consideration. Segment Adjusted EBITDAX also includes distributions received from unconsolidated affiliates. Operating income or loss represents net income or loss, including noncontrolling interests, before interest expense and interest income, income taxes, and equity in earnings of unconsolidated affiliates. Operating income is the most directly comparable GAAP financial measure to Segment Adjusted EBITDAX because we do not account for income tax expense or interest expense on a segment basis.

The following tables represent a reconciliation of our operating income (loss) to Segment Adjusted EBITDAX for the three and nine months ended September 30, 2016 and 2017 (in thousands):

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2016:						
Operating income (loss)	$ 454,347	44,550	29,492	(17,535)	(43,522)	467,332
Commodity derivative fair value gains	(530,334)	—	—	—	—	(530,334)
Gains on settled derivatives	196,712	—	—	—	—	196,712
Depletion, depreciation, amortization, and accretion	173,363	18,540	7,838	—	—	199,741
Impairment of unproved properties	11,753	—	—	—	—	11,753
Exploration expense	1,166	—	—	—	—	1,166
Loss (gain) on change in fair value of contingent acquisition consideration	(3,527)	—	3,527	—	—	—
Equity-based compensation expense	19,781	5,214	1,386	—	—	26,381
Segment and consolidated Adjusted EBITDAX	$ 323,261	68,304	42,243	(17,535)	(43,522)	372,751

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended September 30, 2017:						
Operating income (loss)	$ (86,020)	58,595	24,352	(28,117)	(40,862)	(72,052)
Commodity derivative fair value losses	65,957	—	—	—	—	65,957
Gains on settled derivatives (1)	61,479	—	—	—	—	61,479
Depletion, depreciation, amortization, and accretion	176,846	22,027	8,753	—	—	207,626
Impairment of unproved properties	41,000	—	—	—	—	41,000
Exploration expense	1,599	—	—	—	—	1,599
Loss (gain) on change in fair value of contingent acquisition consideration	(2,556)	—	2,556	—	—	—
Equity-based compensation expense	19,248	5,111	2,088	—	—	26,447
Distributions from unconsolidated affiliates	—	4,300	—	—	—	4,300
Segment and consolidated Adjusted EBITDAX	$ 277,553	90,033	37,749	(28,117)	(40,862)	336,356

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2016:						
Operating income (loss)	$ (326,450)	117,314	56,241	(91,327)	(99,570)	(343,792)
Commodity derivative fair value gains	(125,624)	—	—	—	—	(125,624)
Gains on settled derivatives	813,559	—	—	—	—	813,559
Depletion, depreciation, amortization, and accretion	515,148	52,780	21,975	—	—	589,903
Impairment of unproved properties	47,223	—	—	—	—	47,223
Exploration expense	3,289	—	—	—	—	3,289
Loss (gain) on change in fair value of contingent acquisition consideration	(10,384)	—	10,384	—	—	—
Equity-based compensation expense	56,301	14,902	4,464	—	—	75,667
State franchise taxes	39	—	—	—	—	39
Segment and consolidated Adjusted EBITDAX	$ 973,101	184,996	93,064	(91,327)	(99,570)	1,060,264

	Exploration and production	Gathering and processing	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Nine months ended September 30, 2017:						
Operating income (loss)	$ 513,825	167,719	89,044	(79,639)	(137,915)	553,034
Commodity derivative fair value gains	(458,459)	—	—	—	—	(458,459)
Gains on settled derivatives (1)	137,392	—	—	—	—	137,392
Depletion, depreciation, amortization, and accretion	523,547	64,445	24,831	—	—	612,823
Impairment of unproved properties	83,098	—	—	—	—	83,098
Exploration expense	5,510	—	—	—	—	5,510
Loss (gain) on change in fair value of contingent acquisition consideration	(9,672)	—	9,672	—	—	—
Equity-based compensation expense	58,489	14,937	5,499	—	—	78,925
Distributions from unconsolidated affiliates	—	10,120	—	—	—	10,120
Segment and consolidated Adjusted EBITDAX	$ 853,730	257,221	129,046	(79,639)	(137,915)	1,022,443

(1) Gains on settled derivatives for the three and nine months ended September 30, 2017 do not include proceeds of $750 million related to derivatives which were partially monetized prior to their settlement dates. See "—Deleveraging Activities" for further discussion.

The following table represents a reconciliation of our net income, including noncontrolling interest, to consolidated Adjusted EBITDAX and a reconciliation of consolidated Adjusted EBITDAX to net cash provided by operating activities per our consolidated statements of cash flows for the three and nine months ended September 30, 2016 and 2017:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2016	2017	2016	2017
Net income (loss) including noncontrolling interest	$ 268,196	(90,000)	(296,644)	255,523
Commodity derivative fair value (gains) losses(1)	(530,334)	65,957	(125,624)	(458,459)
Gains on settled derivatives(1)(2)	196,712	61,479	813,559	137,392
Interest expense	59,755	70,059	185,634	205,311
Income tax expense (benefit)	140,924	(45,078)	(230,755)	105,087
Depletion, depreciation, amortization, and accretion	199,741	207,626	589,903	612,823
Impairment of unproved properties	11,753	41,000	47,223	83,098
Exploration expense	1,166	1,599	3,289	5,510
Equity-based compensation expense	26,381	26,447	75,667	78,925
Equity in earnings of unconsolidated affiliates	(1,543)	(7,033)	(2,027)	(12,887)
Distributions from unconsolidated affiliates	—	4,300	—	10,120
State franchise taxes	—	—	39	—
Consolidated Adjusted EBITDAX	372,751	336,356	1,060,264	1,022,443
Interest expense	(59,755)	(70,059)	(185,634)	(205,311)
Exploration expense	(1,166)	(1,599)	(3,289)	(5,510)
Changes in current assets and liabilities	17,327	29,899	35,939	130,089
State franchise taxes	—	—	(39)	—
Proceeds from derivative monetizations	—	749,906	—	749,906
Other non-cash items	(2,166)	719	(1,544)	1,191
Net cash provided by operating activities	$ 326,991	1,045,222	905,697	1,692,808

(1) The adjustments for the derivative fair value gains and losses and gains on settled derivatives have the effect of adjusting net income from operations for changes in the fair value of unsettled derivatives, which are recognized at the end of each accounting period. As a result, Adjusted EBITDAX only reflects derivatives which settled, or were monetized, during the period.

(2) Gains on settled derivatives for the three and nine months ended September 30, 2017 do not include proceeds of $750 million related to derivatives which were partially monetized prior to their settlement dates. See "—Deleveraging Activities" for further discussion.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. Certain accounting policies involve judgments and uncertainties to such an extent that there is reasonable likelihood that materially different amounts could have been reported under different conditions, or if different assumptions had been used. We evaluate our estimates and assumptions on a regular basis. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates and assumptions used in preparation of our consolidated financial statements. Our more significant accounting policies and estimates include the successful efforts method of accounting for our production activities, estimates of natural gas, NGLs, and oil reserve quantities and standardized measures of future cash flows, and impairment of proved properties. We provide an expanded discussion of our more significant accounting policies, estimates and judgments in our 2016 Form 10-K. We believe these accounting policies reflect our more significant estimates and assumptions used in the preparation of our consolidated financial statements. Also, see Note 2 of the notes to our audited consolidated financial statements, included in our 2016 Form 10-K, for a discussion of additional accounting policies and estimates made by management.

We evaluate the carrying amount of our proved natural gas, NGLs, and oil properties for impairment on a geological reservoir basis whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. Under GAAP for successful efforts accounting, if the carrying amount exceeded the estimated undiscounted future net cash flows (measured using futures prices), we would estimate the fair value of our proved properties and record an impairment charge for any excess of the carrying amount of the properties over the estimated fair value of the properties. Due to the low commodity price environment at

September 30, 2017, we compared estimated undiscounted future net cash flows using futures pricing for our Utica and Marcellus Shale properties to the carrying values of those properties. Estimated undiscounted future net cash flows exceeded the carrying values at September 30, 2017 and thus, no further evaluation of the proved properties for impairment is required under GAAP. As a result, we have not recorded any impairment expenses associated with our Utica and Marcellus Basin proved properties during the three and nine months ended September 30, 2017. Additionally, we did not record any impairment expenses for proved properties during the years ended December 31, 2014, 2015, and 2016. Based on present futures commodity pricing, we currently do not anticipate having to record any impairment charges for our proved properties in the near future. We are unable, however, to predict commodity prices with any greater precision than the futures market.

New Accounting Pronouncements

On May 28, 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in GAAP when it becomes effective. The new standard becomes effective for the Company on January 1, 2018. The standard permits the use of either the retrospective or cumulative effect transition method. The Company has not yet selected a transition method, but expects that it will elect the cumulative effect method. To the extent applicable, upon adoption, we will be required to comply with expanded disclosure requirements, including the disaggregation of revenues to depict the nature and uncertainty of types of revenues, contract assets and liabilities, current period revenues previously recorded as a liability, performance obligations, significant judgments and estimates affecting the amount and timing of revenue recognition, determination of transaction prices, and allocation of transaction prices to performance obligations.

During the third quarter of 2017, the Company substantially completed its analysis of the impact of the standard on its contract types, and we do not believe that the adoption of ASU 2014-09 will have a material impact on its financial results. Currently, the Company is evaluating its disclosures to determine additional qualitative disclosures to provide under the standard. We continue to monitor relevant industry guidance regarding the implementation of ASU 2014-09 and will adjust our implementation strategies as necessary. We do not believe that adoption of the standard will impact our operational strategies, growth prospects, or cash flows.

On February 25, 2016, the FASB issued ASU No. 2016-02, *Leases*, which requires lessees to present nearly all leasing arrangements on the balance sheet as liabilities along with a corresponding right-of-use asset. The ASU will replace most existing lease guidance in GAAP when it becomes effective. The new standard becomes effective for the Company on January 1, 2019. Although early application is permitted, the Company does not plan to early adopt the ASU. The standard requires the use of the modified retrospective transition method. The Company is evaluating the effect that ASU 2016-02 will have on its consolidated financial statements and related disclosures. Currently, the Company is evaluating the standard's applicability to our various contractual arrangements. We believe that adoption of the standard will result in increases to our assets and liabilities on our consolidated balance sheet as well as changes to the presentation of certain operating expenses on our consolidated statement of operations, including the accelerated recognition of expenses attributable to certain of our leasing arrangements. However, we have not yet determined the extent of the adjustments that will be required upon implementation of the standard. We continue to monitor relevant industry guidance regarding the implementation of ASU 2016-02 and will adjust our implementation strategies as necessary. We do not believe that adoption of the standard will impact our operational strategies, growth prospects, or cash flows.

Off-Balance Sheet Arrangements

As of September 30, 2017, we did not have any off-balance sheet arrangements other than operating leases and contractual commitments for drilling rig and completion services, firm transportation, gas processing and fractionation, gathering, and compression services. See "—Debt Agreements and Contractual Obligations—Contractual Obligations" for our commitments under these agreements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

The primary objective of the following information is to provide forward-looking quantitative and qualitative information about our potential exposure to market risk. The term "market risk" refers to the risk of loss arising from adverse changes in natural gas, NGLs, and oil prices, as well as interest rates. These disclosures are not meant to be precise indicators of expected future losses, but rather indicators of reasonably possible losses. This forward-looking information provides indicators of how we view and manage our ongoing market risk exposures.

Commodity Hedging Activities

Our primary market risk exposure is in the price we receive for our natural gas, NGLs, and oil production. Pricing is primarily driven by spot regional market prices applicable to our U.S. natural gas production and the prevailing worldwide price for crude oil. Pricing for natural gas, NGLs, and oil has, historically, been volatile and unpredictable, and we expect this volatility to continue in the future. The prices we receive for our production depend on many factors outside of our control, including volatility in the differences between product prices at sales points and the applicable index price.

To mitigate some of the potential negative impact on our cash flows caused by changes in commodity prices, we enter into derivative financial instruments to receive fixed prices for a portion of our natural gas, NGLs, and oil production when management believes that favorable future prices can be secured. These contracts may include commodity price swaps whereby we will receive a fixed price and pay a variable market price to the contract counterparty, cashless price collars that set a floor and ceiling price for the hedged production, or basis differential swaps. These contracts are financial instruments, and do not require or allow for physical delivery of the hedged commodity. At September 30, 2017, the majority of our natural gas hedges were fixed price swaps at NYMEX pricing. The Company was not party to any collars as of or during the nine months ended September 30, 2017.

At September 30, 2017, we had in place natural gas, NGLs, and oil swaps covering portions of our projected production from 2017 through 2023. Our commodity hedge position as of September 30, 2017 is summarized in Note 9(a) to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q. Under the Credit Facility, we are permitted to hedge up to 75% of our projected production for the next 60 months. We may enter into hedge contracts with a term greater than 60 months, and for no longer than 72 months, for up to 65% of our estimated production. Based on our production and our fixed price swap contracts which settled during the nine months ended September 30, 2017, our revenues would have decreased by approximately $7.5 million for each $0.10 decrease per MMBtu in natural gas prices and $1.00 decrease per Bbl in oil and NGLs prices, excluding the effects of changes in the fair value of our derivative positions which remain open at September 30, 2017.

All derivative instruments, other than those that meet the normal purchase and normal sale scope exception, are recorded at fair market value in accordance with GAAP and are included in our consolidated balance sheets as assets or liabilities. The fair values of our derivative instruments are adjusted for non-performance risk. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment; therefore, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. We present total gains or losses on commodity derivatives (for both settled derivatives and derivative positions which remain open) within operating revenues as "Commodity derivative fair value gains (losses)."

Mark-to-market adjustments of derivative instruments cause earnings volatility but have no cash flow impact relative to changes in market prices until the derivative contracts are settled or monetized prior to settlement. We expect continued volatility in the fair value of our derivative instruments. Our cash flows are only impacted when the associated derivative contracts are settled or monetized by making or receiving payments to or from the counterparty. At September 30, 2017, the estimated fair value of our commodity derivative instruments was a net asset of $1.2 billion comprising current and noncurrent assets and liabilities. At December 31, 2016, the estimated fair value of our commodity derivative instruments was a net asset of $1.6 billion comprising current and noncurrent assets and liabilities.

By removing price volatility from a portion of our expected production through December 2023, we have mitigated, but not eliminated, the potential negative effects of changing prices on our operating cash flows for those periods. While mitigating the negative effects of falling commodity prices, these derivative contracts also limit the benefits we would receive from increases in commodity prices above the fixed hedge prices.

Counterparty and Customer Credit Risk

Our principal exposures to credit risk are through receivables resulting from the following: commodity derivative contracts ($1.2 billion at September 30, 2017); the sale and marketing of our oil and gas production ($234 million at September 30, 2017) which we market to energy companies, end users, and refineries; and joint interest receivables ($10 million at September 30, 2017).

By using derivative instruments that are not traded on an exchange to hedge our exposures to changes in commodity prices, we expose ourselves to the credit risk of our counterparties. Credit risk is the potential failure of the counterparty to perform under the terms of a derivative contract. When the fair value of a derivative contract is positive, the counterparty is expected to owe us, which creates credit risk. To minimize the credit risk in derivative instruments, it is our policy to enter into derivative contracts only with counterparties that are creditworthy financial institutions which management deems to be competent and competitive market makers. The creditworthiness of our counterparties is subject to periodic review. We have commodity hedges in place with fourteen different counterparties, twelve of which are lenders under our Credit Facility. The fair value of our commodity derivative contracts of approximately $1.2 billion at September 30, 2017 included the following derivative assets by bank counterparty: JP Morgan - $286 million; Morgan Stanley - $248 million; Citigroup - $184 million; Scotiabank - $157 million; Wells Fargo - $148 million; Canadian Imperial Bank of Commerce - $48 million; Toronto Dominion - $36 million; BNP Paribas - $24 million; Bank of Montreal - $16 million; Fifth Third - $13 million; SunTrust - $8 million; Capital One - $4 million; and Natixis - $1 million. The credit ratings of certain of these banks were downgraded several years ago because of their exposure to the sovereign debt crisis in Europe or various other economic factors. The estimated fair value of our commodity derivative assets has been risk-adjusted using a discount rate based upon the counterparties' respective published credit default swap rates (if available, or if not available, a discount rate based on the applicable Reuters bond rating) at September 30, 2017 for each of the European and American banks. We believe that all of these institutions, currently, are acceptable credit risks. Other than as provided by the Credit Facility, we are not required to provide credit support or collateral to any of our counterparties under our derivative contracts, nor are they required to provide credit support to us. As of September 30, 2017, we did not have any past-due receivables from, or payables to, any of the counterparties to our derivative contracts.

We are also subject to credit risk due to the concentration of our receivables from several significant customers for sales of natural gas, NGLs, and oil. Marketing receivables primarily result from sales of third-party gas and NGLs. We, generally, do not require our customers to post collateral. The inability or failure of our significant customers to meet their obligations to us, or their insolvency or liquidation, may adversely affect our financial results.

Joint interest receivables arise from our billing of entities who own partial interests in the wells we operate. These entities participate in our wells primarily based on their ownership in leased properties on which we drill. We have minimal control over deciding who participates in our wells.

Interest Rate Risks

Our primary exposure to interest rate risk results from outstanding borrowings under our Credit Facility and the Midstream Facility of our consolidated subsidiary, Antero Midstream. Each of these credit facilities has a floating interest rate. The average annualized interest rate incurred on the Prior Credit Facility and the Prior Midstream Facility during the nine months ended September 30, 2017 was approximately 3.17%. We estimate that a 1.0% increase in each of the applicable average interest rates for the nine months ended September 30, 2017 would have resulted in a $7.0 million increase in interest expense.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures and is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the SEC. Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of September 30, 2017 at a level of reasonable assurance.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended September 30, 2017 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.

Environmental

In March 2011, we received orders for compliance from federal regulatory agencies, including the U.S. Environmental Protection Agency, relating to certain of our activities in West Virginia. The orders allege that certain of our operations at several well sites are in non-compliance with certain environmental regulations, such as unpermitted discharges of fill material into wetlands or waters of the United States that are potentially in violation of the Clean Water Act. We have responded to all pending orders and are actively cooperating with the relevant agencies. We believe that these actions will result in monetary sanctions exceeding $100,000. We have had ongoing settlement discussions with the relevant agencies to resolve the orders for compliance, but we are unable to estimate the total amount of monetary sanctions to resolve such orders or costs to remediate these locations in order to bring them into compliance with applicable environmental laws and regulations. Our operations at these locations are not suspended, and management does not expect these matters to have a material adverse effect on our financial condition, results of operations, or cash flows.

SJGC

The Company is the plaintiff in a lawsuit against South Jersey Gas Company and South Jersey Resources Group, LLC (collectively, "SJGC") pending in United States District Court in Colorado. In March 2015, the Company filed suit against SJGC seeking relief for breach of contract and damages in the amounts that SJGC had short paid, and continued to short pay, the Company in connection with two nearly identical long term gas contracts. Under those contracts, SJGC are long term purchasers of 80,000 MMBtu/day of the Company's natural gas production. Deliveries under the contracts began in October 2011 and the term of the contracts continues through October 2019. The price for gas was based on specified indices in the contracts. Beginning in October 2014, SJGC began short paying the Company based on price indices unilaterally selected by SJGC and not the applicable index specified in the contracts. SJGC claimed that the index price specified in the contracts, and the index at which SJGC paid for deliveries from 2011 through September 2014, was no longer appropriate under the contracts because a market disruption event (as defined by the contract) had occurred and, as a result, a new index price was required to be determined by the parties. The Company rejected SJGC's contention that a market disruption event occurred. SJGC's actions constituted a breach of the contracts by failing to pay the Company based on the express price terms of the contracts and paying the Company based on unilaterally selected price indices in violation of the contracts' remedial provisions. On May 8, 2017, a jury in the United States District Court in Colorado returned a unanimous verdict finding in favor of Antero's positions in the lawsuit against SJGC. On July 21, 2017, final judgment on the jury's unanimous verdict was entered by the court. On August 18, 2017, SJGC filed post-judgment motions with the court, which are currently pending. If the court denies those motions, SJGC will have 30 days from the court's decision on these post-judgment motions to file an appeal. SJGC continues to short pay the Company based on indexes unilaterally selected by SJGC and not the index specified in the contract. Through September 30, 2017, the Company estimates that it is owed approximately $70 million (gross damages, including interest) more than SJGC has paid using the indices unilaterally selected by them. Substantially all of this amount has not been accrued in the Company's financial statements. The Company will vigorously seek recovery from SJGC of all underpayments and damages, including interest, based on the contracted price.

WGL

The Company and Washington Gas Light Company and WGL Midstream, Inc. (collectively, "WGL") were involved in a pricing dispute involving firm gas sales contracts executed June 20, 2014 (the "Contracts") that the Company began delivering gas under in January 2016. From January 2016 through July 2017, the aggregate daily gas volumes contracted for under the Contracts was 500,000 MMBtu/day, with the aggregate daily contracted volumes having increased to 600,000 MMBtu/day during the months of August and September 2017. The Company invoiced WGL based on the natural gas index price specified in the Contracts and WGL paid the Company based on that invoice price. However, WGL asserted that the index price was no longer appropriate under the Contracts and claimed that an undefined alternative index was more appropriate for the delivery point of the gas. In July 2016, the matter was referred to arbitration by the Colorado district court. In January 2017, after hearing a week of testimony and evidence, the arbitration panel ruled in the Company's favor. As a result, the index price has remained as specified in the Contracts and there will be no adjustments to the invoices that have been paid by WGL, nor will future invoices to WGL be adjusted based on the same claim rejected by the arbitration panel. The arbitration panel's award was confirmed by the Colorado district court on April 14, 2017.

In March of 2017, WGL filed a second lawsuit against the Company in Colorado district court alleging breach of contract and seeking damages of more than $30 million. In this lawsuit, WGL claimed that the Company breached its contractual obligations under the Contracts by failing to deliver "TCO pool" gas. In subsequent filings, WGL explained that its claims were based on an alleged

obligation that the Company must deliver gas to the Columbia IPP Pool ("IPP Pool"). WGL asserted this exact same claim in the arbitration and it was rejected by the arbitration panel. The arbitration panel specifically found that the Delivery Point under the Contracts was at a specific point in Braxton, West Virginia, not the IPP Pool. On August 24, 2017, the Colorado district court dismissed with prejudice WGL's claims against the Company in its second lawsuit and found that the Company had not breached its Contracts with WGL by allegedly failing to deliver to the IPP Pool. The Court also reaffirmed the arbitration panel's finding that the delivery point under the Contracts was not the IPP Pool. WGL has appealed this decision to the Colorado Court of Appeals decision and that appeal remains pending.

The Company is also actively engaged in pursuing cover damages against WGL based on WGL's failure to take receipt of all of the agreed quantities of gas required under the Contracts. WGL's failure to take the gas volumes specified in the Contracts is directly related to WGL's lack of primary firm transportation rights at the Delivery Point. The failures by WGL to take the gas began in April 2017 and have continued each month since in varying quantities. In defense of its conduct, WGL has asserted to the Company that their failure to receive gas is excused by (1) the Company's failure to deliver gas to the IPP Pool or (2) alleged instances of Force Majeure under the Contracts. However, as stated above, the alleged obligation that the Company must deliver gas to the IPP Pool was rejected by the arbitration panel and the Colorado district court. Further, the Contracts expressly prohibit a Force Majeure claim in circumstances in which the gas purchaser does not have primary firm transportation agreements in place to transport the purchased gas. In each instance that WGL has failed to receive the quantity of gas required under the Contracts, the Company has resold the quantities not taken and invoiced WGL for cover damages pursuant to the terms of the Contracts. WGL has refused to pay for the invoiced cover damages as required by the Contracts and has also short paid the Company for certain amounts of gas received by WGL. Through September 30, 2017, these damages amounted to approximately $65 million (gross damages, including interest). This amount has not been accrued in the Company's financial statements. The Company is currently pursuing its cover damages in a lawsuit filed in Colorado district court on October 24, 2017. WGL's failure to take receipt of all quantities of gas and resulting cover damages remains ongoing. The Company will continue to vigorously seek recovery of its cover damages and other unpaid amounts, including interest, as part of its claims against WGL.

Other

We are party to various other legal proceedings and claims in the ordinary course of our business. We believe that certain of these matters will be covered by insurance and that the outcome of other matters will not have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

Item 1A. Risk Factors.

We are subject to certain risks and hazards due to the nature of the business activities we conduct. For a discussion of these risks, see "Item 1A. Risk Factors" in our 2016 Form 10-K and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017. The risks described in our 2016 Form 10-K and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017 could materially and adversely affect our business, financial condition, cash flows, and results of operations. There have been no material changes to the risks described in our 2016 Form 10-K and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 and June 30, 2017. We may experience additional risks and uncertainties not currently known to us; or, as a result of developments occurring in the future, conditions that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, cash flows, and results of operations.

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

Issuer Purchases of Equity Securities

The following table sets forth our share purchase activity for each period presented:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Maximum Number of Shares that May Yet be Purchased Under the Plan
July 1, 2017 - July 31, 2017	3,017	$ 21.98	—	N/A
August 1, 2017 - August 31, 2017	—	$ —	—	N/A
September 1, 2017 - September 30, 2017	—	$ —	—	N/A

Shares purchased represent shares of our common stock transferred to us in order to satisfy tax withholding obligations incurred upon the vesting of Antero equity awards held by our employees.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information.

Amended and Restated Credit Facility

On October 26, 2017, we entered into an amendment and restatement of the Prior Credit Facility. See "—Debt Agreements—Revolving Credit Facility" for a description of the Credit Facility. The description of the Credit Facility is a summary and is qualified in its entirety by the terms of the Credit Facility. A copy of the Credit Facility is filed as Exhibit 10.1 hereto, and is incorporated herein by reference.

Disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934

Pursuant to Section 13(r) of the Securities Exchange Act of 1934, we, Antero Resources Corporation, may be required to disclose in our annual and quarterly reports to the Securities and Exchange Commission (the "SEC"), whether we or any of our "affiliates" knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities targeted by United State ("US") economic sanctions. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Because the SEC defines the term "affiliate" broadly, it includes any entity under common "control" with us (and the term "control" is also construed broadly by the SEC).

The description of the activities below has been provided to us by Warburg Pincus LLC ("Warburg"), affiliates of which: (i) beneficially own more than 10% of our outstanding common stock and/or are members of our board of directors, and (ii) beneficially own more than 10% of the equity interests of, and have the right to designate members of the board of directors of Santander Asset Management Investment Holdings Limited ("SAMIH"). SAMIH may therefore be deemed to be under common "control" with us; however, this statement is not meant to be an admission that common control exists.

The disclosure below relates solely to activities conducted by SAMIH and its affiliates. The disclosure does not relate to any activities conducted by us or by Warburg and does not involve our or Warburg's management. Neither we nor Warburg has had any involvement in or control over the disclosed activities, and neither we nor Warburg has independently verified or participated in the preparation of the disclosure. Neither we nor Warburg is representing as to the accuracy or completeness of the disclosure nor do we or Warburg undertake any obligation to correct or update it.

We understand that one or more SEC-reporting affiliates of SAMIH intends to disclose in its next annual or quarterly SEC report that:

(a) Santander UK plc ("Santander UK") holds two savings accounts and one current account for two customers resident in the United Kingdom ("UK") who are currently designated by the US under the Specially Designated Global Terrorist ("SDGT") sanctions program. Revenues and profits generated by Santander UK on these accounts in the first nine month period ended September 30, 2017 were negligible relative to the overall revenues and profits of Banco Santander SA.

(b) Santander UK holds two frozen current accounts for two UK nationals who are designated by the US under the SDGT sanctions program. The accounts held by each customer have been frozen since their designation and have remained frozen through the nine month period ended September 30, 2017. The accounts are in arrears (£1,844.73 in debit combined) and are currently being managed by Santander UK Collections & Recoveries department. No revenues or profits were generated by Santander UK on this account in the nine month period ended September 30, 2017.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation of Antero Resources Corporation (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K (Commission File No. 001-36120) filed on October 17, 2013).
3.2	Amended and Restated Bylaws of Antero Resources Corporation (incorporated by reference to Exhibit 3.2 to Current Report on Form 8-K (Commission File No. 001-36120) filed on October 17, 2013).
10.1*	Amended and Restated Credit Agreement, dated as of October 26, 2017, by and among Antero Resources Corporation, the lenders party thereto, and Wells Fargo Bank, National Association, as Administrative Agent.
31.1*	Certification of the Company's Chief Executive Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 7241).
31.2*	Certification of the Company's Chief Financial Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 7241).
32.1*	Certification of the Company's Chief Executive Officer Pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 1350).
32.2*	Certification of the Company's Chief Financial Officer Pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 1350).
101*	The following financial information from this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended September 30, 2017 formatted in XBRL (eXtensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations and Comprehensive Income (Loss), (iii) Condensed Consolidated Statements of Equity, (iv) Condensed Consolidated Statements of Cash Flows, and (v) Notes to the Condensed Consolidated Financial Statements, tagged as blocks of text.

The exhibits marked with the asterisk symbol (*) are filed or furnished with this Quarterly Report on Form 10-Q.

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.

ANTERO RESOURCES CORPORATION

By: /s/ GLEN C. WARREN, JR.
Glen C. Warren, Jr.
President, Chief Financial Officer and Secretary

Date: November 1, 2017

Exhibit 10.1

FIFTH AMENDED AND RESTATED CREDIT AGREEMENT

dated as of

October 26, 2017

among

ANTERO RESOURCES CORPORATION,
as Borrower,

CERTAIN SUBSIDIARIES OF BORROWER,
as Guarantors,

THE LENDERS PARTY HERETO,

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent,

JPMORGAN CHASE BANK, N.A. and
WELLS FARGO SECURITIES, LLC
as Joint Bookrunners, Joint Lead Arrangers
and Co-Syndication Agents

Senior Secured Credit Facility

J.P. MORGAN CHASE BANK, N.A.
as Lead Bookrunner

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EXHIBITS:

SCHEDULES:

THIS FIFTH AMENDED AND RESTATED CREDIT AGREEMENT dated as of October 26, 2017, among ANTERO RESOURCES CORPORATION, a Delaware corporation, (the "Borrower") CERTAIN SUBSIDIARIES OF BORROWER, as Guarantors, the LENDERS party hereto, JPMORGAN CHASE BANK, N.A., as Administrative Agent, and JPMORGAN CHASE BANK, N.A. and WELLS FARGO SECURITIES, LLC, as Joint Bookrunners, Joint Lead Arrangers, and Co-Syndication Agents.

WHEREAS, the Borrower has heretofore entered into that certain Fourth Amended and Restated Credit Agreement dated as of November 4, 2010, by and among Borrower, certain affiliates of the Borrower, the lenders party thereto, and the Administrative Agent, as amended, supplemented, or otherwise modified prior to the Effective Date (the "Existing Credit Agreement").

WHEREAS, (i) the Borrower has requested that the Existing Credit Agreement be amended and restated in its entirety, (ii) the Borrower has requested that the Lenders extend credit in the form of Loans made available to the Borrower and at any time and from time to time after the Effective Date subject to the Aggregate Commitment, (iii) the Borrower has requested that each Issuing Bank issue Letters of Credit (subject to the Aggregate Commitment) at any time and from time to time prior to the LC Maturity Date;

WHEREAS, on and after the Effective Date, the proceeds of the Loans will be used by the Borrower to pay the fees, expenses and transaction costs of the Transactions, and finance the working capital needs of the Borrower, including capital expenditures, and for general corporate purposes of the Borrower and the Guarantors, in the ordinary course of business, including the exploration, development and/or acquisition of Oil and Gas Interests, together with ancillary transportation, gathering, compression and processing assets and the marketing and sale of Hydrocarbons produced;

WHEREAS, the Lenders and each Issuing Bank are willing to make available to the Borrower such revolving credit and letter of credit facilities upon the terms and subject to the conditions set forth herein; and

NOW, THEREFORE, in consideration of the premises and the covenants and agreements contained herein, the parties hereto hereby agree as follows:

ARTICLE I
Definitions

Section 1.01 Defined Terms. As used in this Agreement, the following terms have the meanings specified below:

"ABR", when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are bearing interest at a rate determined by reference to the Alternate Base Rate.

"Acquisition" means, the acquisition by any Credit Party or any Restricted Subsidiary, whether by purchase, merger (and, in the case of a merger with any such Person, with such Person being the surviving corporation) or otherwise, of all or substantially all of the Equity Interest of, or the business, property or fixed assets of or business line or unit or a division of, any other Person primarily engaged in the business of exploring for, producing, transporting, processing and storing Crude Oil or Natural Gas or the acquisition by any Credit Party or any Restricted Subsidiary of property or assets consisting of Oil and Gas Interests. "Acquiring" and "Acquired" have meanings correlative thereto.

"Act" has the meaning assigned to such term in Section 11.17.

"Adjusted LIBO Rate" means, with respect to any Eurodollar Borrowing for any Interest Period, an interest rate *per annum* (rounded upwards, if necessary, to the next 1/16 of 1%) equal to (a) the LIBO Rate for such Interest Period multiplied by (b) the Statutory Reserve Rate.

"Administrative Agent" means JPMorgan Chase Bank, N.A., in its capacity as administrative agent for the Lenders hereunder.

"Administrative Questionnaire" means an Administrative Questionnaire in a form supplied by the Administrative Agent.

"Affiliate" means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

"Agency Site" means the electronic system established by the Administrative Agent to administer this Agreement.

"Agent Party" means the Administrative Agent or any of its Related Parties (collectively, the "Agent Parties").

"Aggregate Commitment" means, at any time, the sum of the Commitments of all the Lenders at such time, as such amount may be reduced or increased from time to time pursuant to Section 2.02 and Section 2.03; provided that (a) at any time that is not during an Investment Grade Period, such amount shall not exceed the lesser of (i) the Borrowing Base then in effect and (ii) the Maximum Facility Amount, and (b) at any time during an Investment Grade Period, such amount shall not exceed the Maximum Facility Amount. As of the Effective Date, the Aggregate Commitment is $2,500,000,000.

"Aggregate Credit Exposure" means, as of any date of determination, the sum of the outstanding principal amount of the Loans of all Lenders as of such date, plus the aggregate LC Exposure of all Lenders as of such date.

"Aggregate Unused Commitment" at any time shall equal the sum of the Unused Commitments of all the Lenders (except for any Defaulting Lenders) at such time.

"Agreement" means this Fifth Amended and Restated Credit Agreement, dated as of October 26, 2017, as it may be amended, supplemented or otherwise modified from time to time.

"Alternate Base Rate" means, for any day, a rate *per annum* equal to the greatest of (a) the Prime Rate in effect on such day, (b) the NYFRB Rate in effect on such day plus ½ of 1% and (c) the Adjusted LIBO Rate for a one month Interest Period on such day (or if such day is not a Business Day, the immediately preceding Business Day) plus 1%, provided that for the purpose of this definition, the Adjusted LIBO Rate for any day shall be based on the LIBO Screen Rate (or if the LIBO Screen Rate is not available for such one month Interest Period, the Interpolated Rate) at approximately 11:00 a.m. London time on such day. Any change in the Alternate Base Rate due to a change in the Prime Rate, the NYFRB Rate or the Adjusted LIBO Rate shall be effective from and including the effective date of such change in the Prime Rate, the NYFRB Rate or the Adjusted LIBO Rate, respectively. If the Alternate Base Rate is being used as an alternate rate of interest pursuant to Section 2.14 hereof, then the Alternate Base Rate shall be the greater of clause (a) and (b) above and shall be determined without reference to clause (c) above. For the avoidance of doubt, if the Alternate Base Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

"Antero Midstream" means Antero Midstream Partners, LP, a Delaware limited partnership.

"Anti-Corruption Laws" means all laws, rules, and regulations of any jurisdiction applicable to the Borrower or its Subsidiaries from time to time concerning or relating to bribery or corruption.

"Applicable Percentage" means, with respect to any Lender at any time, the percentage of the Aggregate Commitment represented by such Lender's Commitment at such time; provided that in the case of Section 2.20(c) only, when a Defaulting Lender exists, "Applicable Percentage" shall mean the percentage of the Aggregate Commitment (disregarding any Defaulting Lender's Commitment) represented by such Lender's Commitment. The initial amount of each Lender's Applicable Percentage is as set forth on Schedule 1.01 or in the Assignment and Assumption pursuant to which such Lender shall have assumed or agreed to provide its Commitment, as applicable. If the Aggregate Commitment has terminated or expired, the Applicable Percentages shall be determined based upon the Aggregate Commitment most recently in effect, giving effect to any assignments.

"Applicable Rate" shall mean, for any day, with respect to any ABR Loan, Eurodollar Loan, or Unused Commitment Fee, as the case may be,

(a) at any time other than during an Investment Grade Period, the rate per annum set forth in the grid below based upon the Borrowing Base Usage in effect on such day:

Borrowing Base Usage Grid

Borrowing Base Usage	X < 25%	¤ 25% X <50%	¤ 50% X <75%	¤ 75% X <90%	X ¤ 90%
Eurodollar Loans Rate	1.25%	1.50%	1.75%	2.00%	2.25%
ABR Loans Rate	0.25%	0.50%	0.75%	1.00%	1.25%
Unused Commitment Fee Rate	0.300%	0.300%	0.350%	0.375%	0.375%

and (b) at any time during an Investment Grade Period, the rate per annum set forth in the grid below based upon the higher of the ratings assigned to the Borrower by Moody's or S&P in effect on such day:

Ratings Grid

Credit Rating	¤ Baa1/BBB+	Baa2/BBB	Baa3/BBB-	o Ba1/BB+
Eurodollar Loans Rate	1.125%	1.25%	1.50%	1.75%
ABR Loans Rate	0.125%	0.25%	0.50%	0.75%
Unused Commitment Fee Rate	0.150%	0.200%	0.250%	0.300%

Each change in the Applicable Rate shall apply during the period commencing on the effective date of such change and ending on the date immediately preceding the effective date of the next change.

"Approved Counterparty" means, at any time and from time to time, (i) any Person engaged in the business of writing Hedging Contracts for commodity, interest rate or currency risk that has (or the credit support provider of such Person has), at the time Borrower or any Restricted Subsidiary enters into a Hedging Contract with such Person, a long term senior unsecured debt credit rating of A or better from S&P or A2 or better from Moody's or (ii) any Lender Counterparty.

"Approved Fund" has the meaning assigned to such term in Section 11.04.

"Approved Petroleum Engineer" means Ryder Scott Company, L.P., DeGolyer & MacNaughton or any other reputable firm of independent petroleum engineers selected by the Borrower and reasonably acceptable to the Administrative Agent.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an Eligible Assignee (with the consent of any party whose consent is required by Section 11.04), in the form of Exhibit A or any other form approved by the Administrative Agent.

"Availability Period" means the period from and including the Effective Date to but excluding the earlier of the Maturity Date and the date of termination of the Aggregate Commitment.

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

"Bail-In Legislation" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

"Bankruptcy Code" means Title 11 of the United States Code entitled "Bankruptcy".

"Bankruptcy Event" means, with respect to any Person, such Person becomes the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment, provided that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority, provided, further, that such ownership interest does not result in or provide such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Person (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person; provided, further, that the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian, or other similar official by a supervisory authority or regulator with respect to any Person under the Dutch Financial Supervision Act 2007 (as amended from time to time and including any successor legislation) shall not be deemed a Bankruptcy Event.

"Board" means the Board of Governors of the Federal Reserve System of the United States of America.

"Borrowing" means Loans of the same Type, made, converted or continued on the same date and, in the case of Eurodollar Loans, as to which a single Interest Period is in effect.

"Borrowing Base" means, (a) for the period from the Effective Date until the first Redetermination after the Effective Date, the Initial Borrowing Base and (b) at any time thereafter, an amount equal to the amount determined in accordance with Section 3.02, as the same may be redetermined, adjusted or reduced from time to time pursuant to Section 3.03 and Section 3.04.

"Borrowing Base Deficiency" means, as of any date, the amount, if any, by which the Aggregate Credit Exposure on such date exceeds the Borrowing Base in effect on such date; provided, that, for purposes of determining the existence and amount of any Borrowing Base Deficiency, obligations under any Letter of Credit will not be deemed to be outstanding to the extent such obligations are secured by cash in the manner contemplated by Section 2.06(j).

"Borrowing Base Properties" means the Oil and Gas Interests which have been evaluated by the Lenders and to which Lenders have given value for purposes of establishing the Borrowing Base.

"Borrowing Base Usage" means, as of any date and for all purposes, the quotient, expressed as a percentage, of (i) the Aggregate Credit Exposure as of such date, divided by (ii) the Borrowing Base as of such date.

"Borrowing Request" means a request by the Borrower for a Borrowing in accordance with Section 2.05.

"Business Day" means any day that is not a Saturday, Sunday or other day on which commercial banks in New York, New York or Houston, Texas are authorized or required by law to remain closed; provided that, when used in connection with a Eurodollar Loan or to determine LMIR, the term "Business Day" shall also exclude any day on which banks are not open for dealings in dollar deposits in the London interbank market.

"Capital Lease Obligations" of any Person means the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) real or personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases on a balance sheet of such Person under GAAP, and the amount of such obligations shall be the capitalized amount thereof determined in accordance with GAAP.

"Cash Collateral Account" means a deposit account with, and in the name of, the Administrative Agent, for the benefit of the Lenders, established and maintained for the deposit of cash collateral required under or in connection with this Agreement and the other Loan Documents.

"Cash Management Obligations" means, with respect to Borrower or Restricted Subsidiary, any obligations of such Person owed to any Lender or Affiliate of any Lender in respect of treasury management arrangements, depositary or other cash management services, including any treasury management line of credit, in each case, to the extent permitted under Section 7.01(d).

"Casualty Event" shall mean, with respect to any Collateral, (a) any damage to, destruction of, or other casualty or loss involving, any property or asset or (b) any seizure, condemnation, confiscation or taking under the power of eminent domain of, or any requisition of title or use of, or relating to, or any similar event in respect of, any property or asset.

"Change in Law" means (a) the adoption of any law, rule or regulation on the date of this Agreement, (b) any change in any law, rule or regulation or in the interpretation or application thereof by any Governmental Authority after the date of this Agreement or (c) compliance by any Lender (or, for purposes of Section 2.15(b), by any lending office of such Lender or by such Lender's holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the date of this Agreement; provided that, notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines, requirements or directives thereunder or issued in connection therewith or in the implementation thereof, and (y) all requests, rules, guidelines, requirements or directives promulgated by

the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted, issued or implemented.

"Change of Control" means (a) the acquisition of ownership, directly or indirectly, beneficially or of record, by any Person or group (within the meaning of the Securities Exchange Act of 1934 and the rules of the SEC thereunder as in effect on the date hereof) other than the Permitted Holders, of Equity Interests representing more than 35% of the aggregate ordinary voting power represented by the issued and outstanding Equity Interests of the Borrower; (b) occupation of a majority of the seats (other than vacant seats) on the board of directors of the Borrower by Persons who were not directors of the Borrower on the date of this Agreement or nominated, elected or appointed (or approved for nomination, election or appointment) by the board of directors of the Borrower.

"Charges" has the meaning assigned to such term in Section 11.16.

"Code" means the Internal Revenue Code of 1986, as amended from time to time.

"Collateral" means all assets, whether now owned or hereafter acquired by any Credit Party, in which a Lien is granted or purported to be granted to any Secured Party as security for any Obligation.

"Commitment" means, with respect to each Lender, the commitment of such Lender to make Loans and to acquire participations in Letters of Credit hereunder, in an aggregate amount at any one time outstanding not to exceed the amount set forth opposite such Lender's name on Schedule 1.01, or in the Assignment and Assumption Agreement or Lender Certificate pursuant to which such Lender shall have assumed or agreed to provide its Commitment, as applicable, as such Commitment may be (a) reduced from time to time pursuant to Section 2.02, (b) increased from time to time as a result of such Lender delivering a Lender Certificate pursuant to Section 2.03, and (c) reduced or increased from time to time pursuant to assignments by or to such Lender pursuant to Section 11.04; provided that any Lender's Commitment shall not at any time exceed the least of (i) such Lender's Applicable Percentage of the Maximum Facility Amount, (ii) such Lender's Applicable Percentage of the Borrowing Base then in effect, and (iii) such Lender's Applicable Percentage of the Aggregate Commitment.

"Commodity Exchange Act" means the Commodity Exchange Act (7 U.S.C. § 1 et seq.), as amended from time to time, and any successor statute.

"Consolidated" refers to the consolidation of any Person, in accordance with GAAP, with its properly consolidated Subsidiaries. References herein to a Person's consolidated financial statements, financial position, financial condition, liabilities, etc. refer to the consolidated financial statements, financial position, financial condition, liabilities, etc. of such Person and its properly consolidated Subsidiaries.

"Consolidated Current Assets" means, as of any date of determination, the total of (i) the Consolidated current assets of Borrower (excluding assets of any Consolidated Subsidiaries that are not Credit Parties), determined in accordance with GAAP as of such date and calculated on a Consolidated basis, plus, the Aggregate Unused Commitment as of such date (assuming that for purposes of this clause only, when calculating the Aggregate Unused Commitment as of any date not during an Investment Grade Period, each Lender's Commitment shall equal such Lender's Applicable Percentage of the Borrowing Base then in effect), (ii) less any non-cash assets required to be included in Consolidated current assets of Borrower and its Consolidated Subsidiaries that are Credit Parties as a result of the application of FASB Accounting Standards Codification 718, 815 or 410.

"Consolidated Current Liabilities" means, as of any date of determination, the total of (i) Consolidated current liabilities of Borrower (excluding liabilities of any Consolidated Subsidiaries that are not Credit Parties), as determined in accordance with GAAP as of such date and calculated on a Consolidated basis, (ii) less payments of principal on the Loans required to be repaid within one year from the time of calculation, (iii) less any non-cash obligations required to be included in Consolidated current liabilities of Borrower and its Consolidated Subsidiaries that are Credit Parties as a result of the application of FASB Accounting Standards Codification 718, 815 or 410, but shall expressly include any unpaid liabilities for cash charges or payments that have been incurred as a result of the termination of any Hedging Contract.

"Consolidated Current Ratio" means, as of any date of determination, the ratio of Consolidated Current Assets to Consolidated Current Liabilities as of such date.

"Consolidated EBITDAX" means for any period, EBITDAX of Borrower and its Restricted Subsidiaries that are Credit Parties on a Consolidated basis for such period.

"Consolidated Interest Expense" means for any period, without duplication, the aggregate of (a) all interest expense of Borrower and its Consolidated Subsidiaries that are Credit Parties as determined in accordance with GAAP, including (i) all interest, fees and costs payable with respect to the Indebtedness of such Persons to the extent treated as interest in accordance with GAAP (other than fees and costs which may be capitalized as transaction costs in accordance with GAAP) and (ii) the interest component of Capital Lease Obligations, to the extent treated as interest in accordance with GAAP, and (b) any interest paid in connection with the issuance or incurrence of any new Debt permitted hereunder to the extent that, pursuant to Accounting Standards Codification 470-60, such payments are not accounted for as interest expense, minus, to the extent included in such amount, (i) fees, costs, and expenses incurred in connection with the consummation of this Agreement, any amendment or other modification hereto from time to time and/or the issuance, incurrence, or repayment of any Indebtedness permitted hereunder and (ii) any cash interest expense in respect of indebtedness that has been defeased and/or discharged by the deposit of cash and/or cash equivalents in accordance with its terms.

"Consolidated Net Income" means for any period, the Consolidated net income (or loss) of Borrower and its Consolidated Subsidiaries that are Credit Parties, determined in accordance with GAAP; provided that there shall be excluded (a) any gain or loss from the sale of assets other than in the ordinary course of business, (b) any non-cash income, gains, losses or charges resulting from the application of FASB Accounting Standards Codifications 718, 815, 410, 360 and 350, but shall expressly include any cash charges or payments that have been incurred as a result of the termination of any Hedging Contract, (c) the income (or deficit) of any Person accrued prior to the date it becomes a Credit Party, or is merged into or consolidated with a Borrower or any of its Consolidated Subsidiaries, as applicable, (d) the income (or deficit) of any Person in which any other Person (other than the Borrower or any Credit Party) has an Equity Interest, except to the extent of the amount of dividends or other distributions actually paid to the Borrower or any of the Credit Parties during such period (which amount will be included in the calculation of Consolidated Net Income) regardless of the amount of income (or deficit) of such Person for such period and (e) the undistributed earnings of any Consolidated Subsidiary of Borrower, to the extent that the declaration or payment of dividends or similar distributions by such Consolidated Subsidiary is not at the time permitted by the terms of any contractual obligation (other than under any Loan Document) or by any law applicable to such Consolidated Subsidiary.

"Consolidated Subsidiaries" means, for any Person, any Subsidiary or other entity the accounts of which would be Consolidated with those of such Person in its Consolidated financial statements in accordance with GAAP.

"Control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. "Controlling" and "Controlled" have meanings correlative thereto.

"Counterpart Agreement" means a Counterpart Agreement substantially in the form of Exhibit C delivered by a Guarantor pursuant to Section 6.12.

"Credit Exposure" means, with respect to any Lender at any time, the sum of the outstanding principal amount of such Lender's Loans and its LC Exposure at such time.

"Credit Parties" means collectively, Borrower and each Guarantor and each individually, a "Credit Party".

"Crude Oil" means all crude oil and condensate.

"Default" means any event or condition which constitutes an Event of Default or which upon notice, lapse of time or both would, unless cured or waived, become an Event of Default.

"Defaulting Lender" means any Lender that (a) has failed, within two (2) Business Days of the date required to be funded or paid, to (i) fund any portion of its Loans, (ii) fund any portion of its participations in Letters of Credit or (iii) pay over to the Administrative Agent, the Issuing Bank or any Lender any other amount required to be paid by it hereunder, unless, in the case of clause (i) above, such Lender notifies the Administrative Agent in writing that such failure is the result of such Lender's good faith determination that a condition precedent to funding (specifically identified and including the particular default, if any) has not been satisfied, (b) has notified the Borrower, the Administrative Agent, the Issuing Bank or any Lender in writing, or has made a public statement to the effect, that it does not intend or expect to comply with any of its funding obligations under this Agreement (unless such writing or public statement indicates that such position is based on such Lender's good faith determination that a condition precedent (specifically identified and including the particular default, if any) to funding a Loan under this Agreement cannot be satisfied) or generally under other agreements in which it commits to extend credit, (c) has failed, within three (3) Business Days after request by the Administrative Agent, the Issuing Bank or any Lender, acting in good faith, to provide a certification in writing from an authorized officer of such Lender that it will comply with its obligations (and is financially able to meet such obligations) to fund prospective Loans and participations in then outstanding Letters of Credit under this Agreement, provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt by the Administrative Agent, the Issuing Bank or such Lender of such certification in form and substance satisfactory to it and the Administrative Agent, or (d) has become the subject of (A) a Bankruptcy Event or (B) a Bail-In Action.

"Departing Lender" means each lender under the Existing Credit Agreement that does not have a Commitment hereunder and is identified on Schedule 5.01 hereto.

"Disposition" or "Dispose" means the sale, transfer, license, lease, exchange or other disposition (including any sale and leaseback transaction and any forfeiture) of any property by any Person, including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith.

"Disqualified Stock" means any Equity Interest that, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable) or upon the happening of any event, matures or is mandatorily redeemable for any consideration other than other Equity Interests (which would not constitute Disqualified Stock), pursuant to a sinking fund obligation or otherwise, or is convertible or exchangeable for Debt or redeemable for any consideration other than other Equity Interests (which would

not constitute Disqualified Stock) at the option of the holder thereof, in whole or in part, on or prior to the date that is one year after the earlier of (a) the Maturity Date and (b) the date on which there are no Loans, LC Exposure or other obligations hereunder outstanding and all of the Commitments are terminated. For the avoidance of doubt, any such Equity Interest redeemable solely by (a) the sale of assets or (b) a Change of Control does not constitute Disqualified Stock.

"Dollars" or "$" refers to lawful money of the United States of America.

"Domestic Subsidiary" means, with respect to any Person, a subsidiary of such Person that is incorporated or formed under the laws of the United States of America, any state thereof or the District of Columbia.

"EBITDAX" means, with respect to any Person for any period, Consolidated Net Income for such period; plus without duplication and to the extent deducted in the calculation of Consolidated Net Income for such period, the sum of (a) any provision for (or less any benefit for) income or franchise Taxes; (b) Consolidated Interest Expense; (c) amortization, depletion, depreciation and exploration expense; and (d) any non-cash losses, expenses, impairments or charges (including losses arising from ceiling test writedowns, non-cash losses or charges resulting from the requirements of FASB Accounting Standards Codifications 718, 815, 410, 360 and 350, but excluding accruals of or reserves for cash charges for any future period); provided that cash payments made during such period or in any future period in respect of non-cash charges, expenses or losses, other than any such excluded charge, expense or loss described in the parenthetical to this clause (d) shall be subtracted from Consolidated Net Income in calculating EBITDAX for the period in which such payments are made; minus, to the extent included in the calculation of Consolidated Net Income, the sum of (i) interest income, (ii) any extraordinary income or gains; and (iii) any other non-cash income or gain, including non-cash income or gains resulting from the requirements of FASB Accounting Standards Codifications 718, 815, 410, 360 and 350, but excluding any items that represent the reversal of any accrual of, or cash reserve for, anticipated cash charges in any prior period that are described in clause (d) above; provided that, with respect to the determination of Borrower's compliance with the Interest Coverage Ratio set forth in Section 7.12(b) for any period, EBITDAX for such period shall be adjusted to give effect, on a pro forma basis and consistent with GAAP, to any Qualified Acquisitions or Qualified Dispositions made during such period as if such Qualified Acquisition or Qualified Disposition, as the case may be, was made at the beginning of such period.

"EEA Financial Institution" means (a) any institution established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clauses (a) of this definition, or (c) any institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Effective Date" means the date on which the conditions specified in Section 5.01 are satisfied (or waived in accordance with Section 11.02).

"Electronic System" means any electronic system, including e-mail, e-fax, Intralinks®, ClearPar®, Debt Domain, Syndtrak and any other Internet or extranet-based site, whether such electronic system is

owned, operated or hosted by the Administrative Agent or any Issuing Bank and any of its respective Related Parties or any other Person, providing for access to data protected by passcodes or other security system.

"Eligible Assignee" means any Person that qualifies as an assignee pursuant to Section 11.04(b)(i); provided that, notwithstanding the foregoing, "Eligible Assignee" shall not include (i) Borrower or any Affiliates or Subsidiaries of Borrower, or (ii) any Person organized outside the United States if Borrower would be required to pay withholding taxes on interest or principal owed to such Person.

"Eligible Contract Participant" means an "eligible contract participant" as defined in the Commodity Exchange Act and the regulations thereunder.

"Engineered Value" means, the value attributed to the Borrowing Base Properties for purposes of the most recent Redetermination of the Borrowing Base pursuant to Article III (or for purposes of determining the Initial Borrowing Base in the event no such Redetermination has occurred), based upon the discounted present value of the estimated net cash flow to be realized from the production of Hydrocarbons from the Borrowing Base Properties as set forth in the Reserve Report.

"Environmental Law" means all laws, rules, regulations, codes, ordinances, orders, decrees, judgments, injunctions, legally enforceable directives or binding agreements issued, promulgated or entered into by any Governmental Authority, relating in any way to the environment, preservation or reclamation of natural resources, the management, release or threatened release of any Hazardous Material or to human health and safety matters.

"Environmental Liability" means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines or penalties), of any Credit Party directly or indirectly resulting from or arising out of (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Materials into the environment or (e) any written contract or agreement pursuant to which liability is assumed or imposed with respect to any of the foregoing in clauses (a) through (d) above.

"Equity Interests" means shares of capital stock, partnership interests, membership interests in a limited liability company, beneficial interests in a trust or other equity ownership interests in a Person, and any warrants, options or other rights entitling the holder thereof to purchase or acquire any such equity interest.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended from time to time.

"ERISA Affiliate" means any trade or business (whether or not incorporated) that, together with any Credit Party, is treated as a single employer under Section 414(b) or (c) of the Code or, solely for purposes of Section 302 of ERISA and Section 412 of the Code, is treated as a single employer under Section 414 of the Code.

"ERISA Event" means (a) any "reportable event", as defined in Section 4043 of ERISA or the regulations issued thereunder with respect to a Plan (other than an event for which the 30 day notice period is waived); (b) the failure of any Plan to meet the minimum funding standards under Section 412 of the Code or Section 302 of ERISA; (c) the filing pursuant to Section 412(c) of the Code or Section 302(c) of ERISA of an application for a waiver of the minimum funding standard with respect to any Plan; (d) the incurrence by any Credit Party or any of its ERISA Affiliates of any liability under Title IV of ERISA with

respect to the termination of any Plan; (e) the receipt by any Credit Party or any ERISA Affiliate from the PBGC or a plan administrator of any notice relating to an intention to terminate any Plan or Plans or to appoint a trustee to administer any Plan; (f) the incurrence by any Credit Party or any of its ERISA Affiliates of any liability with respect to the withdrawal or partial withdrawal from any Plan or Multiemployer Plan; or (g) the receipt by any Credit Party or any ERISA Affiliate of any notice, or the receipt by any Multiemployer Plan from any Credit Party or any ERISA Affiliate of any notice, concerning the imposition of Withdrawal Liability or a determination that a Multiemployer Plan to which any Credit Party or ERISA Affiliate is obligated to contribute is, or is expected to be, insolvent or in reorganization, within the meaning of Title IV of ERISA.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

"Eurodollar", when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are bearing interest at a rate determined by reference to the Adjusted LIBO Rate.

"Event of Default" has the meaning assigned to such term in Article IX.

"Excluded Swap Obligation" means, with respect to any Guarantor individually determined on a Guarantor by Guarantor basis, any Swap Obligation if, and to the extent that, all or a portion of the Guarantee of such Guarantor of, or the grant by such Guarantor of a security interest to secure, such Swap Obligation (or any Guarantee thereof) is or becomes illegal under the Commodity Exchange Act or any rule, regulation or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) by virtue of such Guarantor's failure for any reason to constitute an Eligible Contract Participant at the time the Guarantee of such Guarantor or the grant of such security interest becomes effective with respect to such Swap Obligation. If a Swap Obligation arises under a master agreement governing more than one swap, such exclusion shall apply only to the portion of such Swap Obligation that is attributable to swaps for which such Guarantee or security interest is or becomes illegal.

"Excluded Taxes" means, with respect to the Administrative Agent, any Lender, the Issuing Bank or any other recipient of any payment to be made by or on account of any obligation of the Borrower hereunder, (a) income or franchise taxes imposed on (or measured by) its net income by the United States of America, or by the jurisdiction under the laws of which such recipient is organized or in which its principal office is located or, in the case of any Lender, in which its applicable lending office is located, (b) any branch profits taxes imposed by the United States of America or any similar tax imposed by any other jurisdiction in which Borrower is located, (c) in the case of a Foreign Lender (other than an assignee pursuant to a request by the Borrower under Section 2.19(b), any withholding tax that is imposed on amounts payable to such Foreign Lender at the time such Foreign Lender becomes a party to this Agreement (or designates a new lending office) or is attributable to such Foreign Lender's failure to comply with Section 2.17(f), except to the extent that such Foreign Lender (or its assignor, if any) was entitled, at the time of designation of a new lending office (or assignment), to receive additional amounts from the Borrower with respect to such withholding tax pursuant to Section 2.17(a), and Section 2.17(c) any withholding taxes that are imposed by FATCA.

"Existing Credit Agreement" means that certain Fourth Amended and Restated Credit Agreement dated as of November 4, 2010, by and among Borrower, certain affiliates of the Borrower, the lenders party thereto, and the Administrative Agent, as amended, supplemented, or otherwise modified prior to the Effective Date.

"Existing Hedging Contracts" means any Hedging Contracts entered into between any Credit Party and any Lender Counterparty prior to the Effective Date and in effect on the Effective Date.

"Existing Loans" means the loans and other extensions of credit outstanding under the Existing Credit Agreement as of the Effective Date.

"Existing Senior Notes" means, collectively, the (a) $1,000,000,000 aggregate principal amount of 5.375% Senior Notes, due November 1, 2021, issued by Borrower pursuant to that certain Indenture dated November 5, 2013, (b) $1,100,000,000 aggregate principal amount of 5.125% Senior Notes, due December 1, 2022, issued by Borrower pursuant to that certain Indenture dated May 6, 2014, (c) $750,000,000 aggregate principal amount of 5.625% Senior Notes, due June 1, 2023, issued by Borrower pursuant to that certain Indenture dated March 17, 2015, and (d) $600,000,000 aggregate principal amount of 5.00% Senior Notes, due March 1, 2025, issued by Borrower pursuant to that certain Indenture dated December 21, 2016, and, in each case, Guaranteed by Borrower's wholly-owned subsidiaries and certain of its Restricted Subsidiaries.

"FASB" means Financial Accounting Standards Board.

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof and any agreement entered into pursuant to Section 1471(b)(1) of the Code.

"Federal Funds Effective Rate" means, for any day, the rate calculated by the NYFRB based on such day's federal funds transactions by depositary institutions (as determined in such manner as the NYFRB shall set forth on its public website from time to time) and published on the next succeeding Business Day by the NYFRB as the federal funds effective rate, provided that if the Federal Funds Effective Rate shall be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"Fee Letter" means that certain fee letter, dated October 26, 2017, among the Borrower, the Administrative Agent and J.P. Morgan Securities LLC.

"Financial Officer" means the chief financial officer, principal accounting officer, treasurer or controller of any Credit Party. Any document delivered hereunder that is signed by a Financial Officer of a Credit Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Credit Party and such Financial Officer shall be conclusively presumed to have acted on behalf of such Credit Party.

"Foreign Lender" means (a) if the Borrower is a U.S. Person, a Lender that is not a U.S. Person, and (b) if the Borrower is not a U.S. Person, a Lender that is resident or organized under the laws of a jurisdiction other than that in which the Borrower is resident for tax purposes.

"GAAP" means generally accepted accounting principles in the United States of America.

"Governmental Authority" means the government of the United States of America, any other nation or any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity properly exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

"Guarantee" of or by any Person (in this definition, the "guarantor") means any obligation, contingent or otherwise, of the guarantor guaranteeing or having the economic effect of guaranteeing any

Indebtedness of any other Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of the guarantor, direct or indirect, (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation or to purchase (or to advance or supply funds for the purchase of) any security for the payment thereof, (b) to purchase or lease property, securities or services for the purpose of assuring the owner of such Indebtedness or other obligation of the payment thereof, (c) to maintain working capital, equity capital or any other financial statement condition or liquidity of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation or (d) as an account party in respect of any letter of credit or letter of guaranty issued to support such Indebtedness or obligation; provided, that the term Guarantee shall not include endorsements for collection or deposit in the ordinary course of business.

"Guaranteed Liabilities" has the meaning assigned to such term in Section 8.01.

"Guarantor" means each Restricted Subsidiary that is a party hereto or hereafter executes and delivers to the Administrative Agent and the Lenders, a Counterpart Agreement pursuant to Section 6.12 or otherwise.

"Hazardous Materials" means any substances regulated under any Environmental Law, whether as pollutants, contaminants, chemicals, industrial, toxic or hazardous substances or otherwise.

"Hedge Modification" means any amendment, modification, cancellation, sale, transfer, assignment, early termination, monetization or other disposition by any Credit Party of any Hedging Contract (including any Existing Hedging Contract) for Crude Oil, Natural Gas or Natural Gas Liquids.

"Hedging Contract" means any agreement with respect to any swap, forward, future or derivative transaction or option or similar agreement involving, or settled by reference to, one or more rates, currencies, commodities, equity or debt instruments or securities, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value or any similar transaction or any combination of these transactions; provided that no phantom stock or similar plan providing for payments only on account of services provided by current or former directors, officers, employees or consultants of the Credit Parties shall be a Hedging Contract.

"Hydrocarbons" means oil, gas, casinghead gas, drip gasoline, natural gasoline, condensate, distillate, liquid hydrocarbons, gaseous hydrocarbons, and all products refined or separated therefrom.

"Hydrocarbon Interests" means all rights, titles, interests and estates now or hereafter acquired in and to oil and gas leases, oil, gas and mineral leases, or other liquid or gaseous hydrocarbon leases, mineral fee interests, overriding royalty and royalty interests, net profit interests and production payment interests, including any reserved or residual interests of whatever nature.

"Impacted Interest Period" has the meaning assigned to it in the definition of "LIBO Rate".

"Indebtedness" of any Person means, without duplication, (a) all obligations for borrowed money or evidenced by a bond, debenture, note or similar instrument; (b) all accounts payable and all accrued expenses, liabilities or other obligations to pay the deferred purchase price of property or services; (c) all obligations or liabilities which (i) would under GAAP be shown on such Person's balance sheet as a liability, and (ii) are payable more than one year from the date of creation or incurrence thereof (other than reserves for taxes and reserves for contingent obligations); (d) all obligations or liabilities arising under Hedging Contracts (on a net basis to the extent netting is provided for in the applicable Hedging Contract), including any deferred premium obligations with respect to floors; (e) all Capital Lease Obligations; (f) all obligations or liabilities arising under conditional sales or other title retention agreements; (g) all obligations

or liabilities owing under direct or indirect guaranties of obligations of any other Person or otherwise constituting obligations to purchase or acquire or to otherwise protect or insure a creditor against loss in respect of obligations of any other Person (such as obligations under working capital maintenance agreements, agreements to keep-well, or agreements to purchase liabilities, assets, goods, securities or services), but excluding endorsements in the ordinary course of business of negotiable instruments in the course of collection; (h) all obligations (for example, repurchase agreements, mandatorily redeemable preferred stock (but not accrued dividends on preferred stock), and sale/leaseback agreements) consisting of an obligation to purchase or redeem securities or other property, if such obligations arise out of or in connection with the sale or issuance of the same or similar securities or property; (i) all obligations or liabilities with respect to letters of credit or applications or reimbursement agreements therefore; (j) all obligations or liabilities with respect to banker's acceptances; (k) all obligations or liabilities with respect to payments received in consideration of Hydrocarbons yet to be acquired or produced at the time of payment (including obligations under "take-or-pay" contracts to deliver gas in return for payments already received and the undischarged balance of any production payment created by such Person or for the creation of which such Person directly or indirectly received payment) or (l) all obligations or liabilities with respect to other obligations to deliver goods or services, including Hydrocarbons, in consideration of advance payments therefore; provided, however, that the "Indebtedness" of any Person shall not include obligations or liabilities that were incurred by such Person on ordinary trade terms to vendors, suppliers, or other Persons providing goods and services for use by such Person in the ordinary course of its business, unless and until such obligations or liabilities are outstanding more than ninety (90) days past the original invoice or billing date therefor.

"Indemnified Taxes" means Taxes other than Excluded Taxes.

"Indemnitee" has the meaning assigned to such term in Section 11.03(b).

"Indenture" means (a) any Indenture described in the definition of Existing Senior Notes and (b) any indenture by and among any Credit Party, as issuer, and a trustee, pursuant to which any Senior Notes are issued, as the same may be amended, restated, modified or otherwise supplemented from time to time to the extent permitted under Section 7.13.

"Index Debt" means senior, unsecured, long-term indebtedness for borrowed money of the Borrower that is not guaranteed by any other Person or subject to any other credit agreement.

"Ineligible Institution" has the meaning assigned to such term in Section 11.04.

"Information" has the meaning assigned to such term in Section 11.12.

"Initial Borrowing Base" has the meaning assigned to such term in Section 3.01.

"Interest Coverage Ratio" means, with respect to any fiscal quarter, the ratio of (i) the sum of the Consolidated EBITDAX for the trailing four fiscal quarter period ending on the last day of such fiscal quarter to (ii) the sum of the Consolidated Interest Expense for the trailing four fiscal quarter period ending on the last day of such fiscal quarter.

"Interest Election Request" means a request by the Borrower to convert or continue a Borrowing in accordance with Section 2.08.

"Interest Payment Date" means (a) with respect to any ABR Loan, the last day of each March, June, September, and December, and (b) with respect to any Eurodollar Loan, the last day of the Interest Period applicable to the Borrowing of which such Loan is a part and, in the case of a Eurodollar Borrowing with

an Interest Period of more than three months' duration, each day prior to the last day of such Interest Period that occurs at intervals of three months' duration after the first day of such Interest Period.

"Interest Period" means with respect to any Eurodollar Borrowing, the period commencing on the date of such Borrowing and ending on the numerically corresponding day in the calendar month that is one, two, three, six, or if permitted by the Administrative Agent in its sole discretion, twelve months thereafter, as the Borrower may elect; provided, that (i) if any Interest Period would end on a day other than a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless, in the case of a Eurodollar Borrowing only, such next succeeding Business Day would fall in the next calendar month, in which case such Interest Period shall end on the next preceding Business Day and (ii) any Interest Period pertaining to a Eurodollar Borrowing that commences on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the last calendar month of such Interest Period) shall end on the last Business Day of the last calendar month of such Interest Period. For purposes hereof, the date of a Borrowing initially shall be the date on which such Borrowing is made and, thereafter shall be the effective date of the most recent conversion or continuation of such Borrowing.

"Interpolated Rate" means, at any time, for any Interest Period, the rate *per annum* (rounded to the same number of decimal places as the LIBO Screen Rate) determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the LIBO Screen Rate for the longest period for which the LIBO Screen Rate is available that is shorter than the Impacted Interest Period; and (b) the LIBO Screen Rate for the shortest period (for which that LIBO Screen Rate is available) that exceeds the Impacted Interest Period, in each case, at such time.

"Investment Grade Period" shall mean any period commencing with the date the Borrower elects to enter into an Investment Grade Period pursuant to the provisions of Section 11.15(a) and ending with the earlier to occur of (i) the date the Borrower elects to exit such Investment Grade Period pursuant to the provisions of Section 11.15(b) and (ii) the first date following the beginning of such Investment Grade Period on which the Borrower receives both (i) a corporate rating from Moody's that is lower than Ba1 and (ii) a corporate rating from S&P that is lower than BB+.

"Issuing Bank" means JPMorgan Chase Bank, N.A., Wells Fargo Bank, N.A., and any other Lender that agrees to act as an Issuing Bank, each in its capacity as the issuer of Letters of Credit hereunder, and its successors in such capacity as provided in Section 2.06(i). Any Issuing Bank may, in its discretion, arrange for one or more Letters of Credit to be issued by Affiliates of such Issuing Bank, in which case the term "Issuing Bank" shall include any such Affiliate with respect to Letters of Credit issued by such Affiliate. In the event more than one Lender has issued one or more Letters of Credit, each reference to "Issuing Bank" shall be deemed to refer to each Issuing Bank or a particular Issuing Bank, as context requires.

"Law" means any statute, law, regulation, ordinance, rule, treaty, judgment, order, decree, permit, concession, franchise, license, agreement or other governmental restriction of the United States or any state or political subdivision thereof or of any foreign country or any department, province or other political subdivision thereof. Any reference to a Law includes any amendment or modification to such Law, and all regulations, rulings, and other Laws promulgated under such Law.

"LC Disbursement" means a payment made by the Issuing Bank pursuant to a Letter of Credit.

"LC Exposure" means, at any time, the sum of (a) the aggregate undrawn amount of all outstanding Letters of Credit at such time plus (b) the aggregate amount of all LC Disbursements that have not yet been

reimbursed by or on behalf of the Borrower at such time. The LC Exposure of any Lender at any time shall be its Applicable Percentage of the total LC Exposure at such time.

"LC Maturity Date" means the date that is thirty (30) days prior to the Maturity Date.

"LC Sublimit" means $950,000,000.

"Lender Certificate" has the meaning assigned to such term in Section 2.03.

"Lender Counterparty" means any Lender or any Affiliate of a Lender counterparty to a Hedging Contract with any Credit Party including any Person that was, but thereafter ceased to be, a Lender or Affiliate of a Lender but only to the extent of the obligations of any Credit Party to such Person pursuant to a Hedging Contract entered into at the time such Person was a Lender or an Affiliate of a Lender.

"Lender Hedging Obligations" means all obligations arising from time to time under Hedging Contracts entered into from time to time between any Credit Party and a Lender Counterparty (including any such obligations under any Existing Hedging Contracts); provided that if such Lender Counterparty ceases to be a Lender hereunder or an Affiliate of a Lender hereunder, Lender Hedging Obligations shall only include such obligations to the extent arising from transactions entered into at the time such Lender Counterparty was a Lender hereunder or an Affiliate of a Lender hereunder.

"Lenders" means the Persons listed on Schedule 1.01 and any other Person that shall have become a party hereto pursuant to an Assignment and Assumption, other than any such Person that ceases to be a party hereto pursuant to an Assignment and Assumption.

"Letter of Credit" means any letter of credit issued pursuant to this Agreement and, to the extent outstanding on the Effective Date, any letter of credit issued under the Existing Credit Agreement and any renewals thereof after the Effective Date.

"Letter of Credit Commitment" means, with respect to each Issuing Bank, the commitment of such Issuing Bank to issue Letters of Credit hereunder, in an aggregate amount at any one time outstanding not to exceed the lesser of (a) an amount equal to the portion of the aggregate LC Sublimit such that the amount of each Issuing Bank's Letter of Credit Commitment is the same and (b) the amount set forth opposite such Issuing Bank's name on Schedule 1.02 at such time, as such schedule may be supplemented from time to time by the Administrative Agent, notwithstanding Section 11.02, in connection with the replacement of any Issuing Bank as provided in Section 2.06(i), or if an Issuing Bank has entered into an Assignment and Assumption.

"Leverage Ratio" means the ratio of total Indebtedness to Consolidated EBITDAX for the trailing four fiscal quarter period ending on the last day of such fiscal quarter.

"LIBO Rate" means, with respect to any Eurodollar Borrowing for any Interest Period, the LIBO Screen Rate at approximately 11:00 a.m., London time, two Business Days prior to the commencement of such Interest Period; provided that if the LIBO Screen Rate shall not be available at such time for such Interest Period (an "Impacted Interest Period") then the LIBO Rate shall be the Interpolated Rate.

"LIBO Screen Rate" means, for any day and time, with respect to any Eurodollar Borrowing for any Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any other Person that takes over the administration of such rate for U.S. Dollars for a period equal in length to such Interest Period as displayed on such day and time on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate (or, in the event such rate does not appear on a Reuters page or screen,

on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion, provided that if the LIBO Screen Rate shall be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"Lien" means, with respect to any asset, (a) any mortgage, deed of trust, lien, pledge, hypothecation, encumbrance, charge or security interest in, on or of such asset, (b) the interest of a vendor or a lessor under any conditional sale agreement, capital lease or title retention agreement (or any financing lease having substantially the same economic effect as any of the foregoing) relating to such asset and (c) in the case of securities, any purchase option, call or similar right of a third party with respect to such securities.

"Liquidity" means, at any date of determination, the sum of (a) the Aggregate Unused Commitment (other than Commitments of any Defaulting Lenders) and (b) the Borrower's and its Restricted Subsidiaries that are Credit Parties unrestricted cash and cash equivalents (in each case, free and clear of all Liens other than Permitted Liens).

"Loan Documents" means this Agreement, any promissory notes executed in connection herewith, the Security Documents, the Letters of Credit (and any applications therefore and reimbursement agreements related thereto), the Fee Letter and any other agreements executed in connection with this Agreement.

"Loans" means the loans made by the Lenders to the Borrower pursuant to this Agreement.

"Loan Limit" means (a) at any time during an Investment Grade Period, the lesser of (i) the Maximum Facility Amount and (ii) the Aggregate Commitment at such time, and (b) at any time that is not during an Investment Grade Period, the least of (i) the Maximum Facility Amount, (ii) the Aggregate Commitment at such time, and (iii) the Borrowing Base then in effect.

"Majority Lenders" means, at any time, Lenders having Credit Exposures and Unused Commitments representing more than fifty percent (50.0%) of the sum of the Aggregate Credit Exposure and the Aggregate Unused Commitment at such time or, if the Aggregate Commitment has been terminated, Lenders having Credit Exposures representing more than fifty percent (50.0%) of the Aggregate Credit Exposure of all Lenders at such time.

"Material Adverse Effect" means (a) a material adverse change in, or a material adverse effect upon, the operations, business, assets or financial condition of the Borrower and its Restricted Subsidiaries, taken as a whole; (b) a material impairment of the rights and remedies of the Administrative Agent or the Lenders under any Loan Document, or of the ability of any Credit Party to perform its obligations under any Loan Document to which it is a party; or (c) a material adverse effect upon the legality, validity, binding effect or enforceability against any Credit Party of any Loan Document to which it is a party.

"Material Domestic Subsidiary" means any Domestic Subsidiary that owns or holds assets, properties or interests (including Oil and Gas Interests) with an aggregate fair market value greater than five percent (5%) of the aggregate fair market value of all of the assets, properties and interests (including Oil and Gas Interests) of the Borrower and the Restricted Subsidiaries, on a combined basis.

"Material Indebtedness" means the Senior Notes and any other Indebtedness (other than the Loans and Letters of Credit), or obligations in respect of one or more Hedging Contracts, of Borrower or any one or more of the Restricted Subsidiaries in an aggregate principal amount exceeding $125,000,000. For purposes of determining Material Indebtedness, the "principal amount" of the obligations of any Credit Party in respect of any Hedging Contract at any time shall be the maximum aggregate amount (giving effect

to any netting agreements) that such Credit Party would be required to pay if such Hedging Contract were terminated at such time.

"Maturity Date" means, at any time a determination is to be made, the earlier of (i) the date that is ninety-one (91) days prior to the earliest stated redemption date of any Senior Note then outstanding, or (ii) October 26, 2022.

"Maximum Facility Amount" means $4,750,000,000.

"Maximum Liability" has the meaning assigned to such term in Section 8.09.

"Maximum Rate" has the meaning assigned to such term in Section 11.16.

"Minimum Collateral Amount" means eighty percent (80%) of the Engineered Value of the Borrowing Base Properties included in (a) for the period from the Effective Date until the first Redetermination after the Effective Date, the Initial Borrowing Base and (b) at any time thereafter, the most recent Borrowing Base determined pursuant to Article III.

"MLP Party" means Antero Midstream and each of its Subsidiaries, and collectively, the "MLP Parties".

"Moody's" means Moody's Investors Service, Inc.

"Mortgaged Properties" means the Oil and Gas Interests described in one or more duly executed, delivered and filed Mortgages evidencing a first and prior Lien in favor of the Administrative Agent for the benefit of the Secured Parties and subject only to the Permitted Liens.

"Mortgages" means all mortgages, deeds of trust, amendments to mortgages, security agreements, assignments of production, pledge agreements, collateral assignments, financing statements and other documents, instruments and agreements evidencing, creating, perfecting or otherwise establishing the Liens required by Section 6.09. All Mortgages shall be in form and substance reasonably satisfactory to Administrative Agent.

"Multiemployer Plan" means a multiemployer plan as defined in Section 4001(a)(3) of ERISA.

"Natural Gas" means all natural gas, distillate or sulphur, and all products recovered in the processing of natural gas (other than condensate and Natural Gas Liquids) including coalbed methane gas and casinghead gas.

"Natural Gas Liquids" means all natural gas liquids including those recovered in the production and processing of natural gas, including natural gasoline and liquefied petroleum gas (including liquefied butane, propane, iso-butane, normal butane, and ethane (including such methane allowable in commercial ethane)).

"Net Cash Proceeds" means, (a) with respect to any Disposition of any Borrowing Base Properties (including any Disposition of Equity Interests of any Restricted Subsidiary) by Borrower or any Restricted Subsidiary, the cash proceeds received in connection with such sale net of (i) all federal, state and local taxes required to be paid or accrued as a liability under GAAP, (ii) the deduction of appropriate amounts to be provided as a reserve, in accordance with GAAP, for liabilities associated with such Disposition and retained by the seller thereof, (iii) any amounts held in escrow pending determination of purchase price adjustment (such amounts to be become Net Cash Proceeds at the time such amounts are released to

Borrower or Restricted Subsidiary), (iv) the net amount paid after giving effect to all Hedge Modifications effected in connection with such Disposition and corresponding to the notional volumes of the Borrowing Base Properties so Disposed and (v) brokerage fees, professional commissions and other costs and expenses associated therewith, including all legal, title and recording fees and expenses, (b) with respect to any Permitted Refinancings or issuance of Senior Notes, the cash proceeds received from such Permitted Refinancing or issuance of Senior Notes, as the case may be, net of underwriting discounts and commissions and other reasonable costs and expenses associated therewith, including reasonable legal fees and expenses, and (c) with respect to any Hedge Modification by any Credit Party, the excess, if any, of (i) the net amount of all cash and cash equivalents received in connection with all substantially contemporaneous Hedge Modifications (after giving effect to any netting arrangements), over (ii) the reasonable and documented out-of-pocket expenses incurred by such Credit Party in connection with such Hedge Modification.

"Non-Consenting Borrowing Base Lender" has the meaning assigned to such term in Section 2.19(c).

"Non-Consenting Lender" has the meaning assigned to such term in Section 2.19(c).

"Non-Defaulting Lender" means, at any time, each Lender that is not a Defaulting Lender at such time.

"NYFRB" means the Federal Reserve Bank of New York.

"NYFRB Rate" means, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day(or for any day that is not a Banking Day, for the immediately preceding Banking Day); provided that if none of such rates are published for any day that is a Business Day, the term "NYFRB Rate" means the rate for a federal funds transaction quoted at 11:00 a.m. on such day received to the Administrative Agent from a Federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

"Obligations" means (a) any and all obligations of every nature, contingent or otherwise, whether now existing or hereafter arising, of any Credit Party from time to time owed to the Administrative Agent, the Issuing Bank, the Lenders or any of them under any Loan Document, whether for principal, interest, reimbursement of amounts drawn under any Letter of Credit, funding indemnification amounts, fees, expenses, indemnification or otherwise, (b) Lender Hedging Obligations and (c) Cash Management Obligations; provided, however, that Obligations of a Credit Party shall not include any Excluded Swap Obligations of such Credit Party.

"Oil and Gas Interest(s)" means (a) Hydrocarbon Interests, (b) the properties now or hereafter pooled or unitized with Hydrocarbon Interests, (c) all presently existing or future unitization, pooling agreements and declarations of pooled units and the units created thereby (including all units created under orders, regulations and rules of any Governmental Authority) which may affect all or any portion of the Hydrocarbon Interests, (d) all operating agreements, contracts and other agreements, including production sharing contracts and agreements, which relate to any of the Hydrocarbon Interests or the production, sale, purchase, exchange or processing of Hydrocarbons from or attributable to such Hydrocarbon Interests, (e) all Hydrocarbons in and under and which may be produced and saved or attributable to the Hydrocarbon Interests, including all oil in tanks, and all rents, issues, profits, proceeds, products, revenues and other incomes from or attributable to the Hydrocarbon Interests, (f) all tenements, hereditaments, appurtenances and properties in any manner appertaining, belonging, affixed or incidental to the Hydrocarbon Interests and (g) all properties, rights, titles, interests and estates described or referred to above, including any and all property, real or personal, now owned or hereafter acquired and situated upon, used, held for use or

useful in connection with the operating, working or development of any of such Hydrocarbon Interests or property (excluding drilling rigs, automotive equipment, rental equipment or other personal property which may be on such premises for the purpose of drilling a well or for other similar temporary uses) and including any and all oil wells, gas wells, injection wells or other wells, buildings, structures, fuel separators, liquid extraction plants, plant compressors, pumps, pumping units, field gathering systems, gas processing plants and pipeline systems and any related infrastructure to any thereof, tanks and tank batteries, fixtures, valves, fittings, machinery and parts, engines, boilers, meters, apparatus, equipment, appliances, tools, implements, cables, wires, towers, casing, tubing and rods, surface leases, rights-of-way, easements and servitudes together with all additions, substitutions, replacements, accessions and attachments to any and all of the foregoing.

"Organizational Documents" means (a) with respect to any corporation, its certificate or articles of incorporation or organization, as amended, and its by-laws, as amended, (b) with respect to any limited partnership, its certificate of limited partnership, as amended, and its partnership agreement, as amended, (c) with respect to any general partnership, its partnership agreement, as amended, and (d) with respect to any limited liability company, its certificate of formation or articles of organization, as amended, and its limited liability company agreement or operating agreement, as amended.

"Other Taxes" means any and all present or future stamp or documentary taxes or any other excise or property taxes, charges or similar levies arising from any payment made hereunder or from the execution, delivery or enforcement of, or otherwise with respect to, this Agreement.

"Overnight Bank Funding Rate" means, for any day, the rate comprised of both overnight federal funds and overnight Eurodollar borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate (from and after such date as the NYFRB shall commence to publish such composite rate).

"Parent" means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

"Participant" has the meaning assigned to such term in Section 11.04.

"Participant Register" has the meaning assigned to such term in Section 11.04.

"PBGC" means the Pension Benefit Guaranty Corporation referred to and defined in ERISA and any successor entity performing similar functions.

"Permitted Holders" means each of (i) Warburg Pincus & Co.; (ii) Paul M. Rady ("Rady"); (iii) Glen C. Warren, Jr. ("Warren"); (iv) Rady's wife or Warren's wife; (v) any lineal descendant of either Rady or Warren; (vi) the guardian or other legal representative of either Rady or Warren; (vii) the estate of either Rady or Warren; (viii) any trust of which at least one of the trustees is either Rady or Warren, or the principal beneficiaries of which are any one or more of the Persons referred to in the preceding clauses (ii) through (vii); (ix) any Person that is controlled by any one or more of the Persons in the preceding clauses (i) through (viii); and (x) any group (within the meaning of the Exchange Act) that includes one or more of the Persons described in the preceding clauses (i) through (ix), provided that such Persons described in the preceding clauses (i) through (ix) control more than 50% of the total voting power of such group.

"Permitted Investments" means:

(a) U.S. Government Securities;

(b) investments in commercial paper maturing within 270 days from the date of acquisition thereof and having, at such date of acquisition, the highest credit rating obtainable from S&P or from Moody's;

(c) investments in certificates of deposit, banker's acceptances and time deposits maturing within twelve (12) months from the date of acquisition thereof issued or guaranteed by or placed with, and money market deposit accounts issued or offered by, any domestic office of any commercial bank organized under the laws of the United States of America or any State thereof which has a combined capital and surplus and undivided profits of not less than $500,000,000 and whose long term certificates of deposit are rated at least Aa3 by Moody's or AA- by S&P;

(d) fully collateralized repurchase agreements with a term of not more than thirty (30) days for securities described in paragraph (a) above and entered into with a financial institution satisfying the criteria described in paragraph (c) above; and

(e) money market or other mutual funds substantially all of whose assets comprise securities of the type described in paragraph (a) through (d) above and that (i) comply with the criteria set forth in Securities and Exchange Commission Rule 2a-7 under the Investment Company Act of 1940, (ii) are rated AAA by S&P and Aaa by Moody's and (iii) have portfolio assets of at least $5,000,000,000.

"Permitted Liens" means:

(a) statutory Liens for taxes, assessments or other governmental charges or levies which are not yet delinquent or which are being contested in good faith by appropriate action and for which adequate reserves have been maintained in accordance with GAAP;

(b) landlords', operators', carriers', warehousemen's, repairmen's, mechanics', materialmen's or other like Liens which do not secure Indebtedness, in each case only to the extent arising in the ordinary course of business and only to the extent securing obligations which are not delinquent or which are being contested in good faith by appropriate proceedings and for which adequate reserves have been maintained in accordance with GAAP;

(c) minor defects and irregularities in title to any property, so long as such defects and irregularities neither secure Indebtedness nor materially impair the value of such property or the use of such property for the purposes for which such property is held;

(d) deposits of cash or securities to secure the performance of bids, trade contracts, leases, statutory obligations and other obligations of a like nature (excluding appeal bonds) incurred in the ordinary course of business;

(e) Liens under the Security Documents;

(f) with respect only to property subject to any particular Security Document, Liens burdening such property which are expressly allowed by such Security Document;

(g) contractual Liens which arise in the ordinary course of business under operating agreements, joint venture agreements, oil and gas partnership agreements, oil and gas leases, farm-out agreements, division orders, contracts for the sale, transportation or exchange of oil and natural gas, unitization and pooling declarations and agreements, area of mutual interest agreements, overriding royalty

agreements, marketing agreements, processing agreements, net profits agreements, development agreements, service agreements, gas balancing or deferred production agreements, injection, repressuring and recycling agreements, salt water or other disposal agreements, seismic or other geophysical permits or agreements, and other agreements which are usual and customary in the oil and gas business and are for claims which are not delinquent or which are being contested in good faith by appropriate action and for which adequate reserves have been maintained in accordance with GAAP, provided that any such Lien referred to in this clause does not materially impair the use of the Property covered by such Lien for the purposes for which such Property is held by Borrower or any Restricted Subsidiary or materially impair the value of such Property subject thereto;

(h) Liens on any property or asset acquired, constructed or improved by any Credit Party, securing Indebtedness permitted under Section 7.01(f), which (a) are in favor of the seller of such property or assets, in favor of the Person developing, constructing, or improving such asset or property, or in favor of the Person that provided the funding for the acquisition, development, construction, repair or improvement cost, as the case may be, of such asset or property, (b) except for any Sale and Leaseback Transaction permitted under Section 7.05(f), are created within 90 days after the acquisition, development, construction, repair or improvement, (c) secure the purchase price or development, construction, repair or improvement cost, as the case may be, of such asset or property in an amount up to 100% of the fair market value of such acquisition, construction or improvement of such asset or property, and (d) are limited to the asset or property so acquired, constructed or improved (including the proceeds thereof, accessions thereto, upgrades thereof and improvements thereto);

(i) Liens reserved in oil and gas mineral leases for bonus or rental payments and for compliance with the terms of such leases;

(j) Liens arising from Uniform Commercial Code financing statement filings regarding operating leases entered into by the Borrower and the Restricted Subsidiaries in the ordinary course of business;

(k) Liens arising solely by virtue of any statutory or common law provision relating to banker's liens, rights of set-off or similar rights and remedies and burdening only deposit accounts or other funds maintained with a creditor depository institution, provided that no such deposit account is a dedicated cash collateral account or is subject to restrictions against access by the depositor in excess of those set forth by regulations promulgated by the Board and no such deposit account is intended by Borrower or any Restricted Subsidiary to provide collateral to the depository institution;

(l) easements, restrictions, servitudes, permits, conditions, covenants, exceptions or reservations in any property of Borrower or any Restricted Subsidiary for the purpose of roads, pipelines, transmission lines, transportation lines, distribution lines for the removal of gas, oil, coal or other minerals or timber, and other like purposes, or for the joint or common use of real estate, rights of way, facilities and equipment, that do not secure any monetary obligations and which in the aggregate do not materially impair the use of such property for the purposes of which such property is held by Borrower or any Restricted Subsidiary or materially impair the value of such property subject thereto; and

(m) judgment and attachment Liens not giving rise to an Event of Default, provided that any appropriate legal proceedings which may have been duly initiated for the review of such judgment shall not have been finally terminated or the period within which such proceeding may be initiated shall not have expired and no action to enforce such Lien has been commenced.

"Permitted Refinancing" means any Indebtedness of any Credit Party, and Indebtedness constituting Guarantees thereof by any Credit Party, incurred or issued in exchange for, or the Net Cash

Proceeds of which are used solely to extend, refinance, renew, replace, defease or refund, any Senior Notes, in whole or in part, from time to time; provided that (i) the principal amount of such Permitted Refinancing (or if such Permitted Refinancing is issued at a discount, the initial issuance price of such Permitted Refinancing) does not exceed the principal amount of the Indebtedness so extended, refinanced, renewed, replaced, defeased or refunded (plus the amount of any premiums, accrued and unpaid interest, fees and expenses incurred in connection therewith), (ii) such Permitted Refinancing does not provide for any scheduled repayment, mandatory redemption or payment of a sinking fund obligation prior to the date that is one year after the Maturity Date, (iii) the covenant, default and remedy provisions of such Permitted Refinancing are not materially more onerous to the Credit Parties and their respective Subsidiaries than those imposed by the Existing Senior Notes, (iv) the mandatory prepayment, repurchase and redemption provisions of such Permitted Refinancing are not materially more onerous to the Credit Parties and their respective Subsidiaries than those imposed by the Existing Senior Notes, (v) the non-default cash interest rate on the outstanding principal balance of such Permitted Refinancing does not exceed the prevailing market rate then in effect for similarly situated credits at the time such Permitted Refinancing is incurred, (vi) such Permitted Refinancing is unsecured, (vii) no Subsidiary of Borrower is required to Guarantee such Permitted Refinancing unless such Subsidiary is (or concurrently with any such Guarantee becomes) a Guarantor hereunder, and (viii) to the extent such Permitted Refinancing is in the form of senior subordinated notes, the subordination provisions set forth therein are either (x) at least as favorable, taken as a whole, to the Secured Parties as the subordination provisions contained in the Senior Notes being refinanced in such Permitted Refinancing or (y) reasonably satisfactory to the Administrative Agent and the Majority Lenders.

"Person" means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

"Plan" means any employee pension benefit plan (other than a Multiemployer Plan) subject to the provisions of Title IV of ERISA or Section 412 of the Code or Section 302 of ERISA, and in respect of which any Credit Party or any ERISA Affiliate is (or, if such plan were terminated, would under Section 4069 of ERISA be deemed to be) an "employer" as defined in Section 3(5) of ERISA.

"Platform" means Debt Domain, Intralinks, Syndtrak or a substantially similar electronic transmission system.

"Pledge Agreement" means that certain Fifth Amended and Restated Pledge and Security Agreement, to be dated as of October 26, 2017, in favor of the Administrative Agent for the benefit of the Secured Parties covering, among other things, the rights and interests of the Grantors (as defined in the Pledge Agreement) in the Equity Interests of each Restricted Subsidiary and otherwise in form and substance satisfactory to the Administrative Agent.

"Prime Rate" means the rate of interest *per annum* publicly announced from time to time by JPMorgan Chase Bank, N.A. as its prime rate in effect at its office located at 270 Park Avenue, New York, New York; each change in the Prime Rate shall be effective from and including the date such change is publicly announced as being effective.

"Projected Oil and Gas Production" means, (a) as of the last day of each fiscal quarter, the forecasted production of Crude Oil, Natural Gas, and Natural Gas Liquids (measured by volume unit or BTU equivalent, not sales price) from Oil and Gas Interests owned by the Credit Parties as set forth in the production report delivered by the Borrower under Section 6.01(h) and (b) for purposes of Section 7.03(e) only, the projected production of Crude Oil, Natural Gas, or Natural Gas Liquids (measured by volume unit or BTU equivalent, not sales price) for the term of the contracts or a particular month, as applicable, from Oil and Gas Interests owned by the Credit Parties that are located in the United States and that have

attributable to them proved Oil and Gas Interests, as such production is projected in the Reserve Report most recently delivered, after deducting projected production from any Oil and Gas Interests sold or under contract for sale that had been included in such report and after adding projected production from any Oil and Gas Interests that had not been reflected in such report but that are reflected in a separate or supplemental reports meeting the requirements of such Section 6.01(e) or (f) and otherwise are reasonably satisfactory to Administrative Agent.

"Projections" means Borrower and its Restricted Subsidiaries' forecasted (a) balance sheets, (b) profit and loss statements, and (c) cash flow statements, all prepared on a basis consistent with the historical financial statements described in Section 4.04 and after giving effect to the Transactions, together with appropriate supporting details and a statement of underlying assumptions, and for the period from the Effective Date through December 31, 2019.

"Public-Sider" means a Lender whose representatives may trade in securities of the Borrower or its controlling person or any of its Subsidiaries while in possession of the financial statements provided by the Borrower under the terms of this Agreement.

"PV-9" means, with respect to any Proved Reserves expected to be produced from any Borrowing Base Properties, the net present value, discounted at 9% per annum, of the future net revenues expected to accrue to the Borrower's and the Credit Parties' collective interests in such reserves during the remaining expected economic lives of such reserves, calculated in accordance with the most recent Bank Price Deck provided to the Borrower by the Administrative Agent; provided that any PV-9 from proved developed non-producing reserves may not exceed 35% of the aggregate PV-9.

"Qualified Acquisition" means an Acquisition or a series of related Acquisitions in which the consideration paid by the Credit Parties is equal or greater than $100,000,000.

"Qualified Disposition" means a Disposition or a series of related Dispositions in which the consideration received by the Credit Parties is equal or greater than $100,000,000.

"Qualified ECP Guarantor" means, in respect of any Swap Obligation, each Credit Party that has total assets exceeding $10,000,000 at the time the relevant Guarantee or grant of the relevant security interest becomes effective with respect to such Swap Obligation or such other person as constitutes an Eligible Contract Participant and can cause another person to qualify as an Eligible Contract Participant at such time by entering into a keepwell under Section 1a(18)(A)(v)(II) of the Commodity Exchange Act.

"Recipient" means (a) the Administrative Agent, (b) any Lender, and (c) any Issuing Bank, as applicable.

"Redetermination" means any Scheduled Redetermination or Special Redetermination.

"Redetermination Date" means each date on which the Borrowing Base is redetermined pursuant to the terms hereof, which shall be (a) with respect to any Scheduled Redetermination, on or about April 15 of each year, commencing April 15, 2018, (b) with respect to any Special Redetermination requested by the Borrower pursuant to Section 3.04, the first day of the first month which is not less than twenty (20) Business Days following the date of a request by the Borrower for a Special Redetermination and (c) with respect to any Special Redetermination requested by the Required Lenders pursuant to Section 3.04, the date notice of such Redetermination is delivered to the Borrower pursuant to Section 3.05.

"Register" has the meaning assigned to such term in Section 11.04.

"Related Parties" means, with respect to any specified Person, such Person's Affiliates and the respective directors, officers, employees, agents and advisors of such Person and such Person's Affiliates.

"Required Lenders" means, at any time, Lenders having Credit Exposures and Unused Commitments representing at least sixty-six and two-thirds percent (66-2/3%) of the sum of the Aggregate Credit Exposure and the Aggregate Unused Commitment at such time or, if the Aggregate Commitment has been terminated, Lenders having Credit Exposures representing at least sixty-six and two-thirds percent (66-2/3%) of the Aggregate Credit Exposure of all Lenders at such time; provided that for the purpose of determining the Required Lenders needed for any waiver, amendment, modification or consent, any Lender that is the Borrower, or any Affiliate of the Borrower shall be disregarded.

"Reserve Report" means an unsuperseded engineering analysis of the Borrowing Base Properties, in form and substance reasonably acceptable to the Administrative Agent, prepared in accordance with customary and prudent practices in the petroleum engineering industry.

"Restricted Payment" means any dividend or other distribution (whether in cash, securities or other property) with respect to any Equity Interests in any Credit Party, or any payment (whether in cash, securities or other property), including any sinking fund or similar deposit, on account of the purchase, redemption, retirement, acquisition, cancellation or termination of any such Equity Interests in any Credit Party or any option, warrant or other right to acquire any such Equity Interests in any Credit Party.

"Restricted Subsidiary" means any Subsidiary that (i) owns or operates any Borrowing Base Properties, (ii) owns more than 5% of the aggregate fair market value of all assets of the Borrower and their respective subsidiaries on a consolidated basis, or (iii) is an obligor on any indebtedness under any of the Credit Parties' Senior Notes.

"S&P" means Standard & Poor's Ratings Group, a division of The McGraw Hill Corporation.

"Sale and Leaseback Transaction" means any sale or other transfer of any property by any Person with the intent to lease such property as lessee.

"Sanctioned Country" means, at any time, a country or territory which is the subject or target of any Sanctions (at the time of this Agreement, Crimea, Cuba, Iran, North Korea, Sudan, and Syria).

"Sanctioned Person" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person owned or controlled by any such Person or Persons described in the foregoing clauses (a) or (b).

"Sanctions" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State.

"Scheduled Redetermination" means any redetermination of the Borrowing Base pursuant to Section 3.03.

"Secured Cash Management Agreement" means any agreement entered into for Cash Management Obligations.

"Secured Hedge Agreement" means any agreement entered into for Lender Hedging Obligations.

"Secured Party" means the Administrative Agent, any Lender and any Lender Counterparty and any other holder of Obligations including any Cash Management Obligations and Lender Hedging Obligations, to the extent that such Lender Hedging Obligations were incurred when such Person was a Lender Counterparty.

"Security Agreement" means that certain Fifth Amended and Restated Security Agreement, to be dated as of October 26, 2017, made by Borrower and the other grantors party thereto in favor of the Administrative Agent for the benefit of the Secured Parties covering, among other things, the rights and interests of the Grantors (as defined in the Security Agreement) in certain personal property.

"Security Documents" means collectively, all Guarantees of the Obligations evidenced by the Loan Documents and all Mortgages, security agreements (including the Security Agreement), pledge agreements (including the Pledge Agreement), collateral assignments and other collateral documents covering the Oil and Gas Interests and the Equity Interests of the Restricted Subsidiaries and other personal property, equipment, oil and gas inventory and proceeds of the foregoing, all such documents to be in form and substance reasonably satisfactory to the Administrative Agent.

"Senior Notes" means (a) the Existing Senior Notes and (b) any senior or senior subordinated notes issued by any Credit Party in one or more transactions; provided that (i) the terms of such senior notes do not provide for any scheduled repayment, mandatory redemption (including any required offer to redeem) or payment of a sinking fund obligation prior to the date that is one year after the Maturity Date (except for any offer to redeem such senior notes required as a result of asset sales or the occurrence of a "Change of Control" under and as defined in the Indenture), (ii) the terms and conditions of such senior notes are, taken as a whole, substantially the same as those set forth in the Existing Senior Notes, (iii) the non-default interest rate on the outstanding principal balance of such senior notes does not exceed the prevailing market rate then in effect for similarly situated credits at the time such senior notes are issued, (iv) such senior notes are unsecured, (v) no Subsidiary of Borrower is required to Guarantee the Indebtedness evidenced by such senior notes unless such Subsidiary is (or concurrently with any such Guarantee becomes) a Guarantor hereunder, and (vi) the subordination provisions of any senior subordinated notes are reasonably satisfactory to the Administrative Agent and the Majority Lenders.

"Senior Notes Documents" means any Senior Notes, the related Indenture and any documents or instruments contemplated by or executed in connection with any of them, in each case, as amended, modified, supplemented or otherwise restated from time to time to the extent permitted under Section 7.13.

"Special Redetermination" means any redetermination of the Borrowing Base made pursuant to Section 3.04.

"Statutory Reserve Rate" means a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the Board to which the Administrative Agent is subject with respect to the Adjusted LIBO Rate, for eurocurrency funding (currently referred to as "Eurocurrency Liabilities" in Regulation D of the Board). Such reserve percentages shall include those imposed pursuant to such Regulation D. Eurodollar Loans shall be deemed to constitute eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

"subsidiary" means, with respect to any Person (the "parent") at any date, any corporation, limited liability company, partnership, association or other entity the accounts of which would be Consolidated

with those of the parent in the parent's Consolidated financial statements if such financial statements were prepared in accordance with GAAP as of such date, as well as any other corporation, limited liability company, partnership, association or other entity (a) of which securities or other ownership interests representing more than fifty percent (50%) of the equity or more than fifty percent (50%) of the ordinary voting power or, in the case of a partnership, more than fifty percent (50%) of the general partnership interests are, as of such date, owned, controlled or held, or (b) that is, as of such date, otherwise Controlled, by the parent or one or more subsidiaries of the parent or by the parent and one or more subsidiaries of the parent. Unless the context otherwise clearly requires, references herein to a "Subsidiary" refer to a Subsidiary of Borrower.

"Super-Majority Lenders" means, at any time, Lenders having Credit Exposures and Unused Commitments representing at least eighty percent (80%) of the sum of the Aggregate Credit Exposure and all Unused Commitments at such time or, if the Aggregate Commitment has been terminated, Lenders having Credit Exposures representing at least eighty percent (80%) of the Aggregate Credit Exposure of all Lenders at such time.

"Swap Obligation" means, with respect to any Guarantor, any obligation to pay or perform under any agreement, contract or transaction that constitutes a "swap" within the meaning of section 1a(47) of the Commodity Exchange Act.

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), value added taxes, or any other goods and services, use or sales taxes, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Test Period" shall mean, for any determination under this Agreement, the four consecutive fiscal quarters of the Borrower then last ended and for which financial statements have been delivered to the Administrative Agent pursuant to Section 6.01.

"Transactions" means the execution, delivery and performance by the Credit Parties of this Agreement and the Loan Documents, the borrowing of Loans, the use of the proceeds thereof and the issuance of Letters of Credit hereunder.

"Type", when used in reference to any Loan or Borrowing, refers to whether the rate of interest on such Loan, or on the Loans comprising such Borrowing, is determined by reference to the Adjusted LIBO Rate or the Alternate Base Rate.

"Unrestricted Subsidiary" means any Subsidiary that is not a Restricted Subsidiary.

"Unused Commitment" means, with respect to each Lender at any time, such Lender's Commitment at such time minus such Lender's Credit Exposure at such time.

"Unused Commitment Fee" means the fee that the Borrower shall pay quarterly, in arrears, for the aggregate amount of Unused Commitments, at the rate per annum set forth next to the row heading "Unused Commitment Fee Rate" in the definition of "Applicable Rate" and based upon on the Borrowing Base Usage or the higher of the ratings assigned to the Borrower by Moody's or S&P, as applicable, in effect on such date.

"U.S. Government Securities" means direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America (or by any agency or

instrumentality thereof to the extent such obligations are entitled to the full faith and credit of the United States of America), in each case maturing within one year from the date of acquisition thereof.

"U.S. Person" means a "United States person" within the meaning of Section 7701(a)(30) of the Code.

"U.S. Tax Compliance Certificate" has the meaning assigned to such term Section 2.17(f)(ii)(B)(3).

"Withdrawal Liability" means the liability of any Credit Party or ERISA Affiliate to a Multiemployer Plan as a result of a complete or partial withdrawal from such Multiemployer Plan, as such terms are defined in Part I of Subtitle E of Title IV of ERISA.

"Write-Down and Conversion Powers" means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

Section 1.02 Types of Loans and Borrowings. For purposes of this Agreement, Loans may be classified and referred to by Type (e.g., a "Eurodollar Loan" or an "ABR Loan"). Borrowings also may be classified and referred to by Type (e.g., a "Eurodollar Borrowing" or an "ABR Borrowing").

Section 1.03 Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation". The word "will" shall be construed to have the same meaning and effect as the word "shall". Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (b) any reference herein to any Person shall be construed to include such Person's successors and assigns, (c) the words "herein", "hereof" and "hereunder", and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (d) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement and (e) the words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

(a) Accounting Terms; GAAP. Except as otherwise expressly provided herein, all terms of an accounting or financial nature shall be construed in accordance with GAAP, as in effect from time to time; provided that, if Borrower notifies the Administrative Agent that such Borrower requests an amendment to any provision hereof to eliminate the effect of any change occurring after the date hereof in GAAP or in the application thereof on the operation of such provision (or if the Administrative Agent notifies the Borrower that the Majority Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof, then such provision shall be interpreted on the basis of GAAP as in effect and applied immediately before such change shall have become effective until such notice shall have been withdrawn or such provision amended in accordance herewith. Notwithstanding the foregoing, with respect to the computation of Indebtedness, Consolidated EBITDAX or any financial ratio or similar requirement set forth in any Loan Documents, such computations shall at all times be made without regard to the lease accounting standard ASC 842 and for the avoidance of doubt, any cash payments made in respect of leases shall be deducted

from EBITDAX to the extent such payments have not been deducted in the calculation of Consolidated Net Income pursuant to ASC 842.

Section 1.04 Oil and Gas Definitions. For purposes of this Agreement, the terms "proved reserves," "proved developed reserves," "proved undeveloped reserves," "proved developed nonproducing reserves" and "proved developed producing reserves," have the meaning given such terms from time to time and at the time in question by the Society of Petroleum Engineers of the American Institute of Mining Engineers.

Section 1.05 Time of Day. Unless otherwise specified, all references to times of day shall be references to Central time (daylight or standard, as applicable).

ARTICLE II
The Credits

Section 2.01 Commitments. Subject to the terms and conditions set forth herein, each Lender, severally, but not jointly, agrees to make Loans denominated in Dollars to the Borrower from time to time on any Business Day during the Availability Period in an aggregate principal amount that will not result (after giving effect to any application of proceeds of such Borrowing pursuant to Section 2.09) in (a) such Lender's Credit Exposure exceeding such Lender's Commitment or Applicable Percentage of the Loan Limit, or (b) the Aggregate Credit Exposure exceeding the Loan Limit. Within the foregoing limits and subject to the terms and conditions set forth herein, the Borrower may borrow, prepay and reborrow Loans.

Section 2.02 Termination of the Aggregate Commitment and Reduction of the Maximum Facility Amount.

(a) Unless previously terminated, the Aggregate Commitment shall terminate on the Maturity Date.

(b) The Borrower may at any time terminate, or from time to time reduce, the Aggregate Commitment; provided that (i) each reduction of the Aggregate Commitment shall be in an amount that is an integral multiple of $1,000,000 and not less than $5,000,000 and (ii) the Borrower shall not terminate or reduce the Aggregate Commitment if, after giving effect to any concurrent prepayment of the Loans in accordance with Section 2.10 and Section 2.11, the Aggregate Credit Exposure would exceed the Aggregate Commitment.

(c) The Borrower shall notify the Administrative Agent of any election to terminate or reduce the Aggregate Commitment under paragraph (b) of this Section at least three (3) Business Days prior to the effective date of such termination or reduction, specifying such election and the effective date thereof. Promptly following receipt of any notice, the Administrative Agent shall advise the Lenders of the contents thereof. Each notice delivered by the Borrower pursuant to this Section shall be irrevocable; provided that a notice of termination of the Aggregate Commitments delivered by the Borrower may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice may be revoked by the Borrower (by notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. Any termination of the Aggregate Commitment shall be permanent. Any reduction of the Aggregate Commitment shall be made ratably among the Lenders in accordance with each Lender's Applicable Percentage.

Section 2.03 Additional Lenders; Increases in the Aggregate Commitment.

(a) If (a) no Default exists as of the date of such increase or would be caused by such increase, (b) the Borrower concurrently pay any additional fees to each increasing Lender and each new Lender required as a result of such increase, and (c) immediately after giving effect to such increase, (i) the Aggregate Commitments do not exceed the Borrowing Base then in effect and (ii) the Aggregate Commitment does not exceed the Maximum Facility Amount, the Borrower may elect to increase the Aggregate Commitment in a minimum amount of $50,000,000 and integral multiples of $10,000,000 in excess thereof by providing written notice of such increase to the Administrative Agent. No Lender shall have any right or obligation to participate in any increase in the Aggregate Commitment. The Borrower may effect such increase, with the consent of the Administrative Agent, by increasing the Commitment of a Lender or by causing a Person that is acceptable to the Administrative Agent, that at such time is not a Lender, to become a Lender (an "Additional Lender"). Such Lender or Additional Lender shall evidence its obligation to provide such increase by executing and delivering to the Borrower and the Administrative Agent a certificate substantially in the form of Exhibit E hereto (a "Lender Certificate"). In the event that within 10 Business Days of the Administrative Agent's receipt of such written notice, the existing Lenders and/or Additional Lenders fail to provide increases in their respective Commitments sufficient to satisfy such requested increase in the Aggregate Commitment, the Borrower may adjust the previously requested increase to reflect the increased Commitments of existing Lenders and/or Additional Lenders received as of such date. Upon receipt by the Administrative Agent of Lender Certificates representing increases to existing Lender Commitments and/or Commitments from Additional Lenders as provided in this Section 2.03 in an aggregate amount equal to the requested increase (as the same may have been adjusted), (i) the Aggregate Commitment (including the Commitment of any Person that becomes an Additional Lender by delivery of a Lender Certificate) automatically without further action by the Borrower, the Administrative Agent or any Lender shall be increased on the effective date set forth in such Lender Certificates by the amount indicated in such Lender Certificates, (ii) the Register and Schedule 1.01 shall be amended to add the Commitment of each Additional Lender or to reflect the increase in the Commitment of each existing Lender, and the Applicable Percentages of the Lenders shall be adjusted accordingly to reflect each Additional Lender or the increase in the Commitment of each existing Lender, (iii) any such Additional Lender shall be deemed to be a party in all respects to this Agreement and any other Loan Documents to which the Lenders are a party, and (iv) upon the effective date set forth in such Lender Certificate, any such Lender party to the Lender Certificate shall purchase and each existing Lender shall assign to such Lender a ratable portion of the outstanding Credit Exposure of each of the existing Lenders such that the Lenders (including any Additional Lender, if applicable) shall have the appropriate portion of the Aggregate Credit Exposure of the Lenders (based in each case on such Lender's Applicable Percentage, as revised pursuant to this Section). To the extent requested by any Lender and in accordance with Section 2.16, the Borrower shall pay to such Lender, within the time period prescribed by Section 2.16, any amounts required to be paid by the Borrower under Section 2.16 in the event the payment of any principal of any Eurodollar Loan or the conversion of any Eurodollar Loan other than on the last day of an Interest Period applicable thereto is required in connection with the increase of the Aggregate Commitment contemplated by this Section 2.03.

Section 2.04 Loans and Borrowings.

(a) Each Loan shall be made as part of a Borrowing consisting of Loans made by the Lenders ratably in accordance with their respective Commitments. The failure of any Lender to make any Loan required to be made by it shall not relieve any other Lender of its obligations hereunder; provided that the Commitments of the Lenders are several and no Lender shall be responsible for any other Lender's failure to make Loans as required.

(b) Subject to Section 2.14, each Borrowing shall be comprised entirely of ABR Loans or Eurodollar Loans as the Borrower may request in accordance herewith. Each Lender at its option may make any Eurodollar Loan by causing any domestic or foreign branch or Affiliate of such Lender to make such Loan; provided that any exercise of such option shall not affect the obligation of the Borrower to repay such Loan in accordance with the terms of this Agreement.

(c) At the commencement of each Interest Period for any Eurodollar Borrowing, such Borrowing shall be in an aggregate amount that is an integral multiple of $100,000 and not less than $1,000,000. At the time that each ABR Borrowing is made, such Borrowing shall be in an aggregate amount that is an integral multiple of $100,000 and not less than $1,000,000; provided that an ABR Borrowing may be in an aggregate amount that is equal to the entire unused balance of the Aggregate Commitment or that is required to finance the reimbursement of an LC Disbursement as contemplated by Section 2.06(e). Borrowings of more than one Type may be outstanding at the same time; provided that there shall not at any time be more than a total of twelve (12) Eurodollar Borrowings outstanding.

(d) Notwithstanding any other provision of this Agreement, the Borrower shall not be entitled to request, or to elect to convert or continue, any Eurodollar Borrowing if the Interest Period requested with respect thereto would end after the Maturity Date.

Section 2.05 Requests for Borrowings. To request a Borrowing, the Borrower shall notify the Administrative Agent of such request by telephone (a) in the case of a Eurodollar Borrowing, not later than 12:00 noon three (3) Business Days before the date of the proposed Borrowing or (b) in the case of an ABR Borrowing, not later than 12:00 noon on the date of the proposed Borrowing (so long as such date is a Business Day). Each such telephonic Borrowing Request shall be irrevocable and shall be confirmed promptly by hand delivery or telecopy to the Administrative Agent of a written Borrowing Request in a form approved by the Administrative Agent and signed by the Borrower. Each such telephonic and written Borrowing Request shall specify the following information in compliance with Section 2.04:

(i) the aggregate amount of the requested Borrowing;

(ii) the date of such Borrowing, which shall be a Business Day;

(iii) whether such Borrowing is to be an ABR Borrowing or a Eurodollar Borrowing;

(iv) in the case of a Eurodollar Borrowing, the initial Interest Period to be applicable thereto, which shall be a period contemplated by the definition of the term "Interest Period"; and

(v) the location and number of the Borrower's account to which funds are to be disbursed, which shall comply with the requirements of Section 2.07.

If no election as to the Type of Borrowing is specified, then the requested Borrowing shall be an ABR Borrowing. If no Interest Period is specified with respect to any requested Eurodollar Borrowing, then the Borrower shall be deemed to have selected an Interest Period of one month's duration. Promptly following receipt of a Borrowing Request in accordance with this Section, the Administrative Agent shall advise each Lender of the details thereof and of the amount of such Lender's Loan to be made as part of the requested Borrowing.

Section 2.06 Letters of Credit.

(a) General. Subject to the terms and conditions set forth herein, Borrower may request the issuance of Letters of Credit for its own or the account of any Restricted Subsidiary in a form reasonably

acceptable to the Administrative Agent and the Issuing Bank, at any time and from time to time during the Availability Period. In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of any form of letter of credit application or other agreement submitted by Borrower to, or entered into by Borrower with, the Issuing Bank relating to any Letter of Credit, the terms and conditions of this Agreement shall control. Notwithstanding anything herein to the contrary, the Issuing Bank shall have no obligation hereunder to issue, and shall not issue, any Letter of Credit the proceeds of which would be made available to any Person (i) to fund any activity or business of or with any Sanctioned Person, or in any country or territory that, at the time of such funding, is the subject of any Sanctions or (ii) in any manner that would result in a violation of any Sanctions by any party to this Agreement.

(b) Notice of Issuance, Amendment, Renewal, Extension; Certain Conditions. To request the issuance of a Letter of Credit (or the amendment, renewal or extension of an outstanding Letter of Credit), the Borrower shall hand deliver or telecopy (or transmit by electronic communication, if arrangements for doing so have been approved by the Issuing Bank) to the Issuing Bank and the Administrative Agent (reasonably in advance of the requested date of issuance, amendment, renewal or extension, but in any event no less than three Business Days) a notice requesting the issuance of a Letter of Credit, or identifying the Letter of Credit to be amended, renewed or extended, and specifying the date of issuance, amendment, renewal or extension (which shall be a Business Day), the date on which such Letter of Credit is to expire (which shall comply with paragraph (c) of this Section), the amount of such Letter of Credit, the name and address of the beneficiary thereof and such other information as shall be necessary to prepare, amend, renew or extend such Letter of Credit. If requested by the Issuing Bank, the Borrower also shall submit a letter of credit application on the Issuing Bank's standard form in connection with any request for a Letter of Credit. A Letter of Credit shall be issued, amended, renewed or extended only if (and upon issuance, amendment, renewal or extension of each Letter of Credit Borrower shall be deemed to represent and warrant that), after giving effect to such issuance, amendment, renewal or extension, (i) the LC Exposure does not exceed the LC Sublimit, (ii) (x) the aggregate undrawn amount of all outstanding Letters of Credit issued by any Issuing Bank at such time plus (y) the aggregate amount of all LC Disbursements made by such Issuing Bank that have not yet been reimbursed by or on behalf of the Borrower at such time shall not exceed such Issuing Bank's Letter of Credit Commitment, (iii) no Lender's Revolving Credit Exposure shall exceed its Commitment and (iv) the Aggregate Credit Exposure does not exceed the Loan Limit.

(c) Expiration Date. Each Letter of Credit shall expire at or prior to the close of business on the earlier of (i) the date one year, or, with the consent of the Issuing Bank with respect to such Letter of Credit, fifteen (15) months, after the date of the issuance of such Letter of Credit (or, in the case of any renewal or extension thereof, one year after such renewal or extension), and (ii) the LC Maturity Date.

(d) Participations. By the issuance of a Letter of Credit (or an amendment to a Letter of Credit increasing the amount thereof) and without any further action on the part of the Issuing Bank or the Lenders, the Issuing Bank hereby grants to each Lender, and each Lender hereby acquires from the Issuing Bank, a participation in such Letter of Credit equal to such Lender's Applicable Percentage of the aggregate amount available to be drawn under such Letter of Credit. In consideration and in furtherance of the foregoing, each Lender hereby absolutely and unconditionally agrees to pay to the Administrative Agent, for the account of the Issuing Bank, such Lender's Applicable Percentage of each LC Disbursement made by the Issuing Bank and not reimbursed by the Borrower on the date due as provided in paragraph (e) of this Section, or of any reimbursement payment required to be refunded to the Borrower for any reason. Each Lender acknowledges and agrees that its obligation to acquire participations pursuant to this paragraph in respect of Letters of Credit is absolute and unconditional and shall not be affected by any circumstance whatsoever, including any amendment, renewal or extension of any Letter of Credit or the occurrence and continuance of a Default or reduction or termination of the Aggregate Commitment, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever.

(e) Reimbursement. If the Issuing Bank shall make any LC Disbursement in respect of a Letter of Credit, the Borrower shall reimburse such LC Disbursement by paying to the Administrative Agent an amount equal to such LC Disbursement not later than 12:00 noon on the date that such LC Disbursement is made, if the Borrower shall have received notice of such LC Disbursement prior to 10:00 a.m. on such date, or, if such notice has not been received by the Borrower prior to such time on such date, then not later than 12:00 noon on the Business Day immediately following the day that the Borrower receive such notice; provided that the Borrower may, subject to the conditions to borrowing set forth herein, request in accordance with Section 2.05 that such payment be financed with an ABR Borrowing in an equivalent amount and, to the extent so financed, the Borrower's obligation to make such payment shall be discharged and replaced by the resulting ABR Borrowing. If the Borrower fails to make such payment when due, the Administrative Agent shall notify each Lender of the applicable LC Disbursement, the payment then due from the Borrower in respect thereof and such Lender's Applicable Percentage thereof. Promptly following receipt of such notice, each Lender shall pay to the Administrative Agent its Applicable Percentage of the payment then due from the Borrower, in the same manner as provided in Section 2.07 with respect to Loans made by such Lender (and Section 2.07 shall apply, mutatis mutandis, to the payment obligations of the Lenders), and the Administrative Agent shall promptly pay to the Issuing Bank the amounts so received by it from the Lenders. Promptly following receipt by the Administrative Agent of any payment from the Borrower pursuant to this paragraph, the Administrative Agent shall distribute such payment to the Issuing Bank or, to the extent that Lenders have made payments pursuant to this paragraph to reimburse the Issuing Bank, then to such Lenders and the Issuing Bank as their interests may appear. Any payment made by a Lender pursuant to this paragraph to reimburse the Issuing Bank for any LC Disbursement (other than the funding of ABR Loans as contemplated above) shall not constitute a Loan and shall not relieve the Borrower of their obligation to reimburse such LC Disbursement.

(f) Obligations Absolute. The Borrower's obligation to reimburse LC Disbursements as provided in paragraph (e) of this Section shall be absolute, unconditional and irrevocable, and shall be performed strictly in accordance with the terms of this Agreement under any and all circumstances whatsoever and irrespective of (i) any lack of validity or enforceability of any Letter of Credit or this Agreement, or any term or provision therein, (ii) any draft or other document presented under a Letter of Credit proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect, (iii) payment by the Issuing Bank under a Letter of Credit against presentation of a draft or other document that does not comply with the terms of such Letter of Credit, or (iv) any other event or circumstance whatsoever, whether or not similar to any of the foregoing, that might, but for the provisions of this Section, constitute a legal or equitable discharge of, or provide a right of setoff against, the Borrower's obligations hereunder. Neither the Administrative Agent, the Lenders nor the Issuing Bank, nor any of their Related Parties, shall have any liability or responsibility by reason of or in connection with the issuance or transfer of any Letter of Credit or any payment or failure to make any payment thereunder (irrespective of any of the circumstances referred to in the preceding sentence), or any error, omission, interruption, loss or delay in transmission or delivery of any draft, notice or other communication under or relating to any Letter of Credit (including any document required to make a drawing thereunder), any error in interpretation of technical terms or any consequence arising from causes beyond the control of the Issuing Bank; provided that the foregoing shall not be construed to excuse the Issuing Bank from liability to the Borrower to the extent of any direct damages (as opposed to consequential damages, claims in respect of which are hereby waived by the Borrower to the extent permitted by applicable law) suffered by the Borrower that are caused by the Issuing Bank's failure to exercise care when determining whether drafts and other documents presented under a Letter of Credit comply with the terms thereof. The parties hereto expressly agree that, in the absence of gross negligence or willful misconduct on the part of the Issuing Bank (as finally determined by a court of competent jurisdiction), the Issuing Bank shall be deemed to have exercised care in each such determination. In furtherance of the foregoing and without limiting the generality thereof, the parties agree that, with respect to documents presented which appear on their face to be in substantial compliance with the terms of a Letter of Credit, the Issuing Bank may, in its sole discretion,

either accept and make payment upon such documents without responsibility for further investigation, regardless of any notice or information to the contrary, or refuse to accept and make payment upon such documents if such documents are not in strict compliance with the terms of such Letter of Credit.

(g) Disbursement Procedures. The Issuing Bank shall, promptly following its receipt thereof, examine all documents purporting to represent a demand for payment under a Letter of Credit. The Issuing Bank shall promptly notify the Administrative Agent and the Borrower by telephone (confirmed by telecopy) of such demand for payment and whether the Issuing Bank has made or will make an LC Disbursement thereunder; provided that any failure to give or delay in giving such notice shall not relieve the Borrower of their obligation to reimburse the Issuing Bank and the Lenders with respect to any such LC Disbursement.

(h) Interim Interest. If the Issuing Bank shall make any LC Disbursement, then, unless the Borrower shall reimburse such LC Disbursement in full on the date such LC Disbursement is made, the unpaid amount thereof shall bear interest, for each day from and including the date such LC Disbursement is made to but excluding the date that the Borrower reimburse such LC Disbursement, at the rate per annum then applicable to ABR Loans, and such interest is due and payable on the date when such reimbursement is payable; provided that, if the Borrower fails to reimburse such LC Disbursement when due pursuant to paragraph (e) of this Section, then Section 2.13(c) shall apply. Interest accrued pursuant to this paragraph shall be for the account of the Issuing Bank, except that interest accrued on and after the date of payment by any Lender pursuant to paragraph (e) of this Section to reimburse the Issuing Bank shall be for the account of such Lender to the extent of such payment.

(i) Replacement of the Issuing Bank. Any Issuing Bank may be replaced at any time by written agreement among the Borrower, the Administrative Agent, the replaced Issuing Bank and the successor Issuing Bank. The Administrative Agent shall notify the Lenders of any such replacement of the Issuing Bank. At the time any such replacement shall become effective, the Borrower shall pay all unpaid fees accrued for the account of the replaced Issuing Bank pursuant to Section 2.12(b). From and after the effective date of any such replacement, (i) the successor Issuing Bank shall have all the rights and obligations of the Issuing Bank under this Agreement with respect to Letters of Credit to be issued thereafter and (ii) references herein to the term "Issuing Bank" shall be deemed to refer to such successor or to any previous Issuing Bank, or to such successor and all previous Issuing Banks, as the context shall require. After the replacement of an Issuing Bank hereunder, the replaced Issuing Bank shall remain a party hereto and shall continue to have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such replacement, but shall not be required to issue additional Letters of Credit.

(j) Cash Collateralization.

(i) If any Event of Default shall occur and be continuing, on the Business Day that the Borrower receive notice from the Administrative Agent or the Required Lenders (or, if the maturity of the Loans has been accelerated, Lenders with LC Exposure representing greater than sixty-six and two-thirds percent (66⅔%) of the total LC Exposure) demanding the deposit of cash collateral pursuant to this paragraph, the Borrower shall deposit in the Cash Collateral Account an amount in cash equal to the total LC Exposure as of such date plus any accrued and unpaid interest thereon, if any; provided that the obligation to deposit such cash collateral shall become effective immediately, and such deposit shall become immediately due and payable, without demand or other notice of any kind, upon the occurrence of any Event of Default with respect to Borrower described in paragraph (h) or (i) of Article IX.

(ii) All cash collateral provided by Borrower or any other Credit Party pursuant to the request of the Administrative Agent in accordance with Section 2.20(c) shall be deposited in the Cash Collateral Account.

(iii) Deposits in the Cash Collateral Account made pursuant to either the foregoing paragraph (i) of this Section 2.06(j) or Section 2.20(c) shall be held by the Administrative Agent as collateral for the payment and performance of the Borrower's obligations under this Agreement corresponding to the LC Exposure and each Credit Party hereby grants a security interest in such cash and each deposit account (including the Cash Collateral Account) into which such cash is deposited to secure the Obligations under this Agreement. The Administrative Agent shall have exclusive dominion and control, including the exclusive right of withdrawal, over the Cash Collateral Account. Other than any interest earned on the investment of such deposits, which investments shall be made at the option and sole discretion of the Administrative Agent and at the Borrower's risk and expense, such deposits shall not bear interest. Interest or profits, if any, on such investments shall accumulate in such account. Moneys in such account shall be applied by the Administrative Agent to reimburse the Issuing Bank for LC Disbursements for which it has not been reimbursed and, to the extent not so applied, shall be held for the satisfaction of the reimbursement obligations of the Borrower for the LC Exposure at such time or, if the maturity of the Loans has been accelerated (but subject to the consent of Lenders with LC Exposure representing sixty-six and two-thirds percent (66⅔%) or more of the total LC Exposure), be applied to satisfy other Obligations under this Agreement and to the extent any excess remains after payment in full in cash of all Obligations and the termination of all Commitments, such excess shall be released to the Borrower.

(iv) If the Borrower is required to provide an amount of cash collateral pursuant to either paragraph (i) of this Section 2.06(j) or Section 2.20(c), such amount (to the extent not applied as aforesaid) shall be returned to the Borrower within one Business Day after (x) in the case of cash collateral provided pursuant to Section 2.20(c), the date on which such cash collateral is no longer required pursuant to Section 2.20(c) and (y) in the case of cash collateral provided pursuant to paragraph (i) above, all Events of Default have been cured or waived.

(k) Subject to the appointment and acceptance of a successor Issuing Bank, any Issuing Bank may resign as an Issuing Bank at any time upon thirty days' prior written notice to the Administrative Agent, the Borrower, and the Lenders, in which case such Issuing Bank shall be replaced in accordance with Section 2.06(i); provided that, if an Issuing Bank is no longer a Lender, such Issuing Bank may resign as an Issuing Bank upon thirty days' prior written notice to the Administrative Agent, the Lenders and the Borrower and such resigning Issuing Bank shall remain a party hereto to the extent that Letters of Credit issued by it (or reimbursement obligation with respect thereto) remain outstanding and shall continue to have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such resignation, but shall not be required to issue additional Letters of Credit or extend any outstanding Letters of Credit subsequent to such resignation.

Section 2.07 Funding of Borrowings.

(a) Each Lender shall make each Loan to be made by it hereunder on the proposed date thereof solely by wire transfer of immediately available funds by 2:00 p.m. to the account of the Administrative Agent most recently designated by it for such purpose by notice to the Lenders. Except in respect of the provisions of this Agreement covering the reimbursement of Letters of Credit, the Administrative Agent will make such Loans available to the Borrower by promptly crediting the funds so received in the aforesaid account of the Administrative Agent to an account of the Borrower designated by the Borrower in the applicable Borrowing Request; provided that ABR Loans made to finance the reimbursement of an LC

Disbursement as provided in Section 2.06(e) shall be remitted by the Administrative Agent to the Issuing Bank.

(b) Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with paragraph (a) of this Section and may, in reliance upon such assumption, make available to the Borrower a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at (i) in the case of such Lender, the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation or (ii) in the case of the Borrower, the interest rate applicable to ABR Loans. If such Lender pays such amount to the Administrative Agent, then such amount shall constitute such Lender's Loan included in such Borrowing.

Section 2.08 Interest Elections.

(a) Each Borrowing initially shall be of the Type specified in the applicable Borrowing Request and, in the case of a Eurodollar Borrowing, shall have an initial Interest Period as specified in such Borrowing Request. Thereafter, the Borrower may elect to convert such Borrowing to a different Type or to continue such Borrowing and, in the case of a Eurodollar Borrowing, may elect Interest Periods therefor, all as provided in this Section. The Borrower may elect different options with respect to different portions of the affected Borrowing, in which case each such portion shall be allocated ratably among the Lenders holding the Loans comprising such Borrowing, and the Loans comprising each such portion shall be considered a separate Borrowing.

(b) To make an election pursuant to this Section, the Borrower shall notify the Administrative Agent of such election by telephone by the time that a Borrowing Request would be required under Section 2.05 if the Borrower were requesting a Borrowing of the Type resulting from such election to be made on the effective date of such election. Each such telephonic Interest Election Request shall be irrevocable and shall be confirmed promptly by hand delivery or telecopy to the Administrative Agent of a written Interest Election Request in a form approved by the Administration Agent and signed by the Borrower.

(c) Each telephonic and written Interest Election Request shall specify the following information in compliance with Section 2.04:

(i) the Borrowing to which such Interest Election Request applies and, if different options are being elected with respect to different portions thereof, the portions thereof to be allocated to each resulting Borrowing (in which case the information to be specified pursuant to paragraphs (iii) and (iv) below shall be specified for each resulting Borrowing);

(ii) the effective date of the election made pursuant to such Interest Election Request, which shall be a Business Day;

(iii) whether the resulting Borrowing is to be an ABR Borrowing or a Eurodollar Borrowing; and

(iv) if the resulting Borrowing is a Eurodollar Borrowing, the Interest Period to be applicable thereto after giving effect to such election, which shall be a period contemplated by the definition of the term "Interest Period".

If any such Interest Election Request requests a Eurodollar Borrowing but does not specify an Interest Period, then the Borrower shall be deemed to have selected an Interest Period of one month's duration.

(d) Promptly following receipt of an Interest Election Request, the Administrative Agent shall advise each Lender of the details thereof and of such Lender's portion of each resulting Borrowing.

(e) If the Borrower fails to deliver a timely Interest Election Request with respect to a Eurodollar Borrowing prior to the end of the Interest Period applicable thereto, then, unless such Borrowing is repaid as provided herein, at the end of such Interest Period such Borrowing shall be converted to an ABR Borrowing. Notwithstanding any contrary provision hereof, if an Event of Default has occurred and is continuing and the Administrative Agent, at the request of the Required Lenders, so notifies the Borrower, then, so long as an Event of Default is continuing (i) no outstanding Borrowing may be converted to or continued as a Eurodollar Borrowing and (ii) unless repaid, each Eurodollar Borrowing shall be converted to an ABR Borrowing at the end of the Interest Period applicable thereto.

Section 2.09 Repayment of Loans; Evidence of Debt.

(a) The Borrower hereby unconditionally promises to pay to the Administrative Agent for the account of each Lender the then unpaid principal amount of each Loan on the Maturity Date.

(b) Each Lender shall maintain in accordance with its usual practice an account or accounts evidencing the Indebtedness of the Borrower to such Lender resulting from each Loan made by such Lender, including the amounts of principal and interest payable and paid to such Lender from time to time hereunder.

(c) The Administrative Agent shall maintain accounts in which it shall record (i) the amount of each Loan made hereunder, the Type thereof and the Interest Period applicable thereto, (ii) the amount of any principal or interest due and payable or to become due and payable from the Borrower to each Lender hereunder and (iii) the amount of any sum received by the Administrative Agent hereunder for the account of the Lenders and each Lender's share thereof.

(d) The entries made in the accounts maintained pursuant to paragraph (b) or (c) of this Section shall be prima facie evidence of the existence and amounts of the obligations recorded therein; provided that the failure of any Lender or the Administrative Agent to maintain such accounts or any error therein shall not in any manner affect the obligation of the Borrower to repay the Loans in accordance with the terms of this Agreement.

(e) Any Lender may request that Loans made by it be evidenced by a promissory note. In such event, the Borrower shall prepare, execute and deliver to such Lender a promissory note payable to such Lender (or, if requested by such Lender, to such Lender and its registered assigns) and in the form attached hereto as Exhibit D. Thereafter, the Loans evidenced by such promissory note and interest thereon shall at all times (including after assignment pursuant to Section 11.04) be represented by one or more promissory notes in such form.

(f) Borrower and each surety, endorser, guarantor and other party ever liable for payment of any sums of money payable under this Agreement, jointly and severally waive presentment and demand

for payment, notice of intention to accelerate the maturity, protest, notice of protest and nonpayment, as to the payments due under this Agreement or any other Loan Document and as to each and all installments hereunder and thereunder, and agree that their liability under this Agreement or any other Loan Document shall not be affected by any renewal or extension in the time of payment hereof, or in any indulgences, or by any release or change in any security for the payment of the Obligations, and hereby consent to any and all such renewals, extensions, indulgences, releases or changes.

Section 2.10 Optional Prepayment of Loans.

(a) The Borrower shall have the right at any time and from time to time to prepay, without premium or penalty, any Borrowing in whole and or in part, in a minimum amount of $1,000,000 and integral multiples of $1,000,000 subject to prior notice in accordance with paragraph (b) of this Section 2.10.

(b) The Borrower shall notify the Administrative Agent by telephone (confirmed by telecopy) of any prepayment hereunder (i) in the case of prepayment of a Eurodollar Borrowing, not later than 11:00 a.m. three (3) Business Days before the date of prepayment, or (ii) in the case of prepayment of an ABR Borrowing, not later than 11:00 a.m. one Business Day before the date of prepayment. Each such notice shall be irrevocable and shall specify the prepayment date and the principal amount of each Borrowing or portion thereof to be prepaid; provided that, if a notice of prepayment is given in connection with a conditional notice of termination or reduction of the Aggregate Commitment as contemplated by Section 2.02, then such notice of prepayment may be revoked if such notice of termination or reduction is revoked in accordance with Section 2.02. Promptly following receipt of any such notice relating to a Borrowing, the Administrative Agent shall advise the Lenders of the contents thereof. Each prepayment of a Borrowing shall be applied ratably to the Loans included in the prepaid Borrowing. Prepayments shall be accompanied by accrued interest to the extent required by Section 2.13.

Section 2.11 Mandatory Prepayment of Loans.

(a) In the event a Borrowing Base Deficiency exists as a result of a Scheduled Redetermination or Special Redetermination of the Borrowing Base, the Borrower shall, within thirty (30) days after written notice from the Administrative Agent to the Borrower of such Borrowing Base Deficiency, take any of the following actions or a combination thereof to eliminate the Borrowing Base Deficiency:

(i) prepay, without premium or penalty, the principal amount of the Loans (and after all Loans are repaid in full, provide cash collateral in accordance with Section 2.06(j)) representing Borrower's Aggregate Credit Exposure in an amount sufficient to eliminate Borrower's Borrowing Base Deficiency, such prepayment to be made in full on or before the 30th day after the Borrower's receipt of notice of such Borrowing Base Deficiency;

(ii) notify the Administrative Agent that it intends to prepay, without premium or penalty (but subject to any funding indemnification amounts required by Section 2.16), an amount sufficient to eliminate Borrower's Borrowing Base Deficiency in not more than six (6) equal monthly installments plus accrued interest thereon and make the first such monthly payment on the 30th day after the Borrower's receipt of notice of such Borrowing Base Deficiency and the subsequent installments to be due and payable at one month intervals thereafter until such Borrowing Base Deficiency has been eliminated; or

(iii) give notice to Administrative Agent that Borrower desire to provide Administrative Agent with deeds of trust, mortgages, security agreements, financing statements and other security documents in form and substance satisfactory to Administrative Agent, granting,

confirming, and perfecting first and prior Liens or security interests in collateral acceptable to Required Lenders, to the extent needed to cover the Minimum Collateral Amount (as they in their reasonable discretion deem consistent with prudent oil and gas banking industry lending standards at the time) to an amount which eliminates the Borrower's Borrowing Base Deficiency, and then provide such security documents within thirty (30) days after the Borrower's receipt of notice of such Borrowing Base Deficiency. If Required Lenders determine that the giving of such security documents will not serve to eliminate such Borrowing Base Deficiency, then, within five (5) Business Days after receiving notice of such determination from Administrative Agent, Borrower will make the prepayments specified in paragraph (ii) of this clause (a), including the payments which would have previously been made but for its election under this paragraph (iii) on the preceding 30th day.

(b) If Borrower or any Restricted Subsidiary Disposes of any Borrowing Base Properties (whether pursuant to a Disposition of Equity Interests of a Restricted Subsidiary permitted pursuant to Section 7.05 or otherwise), the Borrower shall prepay the Loans (and after all Loans are repaid in full, provide cash collateral in accordance with Section 2.06(j)) to the extent necessary to eliminate Borrower's Borrowing Base Deficiency that may exist or that may have occurred as a result of such Disposition on the next Business Day following the day it or any Restricted Subsidiary receives the Net Cash Proceeds from such Disposition.

(c) If Borrower or any Restricted Subsidiary enters into a Hedge Modification, the Borrower shall prepay the Loans (and after all Loans are repaid in full, provide cash collateral in accordance with Section 2.06(j)) to the extent necessary to eliminate Borrower's Borrowing Base Deficiency that may exist or that may have occurred as a result of such Hedge Modification on the next Business Day following the day it or any Restricted Subsidiary receives the Net Cash Proceeds from such Hedge Modification (or in the case of any Hedge Modification entered into by any Credit Party pursuant to Section 7.03(d)(z), on the next Business Day following the day the Borrower receive notice from the Administrative Agent of the amount of any adjustment to the Borrowing Base made by the Administrative Agent or the Required Lenders, as applicable, pursuant to Section 7.03(d)(z)(ii)).

(d) Each prepayment of principal under this section shall be accompanied by all interest then accrued and unpaid on the principal so prepaid. Any principal or interest prepaid pursuant to this section shall be in addition to, and not in lieu of, all payments otherwise required to be paid under the Loan Documents at the time of such prepayment.

Section 2.12 Fees.

(a) The Borrower agrees to pay to the Administrative Agent for the account of each Lender an amount equal to the applicable Unused Commitment Fees times the daily average of the Aggregate Unused Commitment. Such Unused Commitment Fee shall be calculated on the basis of a year consisting of 360 days. The Unused Commitment Fee shall be payable in arrears on the last day of March, June, September and December of each year, commencing with the first such date to occur after the Effective Date, and on the Maturity Date for any period then ending for which the Unused Commitment Fee shall not have been theretofore paid. In the event the Aggregate Commitment terminates on any date other than the last day of March, June, September or December of any year, the Borrower agree to pay to the Administrative Agent, for the account of each Lender, on the date of such termination, the pro rata portion of the Unused Commitment Fee due for the period from the last day of the immediately preceding March, June, September or December, as the case may be, to the date such termination occurs.

(b) The Borrower agrees to pay (i) to the Administrative Agent for the account of each Lender a participation fee with respect to its participations in Letters of Credit, which shall accrue at the same

Applicable Rate used to determine the interest rate applicable to Eurodollar Loans on the average daily amount of each Lender's LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date on which such Lender's Commitment terminates and the date on which such Lender ceases to have any LC Exposure, and (ii) to the Issuing Bank a fronting fee, which shall accrue at the rate equal to one-eighth percent (0.125%) per annum on the average daily amount of the LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date of termination of the Aggregate Commitment and the date on which there ceases to be any LC Exposure (but in no event less than $150 per annum), as well as the Issuing Bank's standard fees with respect to the issuance, amendment, renewal or extension of any Letter of Credit or processing of drawings thereunder; provided that no such individual fee shall exceed $500. Participation fees and fronting fees accrued through and including the last day of March, June, September and December of each year shall be payable on the third Business Day following such last day, commencing on the first such date to occur after the Effective Date; provided that all such fees shall be payable on the date on which the Aggregate Commitment terminates and any such fees accruing after the date on which the Aggregate Commitment terminates shall be payable on demand. Any other fees payable to the Issuing Bank pursuant to this paragraph shall be payable within ten (10) days after demand. All participation fees and fronting fees shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day).

(c) The Borrower agrees to pay to the Administrative Agent, for its own account, the fees payable in the amounts and at the times separately agreed upon between the Borrower and the Administrative Agent.

(d) All fees payable hereunder shall be paid on the dates due, in immediately available funds, to the Administrative Agent (or to the Issuing Bank, in the case of fees payable to it) for distribution, in the case of Unused Commitment Fees and participation fees, to the Lenders. Fees paid shall not be refundable under any circumstances.

Section 2.13 Interest.

(a) At the time of each Borrowing, the Borrower shall elect that such Borrowing will bear interest at a rate per annum equal to either (a) the Alternate Base Rate plus the Applicable Rate, or (b) the Adjusted LIBO Rate plus the Applicable Rate.

(b) Notwithstanding the foregoing, if any principal of or interest on any Loan or any fee or other amount payable by the Borrower hereunder is not paid when due, whether at stated maturity, upon acceleration or otherwise, such overdue amount shall bear interest, after as well as before judgment, at a rate per annum equal to (i) in the case of overdue principal of any Loan, two percent (2%) plus the rate otherwise applicable to such Loan as provided in the preceding paragraphs of this Section or (ii) in the case of any other amount, two percent (2%) plus the rate applicable to ABR Loans as provided in paragraph (a) of this Section.

(c) Accrued interest on each Loan shall be payable in arrears on each Interest Payment Date for such Loan and upon termination of the Aggregate Commitment and on the Maturity Date; provided that (i) interest accrued pursuant to paragraph (c) of this Section shall be payable on demand, (ii) in the event of any repayment or prepayment of any Loan (other than a prepayment of an ABR Loan prior to the end of the Availability Period at a time when no Borrowing Base Deficiency exists), accrued interest on the principal amount repaid or prepaid shall be payable on the date of such repayment or prepayment and (iii) in the event of any conversion of any Eurodollar Loan prior to the end of the current Interest Period therefor, accrued interest on such Loan shall be payable on the effective date of such conversion.

(d) All interest hereunder shall be computed on the basis of a year of 360 days, except that interest computed by reference to the Alternate Base Rate at times when the Alternate Base Rate is based on the Prime Rate shall be computed on the basis of a year of 365 days (or 366 days in a leap year), and in each case shall be payable for the actual number of days elapsed (including the first day but excluding the last day). The applicable Alternate Base Rate, Adjusted LIBO Rate or LIBO Rate shall be determined by the Administrative Agent, and such determination shall be conclusive absent manifest error.

Section 2.14 Alternate Rate of Interest.

(a) If prior to the commencement of any Interest Period for a Eurodollar Borrowing:

(i) the Administrative Agent determines (which determination shall be conclusive absent manifest error) that adequate and reasonable means do not exist for ascertaining the Adjusted LIBO Rate or the LIBO Rate, as applicable (including, without limitation, because the LIBO Screen Rate is not available or published on a current basis), for such Interest Period; or

(ii) the Administrative Agent is advised by the Required Lenders (or, in the case of a Eurodollar Loan, the Lender that is required to make such Loan) that the Adjusted LIBO Rate or the LIBO Rate, as applicable, for such Interest Period will not adequately and fairly reflect the cost to such Lenders (or Lender) of making or maintaining their Loans (or its Loan) included in such Borrowing for such Interest Period;

then the Administrative Agent shall give notice thereof to the Borrower and the Lenders by telephone or telecopy as promptly as practicable thereafter and, until the Administrative Agent notifies the Borrower and the Lenders that the circumstances giving rise to such notice no longer exist, (A) any Interest Election Request that requests the conversion of any Borrowing to, or continuation of any Borrowing as, a Eurodollar Borrowing shall be ineffective, and (B) if any Borrowing Request requests a Eurodollar Borrowing, such Borrowing shall be made as an ABR Borrowing.

(b) If at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (i) the circumstances set forth in clause (a)(i) have arisen and such circumstances are unlikely to be temporary or (ii) the circumstances set forth in clause (a)(i) have not arisen but the supervisor for the administrator of the LIBO Screen Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the LIBO Screen Rate shall no longer be used for determining interest rates for loans, then the Administrative Agent and the Borrower shall endeavor to establish an alternate rate of interest to the LIBO Rate that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest and such other related changes to this Agreement as may be applicable. Notwithstanding anything to the contrary in Section 11.02, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five Business Days of the date notice of such alternate rate of interest is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment. Until an alternate rate of interest shall be determined in accordance with this clause (b) (but, in the case of the circumstances described in clause (ii) of the first sentence of this Section 2.14(b), only to the extent the LIBO Screen Rate for such Interest Period is not available or published at such time on a current basis), (x) any Interest Election Request that requests the conversion of any Revolving Borrowing to, or continuation of any Revolving Borrowing as, a Eurodollar Borrowing shall be ineffective, and (y) if any Borrowing Request requests a Eurodollar Borrowing, such

Borrowing shall be made as an ABR Borrowing; provided that, if such alternate rate of interest shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

Section 2.15 Increased Costs.

(a) If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit or similar requirement (including any compulsory loan requirement, insurance charge or other assessment) against assets of, deposits with or for the account of, or credit extended by, any Lender (except any such reserve requirement reflected in the Adjusted LIBO Rate) or the Issuing Bank; or

(ii) impose on any Lender or the Issuing Bank or the London interbank market any other condition, cost, or expense (other than Taxes) affecting this Agreement or Loans made by such Lender or any Letter of Credit or participation therein;

(iii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes, and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitments or obligations, or its deposits, reserves, other liabilities or capital attributable thereto;

and the result of any of the foregoing shall be to increase the cost to such Lender or such other Recipient of making, continuing, converting, or maintaining any Loan (or of maintaining its obligation to make any such Loan) or to increase the cost to such Lender, the Issuing Bank, or such other Recipient of participating in, issuing or maintaining any Letter of Credit or to reduce the amount of any sum received or receivable by such Lender, the Issuing Bank, or such other Recipient hereunder (whether of principal, interest or otherwise), then the Borrower will pay to such Lender, the Issuing Bank, or such other Recipient as the case may be, such additional amount or amounts as will compensate such Lender or the Issuing Bank, as the case may be, for such additional costs incurred or reduction suffered.

(b) If any Lender or the Issuing Bank determines that any Change in Law regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's or the Issuing Bank's capital or on the capital of such Lender's or the Issuing Bank's holding company, if any, as a consequence of this Agreement or the Loans made by, or participations in Letters of Credit held by, such Lender, or the Letters of Credit issued by the Issuing Bank, to a level below that which such Lender or the Issuing Bank or such Lender's or the Issuing Bank's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or the Issuing Bank's policies and the policies of such Lender's or the Issuing Bank's holding company with respect to capital adequacy and liquidity), then from time to time the Borrower will pay to such Lender or the Issuing Bank, as the case may be, such additional amount or amounts as will compensate such Lender or the Issuing Bank or such Lender's or the Issuing Bank's holding company for any such reduction suffered.

(c) A certificate of a Lender or the Issuing Bank setting forth the amount or amounts necessary to compensate such Lender or the Issuing Bank or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay such Lender or the Issuing Bank, as the case may be, the amount shown as due on any such certificate within ten (10) days after receipt thereof.

(d) Failure or delay on the part of any Lender or the Issuing Bank to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's or the Issuing Bank's right to demand such compensation; provided that the Borrower shall not be required to compensate a Lender or the Issuing

Bank pursuant to this Section for any increased costs or reductions incurred more than 270 days prior to the date that such Lender or the Issuing Bank, as the case may be, notifies the Borrower of the Change in Law giving rise to such increased costs or reductions and of such Lender's or the Issuing Bank's intention to claim compensation therefor; provided further that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the 270-day period referred to above shall be extended to include the period of retroactive effect thereof.

Section 2.16 Break Funding Payments. In the event of (a) the payment of any principal of any Eurodollar Loan other than on the last day of an Interest Period applicable thereto (including as a result of an Event of Default), (b) the conversion of any Eurodollar Loan other than on the last day of the Interest Period applicable thereto, (c) the failure to borrow, convert, continue or prepay any Eurodollar Loan on the date specified in any notice delivered pursuant hereto (regardless of whether such notice may be revoked under Section 2.10(b) and is revoked in accordance therewith) or (d) the assignment of any Eurodollar Loan other than on the last day of the Interest Period applicable thereto as a result of a request by the Borrower pursuant to Section 2.19, then, in any such event, the Borrower shall compensate each Lender for the loss, cost and expense attributable to such event. In the case of a Eurodollar Loan, such loss, cost or expense to any Lender shall be deemed to include an amount determined by such Lender to be the excess, if any, of (i) the amount of interest which would have accrued on the principal amount of such Loan had such event not occurred, at the Adjusted LIBO Rate that would have been applicable to such Loan, for the period from the date of such event to the last day of the then current Interest Period therefor (or, in the case of a failure to borrow, convert or continue, for the period that would have been the Interest Period for such Loan), over (ii) the amount of interest which would accrue on such principal amount for such period at the interest rate which such Lender would bid were it to bid, at the commencement of such period, for dollar deposits of a comparable amount and period from other banks in the Eurodollar market. A certificate of any Lender setting forth any amount or amounts that such Lender is entitled to receive pursuant to this Section shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay such Lender the amount shown as due on any such certificate within ten (10) days after receipt thereof.

Section 2.17 Taxes.

(a) Payments Free of Taxes. Any and all payments by or on account of any obligation of any Credit Party under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law (as determined in the good faith discretion of an applicable withholding agent) requires the deduction or withholding of any Tax from any such payment by a withholding agent, then the applicable withholding agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, then the sum payable by the applicable Credit Party shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section 2.17) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) Payment of Other Taxes by the Borrower. The Credit Parties shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Administrative Agent timely reimburse it for, Other Taxes.

(c) Evidence of Payments. As soon as practicable after any payment of Taxes by any Credit Party to a Governmental Authority pursuant to this Section 2.17, such Credit Party shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(d) Indemnification by the Borrower. The Credit Parties shall jointly and severally indemnify each Recipient, within 10 days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(e) Indemnification by the Lenders. Each Lender shall severally indemnify the Administrative Agent, within 10 days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Credit Party has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Credit Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 9.04(c) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph (e).

(f) Status of Lenders. (i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Borrower and the Administrative Agent, at the time or times reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Borrower or the Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 2.17(f)(ii)(A), (ii)(B) and (ii)(D) below) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing, in the event that the Borrower is a U.S. Person,

(A) any Lender that is a U.S. Person shall deliver to the Borrower and the Administrative Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), an executed IRS Form W-9 certifying that such Lender is exempt from U.S. Federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be

requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, an executed IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(2) in the case of a Foreign Lender claiming that its extension of credit will generate U.S. effectively connected income, an executed IRS Form W-8ECI;

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit C-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent shareholder" of the Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) an executed IRS Form W-8BEN-E or IRS Form W-8BEN; or

(4) to the extent a Foreign Lender is not the beneficial owner, an executed IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN-E, IRS Form W-8BEN, a U.S. Tax Compliance Certificate substantially in the form of Exhibit C-2 or Exhibit C-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit C-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. Federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to U.S. Federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the

Borrower and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Administrative Agent in writing of its legal inability to do so.

(g) Treatment of Certain Refunds. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 2.17 (including by the payment of additional amounts pursuant to this Section 2.17), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 2.17 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (g) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (g), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this paragraph (g) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(h) Survival. Each party's obligations under this Section 2.17 shall survive the resignation or replacement of the Administrative Agent or any assignment of rights by, or the replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all obligations under any Loan Document.

(i) Defined Terms. For purposes of this Section 2.17, the term "Lender" includes any Issuing Bank and the term "applicable law" includes FATCA.

Section 2.18 Payments Generally; Pro Rata Treatment; Sharing of Set-offs.

(a) The Borrower shall make each payment required to be made by it hereunder (whether of principal, interest, fees or reimbursement of LC Disbursements, or of amounts payable under Section 2.15, Section 2.16 or Section 2.17, or otherwise) prior to 12:00 noon on the date when due, in immediately available funds, without set-off or counterclaim. Any amounts received after such time on any date may, in the discretion of the Administrative Agent, be deemed to have been received on the next succeeding Business Day for purposes of calculating interest thereon. All such payments shall be made to the Administrative Agent at its offices at Mail Code IL1-0010, 10 South Dearborn, Chicago, Illinois, 60603-

2003, except payments to be made directly to the Issuing Bank as expressly provided herein and except that payments pursuant to Section 2.15, Section 2.16, Section 2.17 and Section 11.03 shall be made directly to the Persons entitled thereto. The Administrative Agent shall distribute any such payments received by it for the account of any other Person to the appropriate recipient promptly following receipt thereof. If any payment hereunder shall be due on a day that is not a Business Day, the date for payment shall be extended to the next succeeding Business Day, and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension. All payments hereunder shall be made in Dollars.

(b) If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, unreimbursed LC Disbursements, interest, fees and other Obligations then due hereunder, such funds shall be applied (i) first, towards payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, towards payment of principal and unreimbursed LC Disbursements then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and unreimbursed LC Disbursements then due to such parties; provided that, notwithstanding anything to the contrary contained in this Agreement or in any other Loan Document, in the event such funds are received by and available to the Administrative Agent as a result of the exercise of any rights and remedies with respect to any collateral under the Security Documents or as a result of any distribution made pursuant to a bankruptcy proceeding of any Credit Party or any plan of reorganization confirmed in any such proceeding, such funds shall be applied (A)first and ratably to any fees and reimbursements due to the Administrative Agent hereunder or under any other Loan Document, (B) then ratably to the payment of the Obligations (other than Cash Management Obligations), including unreimbursed LC Disbursements (in the manner set forth above) and the Lender Hedging Obligations, in each case, until such Obligations are paid in full, and (C) then ratably to the payment of Cash Management Obligations. Notwithstanding the foregoing, amounts received from any Credit Party that is not an Eligible Contract Participant shall not be applied to any Excluded Swap Obligations owing to a Lender Counterparty (it being understood, that in the event that any amount is applied to Obligations other than Excluded Swap Obligations as a result of this clause, the Administrative Agent shall make such adjustments as it determines are appropriate to distributions pursuant to the foregoing clause (B) from amounts received from Eligible Contract Participants to ensure, as nearly as possible, that the proportional aggregate recoveries with respect to Obligations described in the foregoing clause (B) above by Lender Counterparties that are the holders of any Excluded Swap Obligations are the same as the proportional aggregate recoveries with respect to other Obligations pursuant to the foregoing clause (B) above). The Administrative Agent shall have no responsibility to determine the existence or amount of Lender Hedging Obligations or Cash Management Obligations and may reserve from the application of amounts under this Section amounts distributable in respect of Lender Hedging Obligations or Cash Management Obligations until it has received evidence satisfactory to it of the existence and amount of such Lender Hedging Obligations or Cash Management Obligations.

(c) If any Lender shall, by exercising any right of set-off or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Loans or participations in LC Disbursements resulting in such Lender receiving payment of a greater proportion of the aggregate amount of its Loans and participations in LC Disbursements and accrued interest thereon than the proportion received by any other Lender, then the Lender receiving such greater proportion shall purchase (for cash at face value) participations in the Loans and participations in LC Disbursements of other Lenders to the extent necessary so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Loans and participations in LC Disbursements; provided that (i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and (ii) the provisions of this paragraph shall not be construed to apply to any payment made by the Borrower pursuant to and in accordance with the express

terms of this Agreement or any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or participations in LC Disbursements to any assignee or participant, other than to Borrower or any Subsidiary thereof (as to which the provisions of this paragraph shall apply). Borrower consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against such Borrower rights of set-off and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of such Borrower in the amount of such participation.

(d) Unless the Administrative Agent shall have received notice from the Borrower prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders or the Issuing Bank hereunder that the Borrower will not make such payment, the Administrative Agent may assume that the Borrower have made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Lenders or the Issuing Bank, as the case may be, the amount due. In such event, if the Borrower has not in fact made such payment, then each of the Lenders or the Issuing Bank, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or Issuing Bank with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

(e) Notwithstanding anything to the contrary herein, if any Lender shall fail to make any payment required to be made by it pursuant to Section 2.06(d) or Section 2.06(e), Section 2.07(b), Section 2.18(d) or Section 11.03(c), then the Administrative Agent may, in its discretion (notwithstanding any contrary provision hereof), (i) apply any amounts thereafter received by the Administrative Agent for the account of such Lender to satisfy such Lender's obligations under such Sections until all such unsatisfied obligations are fully paid, and/or (ii) hold any such amounts in a segregated account as cash collateral for, and application to, any funding obligations of such Lender under any such Section, in the case of each of clauses (i) and (ii) above, in any order as determined by the Administrative Agent in its discretion.

Section 2.19 Mitigation Obligations; Replacement of Lenders.

(a) If any Lender requests compensation under Section 2.15, or if Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.17, then such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 2.15 or Section 2.17, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender. The Borrower hereby agree to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment.

(b) If any Lender requests compensation under Section 2.15, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.17, then the Borrower may, at their sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in Section 11.04), all its interests, rights and obligations under this Agreement to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment); provided that (i) the Borrower shall have received the prior written consent of the Administrative Agent (and if a Commitment is being assigned, the Issuing Bank), which consent shall not unreasonably be withheld, (ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and participations in LC Disbursements, accrued

interest thereon, accrued fees and all other amounts payable to it hereunder, from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts) and (iii) in the case of any such assignment resulting from a claim for compensation under Section 2.15 or payments required to be made pursuant to Section 2.17, such assignment will result in a reduction in such compensation or payments. A Lender shall not be required to make any such assignment and delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

(c) If (i) in connection with any proposed amendment, modification, termination, waiver or consent with respect to any of the provisions of this Agreement or any other Loan Document that requires approval of all of the Lenders, each Lender or each Lender affected thereby under Section 11.02, the consent of the Required Lenders shall have been obtained but the consent of one or more such other Lenders (each a "Non-Consenting Lender") whose consent is required has not been obtained, (ii) notwithstanding anything to the contrary contained in Section 3.03, in connection with any increase in the Borrowing Base, the consent of the Super-Majority Lenders shall have been obtained but the consent of all of the Lenders has not been obtained (any non-consenting Lender, a "Non-Consenting Borrowing Base Lender"), or (iii) any Lender becomes a Defaulting Lender; then the Borrower may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, elect to replace such Non-Consenting Lender, Non-Consenting Borrowing Base Lender or Defaulting Lender, as the case may be, as a Lender party to this Agreement in accordance with and subject to the restrictions contained in, and consents required by Section 11.04; provided that (x) the Borrower shall have received the prior written consent of the Administrative Agent (and if a Commitment is being assigned, the Issuing Bank), which consent shall not unreasonably be withheld, and (y) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and participations in LC Disbursements, accrued interest thereon, accrued fees and all other amounts payable to it hereunder, from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts). A Lender shall not be required to make any such assignment and delegation if, prior thereto, as a result of a consent by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply or, in the case of a Defaulting Lender, such Lender is no longer a Defaulting Lender.

Section 2.20 Defaulting Lenders. Notwithstanding any provision of this Agreement to the contrary, if any Lender becomes a Defaulting Lender, then the following provisions shall apply for so long as such Lender is a Defaulting Lender.

(a) Fees shall cease to accrue on the unfunded portion of the Commitment of such Defaulting Lender pursuant to Section 2.12(a).

(b) The Commitment and Credit Exposure of such Defaulting Lender shall not be included in determining whether all Lenders, the Super-Majority Lenders, the Required Lenders or the Majority Lenders have taken or may take any action hereunder (including any consent to any amendment, waiver or other modification pursuant to Section 11.02), provided that (i) any waiver, consent, amendment or modification requiring the consent of such Lender or each affected Lender shall require the consent of such Defaulting Lender, (ii) any waiver, consent, amendment or modification requiring the consent of each Lender shall require the consent of such Defaulting Lender (except in respect of any increases in the Borrowing Base or the Maximum Facility Amount), and (iii) the Commitment of such Defaulting Lender may not be increased or extended without the consent of such Defaulting Lender.

(c) If any LC Exposure exists at the time a Lender becomes a Defaulting Lender then:

(i) all or any part of such LC Exposure of such Defaulting Lender shall be reallocated among the Non-Defaulting Lenders in accordance with their respective Applicable Percentages but

only to the extent (x) the sum (without duplication) of all Non-Defaulting Lenders' Credit Exposures plus such Defaulting Lender's LC Exposure does not exceed the total of all Non-Defaulting Lenders' Commitments, (y) the sum of each Non-Defaulting Lender's Credit Exposure plus its reallocated share of such Defaulting Lender's LC Exposure does not exceed such Non-Defaulting Lender's Commitment, and (z) the conditions set forth in Section 5.02 are satisfied at that time;

(ii) if the reallocation described in clause (i) above cannot, or can only partially, be effected, then the Borrower shall, within one (1) Business Day following notice by the Administrative Agent, cash collateralize for the benefit of the Issuing Bank only the Borrower's obligations corresponding to such Defaulting Lender's LC Exposure (after giving effect to any partial reallocation pursuant to clause (i) above) in accordance with the procedures set forth in Section 2.06(j) for so long as such LC Exposure is outstanding;

(iii) if the Borrower cash collateralizes any portion of such Defaulting Lender's LC Exposure pursuant to clause (ii) above, then the Borrower shall not be required to pay any fees to such Defaulting Lender pursuant to Section 2.12(b) with respect to such Defaulting Lender's LC Exposure during the period such Defaulting Lender's LC Exposure is cash collateralized;

(iv) if the LC Exposure of the Non-Defaulting Lenders is reallocated pursuant to clause (i) above, then the fees payable to the Lenders pursuant to Section 2.12(a) and Section 2.12(b) shall be adjusted in accordance with such Non-Defaulting Lenders' Applicable Percentages; and

(v) if all or any portion of such Defaulting Lender's LC Exposure is neither cash collateralized nor reallocated pursuant to clause (i) or (ii) above, then, without prejudice to any rights or remedies of the Issuing Bank or any Lender hereunder, all letter of credit fees payable under Section 2.12(b) with respect to such Defaulting Lender's LC Exposure shall be payable to the Issuing Bank until and to the extent that such LC Exposure is cash collateralized and/or reallocated.

(d) So long as such Lender is a Defaulting Lender, the Issuing Bank shall not be required to issue, amend or increase any Letter of Credit, unless it is satisfied that the related exposure of such Letter of Credit and the Defaulting Lender's then outstanding LC Exposure will be 100% covered by the Commitments of the Non-Defaulting Lenders and/or cash collateral will be provided by the Borrower in accordance with Section 2.20(c), and participating interests in any such newly issued or increased Letter of Credit shall be allocated among Non-Defaulting Lenders in a manner consistent with Section 2.20(c)(i) (and Defaulting Lenders shall not participate therein).

If (i) a Bankruptcy Event or Bail-In Action with respect to a Parent of any Lender shall occur following the date hereof and for so long as such event shall continue or (ii) the Issuing Bank has a good faith belief that any Lender has defaulted in fulfilling its obligations under one or more other agreements in which such Lender commits to extend credit, the Issuing Bank shall not be required to issue, amend, or increase any Letter of Credit, unless the Issuing Bank shall have entered into arrangements with the Borrower or such Lender, satisfactory to the Issuing Bank to defease any risk to it in respect of such Lender hereunder.

In the event that the Administrative Agent, the Borrower and the Issuing Bank each agrees that a Defaulting Lender has adequately remedied all matters that caused such Lender to be a Defaulting Lender, then the LC Exposure of the Lenders shall be readjusted to reflect the inclusion of such Lender's Commitment and on such date, such Lender shall purchase at par such of the Loans of the other Lenders as

the Administrative Agent shall determine may be necessary in order for such Lender to hold such Loans in accordance with its Applicable Percentage.

ARTICLE III
Borrowing Base

Section 3.01 Initial Borrowing Base. During the period from the Effective Date until the first Redetermination after the Effective Date, the Borrowing Base shall be $4,500,000,000 (the "Initial Borrowing Base"). Notwithstanding the foregoing, the Borrowing Base may be subject to further adjustments from time to time pursuant to Sections 7.03 and 7.05.

Section 3.02 Reserve Report. As soon as available and in any event by March 15 of each calendar year, commencing March 15, 2018, the Borrower shall deliver to the Administrative Agent and each Lender a Reserve Report, prepared as of the first day of the month immediately preceding the date such report is due, in form and substance reasonably satisfactory to the Administrative Agent and audited by an Approved Petroleum Engineer (or, in the case of any Reserve Report due on any date other than March 15 of each year, prepared by petroleum engineers employed by the Borrower or an Approved Petroleum Engineer), said Reserve Report to utilize economic and pricing parameters established from time to time by the Administrative Agent, together with such other information, reports and data concerning the value of the Borrowing Base Properties as the Administrative Agent shall deem reasonably necessary to determine the value of such Borrowing Base Properties. Simultaneously with the delivery to the Administrative Agent and the Lenders of each Reserve Report, the Borrower shall submit to the Administrative Agent and each Lender the Borrower's requested amount of the Borrowing Base as of the next Redetermination Date. Promptly after the receipt by the Administrative Agent of such Reserve Report and the Borrower's requested amount for the Borrowing Base, the Administrative Agent shall submit to the Lenders a recommended amount of the Borrowing Base to become effective for the period commencing on the next Redetermination Date.

Section 3.03 Scheduled Redeterminations of the Borrowing Base; Procedures and Standards. Unless the Borrower is in an Investment Grade Period, and based in part on the Reserve Report made available to the Administrative Agent and the Lenders pursuant to Section 3.02, the Lenders shall redetermine the Borrowing Base on or prior to the next Redetermination Date (or such date promptly thereafter as reasonably possible based on the engineering and other information available to the Lenders). Any Borrowing Base which becomes effective as a result of any Redetermination of the Borrowing Base shall be subject to the following restrictions: (a) such Borrowing Base shall not exceed the amount of the Borrowing Base requested by the Borrower, (b) to the extent such Borrowing Base represents an increase in the Borrowing Base in effect prior to such Redetermination, such Borrowing Base must be approved by all Lenders, and (c) to the extent such Borrowing Base represents a decrease in the Borrowing Base in effect prior to such Redetermination or a reaffirmation of such prior Borrowing Base, such Borrowing Base must be approved by the Administrative Agent and Required Lenders. If a redetermined Borrowing Base is not approved by the Administrative Agent and Required Lenders within fifteen (15) days after the submission to the Lenders by the Administrative Agent of its recommended Borrowing Base pursuant to Section 3.02, or by all Lenders within such fifteen (15) day period in the case of any increase in the Borrowing Base, the Administrative Agent shall notify each Lender that the recommended Borrowing Base has not been approved and request that each Lender submit to the Administrative Agent within ten (10) days thereafter its proposed Borrowing Base. Promptly following the tenth day after the Administrative Agent's request for each Lender's proposed Borrowing Base, the Administrative Agent shall determine the Borrowing Base for such Redetermination by calculating the highest Borrowing Base then acceptable to the Administrative Agent and a number of Lenders sufficient to constitute Required Lenders (or all Lenders in the case of an increase in the Borrowing Base). Each Redetermination shall be made by the Lenders in their sole discretion, but based on the Administrative Agent's and such Lender's usual and customary procedures for

evaluating Oil and Gas Interests as such exist at the time of such Redetermination, and including adjustments to reflect the effect of any Hedging Contracts of the Borrower and the Restricted Subsidiaries as such exist at the time of such Redetermination. The Borrower acknowledges and agrees that each Redetermination shall be based upon the loan collateral value which the Administrative Agent and each Lender in its sole discretion (using such methodology, assumptions and discount rates as the Administrative Agent and such Lender customarily uses in assigning collateral value to Oil and Gas Interests) assigns to the Borrowing Base Properties at the time in question and based upon such other credit factors (including, without limitation, the assets, liabilities, cash flow, interest note changes, business, properties, prospects, management and ownership of the Credit Parties) as the Administrative Agent and such Lender customarily considers in evaluating similar oil and gas credits. If the Borrower does not furnish all information, reports and data required to be delivered by any date specified in this Article III, unless such failure is not the fault of the Borrower, the Administrative Agent and Lenders may nonetheless designate the Borrowing Base at any amounts which the Administrative Agent and Lenders in their reasonable discretion determine and may redesignate the Borrowing Base from time to time thereafter until the Administrative Agent and Lenders receive all such information, reports and data, whereupon the Administrative Agent and Lenders shall designate a new Borrowing Base, as described above. **IT IS EXPRESSLY UNDERSTOOD THAT THE ADMINISTRATIVE AGENT AND LENDERS HAVE NO OBLIGATION TO DESIGNATE THE BORROWING BASE AT ANY PARTICULAR AMOUNTS, EXCEPT IN THE EXERCISE OF THEIR DISCRETION, WHETHER IN RELATION TO THE MAXIMUM FACILITY AMOUNT OR OTHERWISE.**

Section 3.04 Special Redeterminations. In addition to Scheduled Redeterminations and any adjustments made by the Required Lenders to the Borrowing Base pursuant to Section 7.03 and Section 7.05, (a) the Borrower may request a Special Redetermination of the Borrowing Base once between each Scheduled Redetermination, (b) the Required Lenders may request a Special Redetermination once between each Scheduled Redetermination, and (c) the Borrower may request a Special Redetermination of the Borrowing Base if the aggregate PV-9 of all Acquisitions since the most recent Redetermination Date or Special Redetermination exceeds 10% of the Borrowing Base then in effect. Any request by Borrower pursuant to this Section 3.04 shall be submitted to the Administrative Agent and each Lender and at the time of such request (or within fifteen (15) days thereafter in the case of the Reserve Report) Borrower shall (1) deliver to the Administrative Agent and each Lender a Reserve Report prepared as of a date prior to the date of such request that is reasonably acceptable to the Administrative Agent and such other information which the Administrative Agent shall reasonably request, and (2) notify the Administrative Agent and each Lender of the Borrowing Base requested by Borrower in connection with such Special Redetermination. Any request by Required Lenders pursuant to this Section 3.04 shall be submitted to the Administrative Agent and the Borrower. Any Special Redetermination shall be made by the Administrative Agent and Lenders in accordance with the procedures and standards set forth in Section 3.03; provided that no Reserve Report is required to be delivered to the Administrative Agent or the Lenders in connection with any Special Redetermination requested by the Required Lenders pursuant to this Section 3.04.

Section 3.05 Notice of Redetermination. Promptly following any Redetermination of the Borrowing Base, the Administrative Agent shall notify the Borrower of the amount of the redetermined Borrowing Base, which Borrowing Base shall be effective as of the date specified in such notice, and such Borrowing Base shall remain in effect for all purposes of this Agreement until the next Redetermination Date, subject to further adjustments from time to time pursuant to Section 7.03(d) and Section 7.05(h).

Section 3.06 Borrowing Base During Investment Grade Period. Notwithstanding anything in this Article to the contrary, during any Investment Grade Period, (a) the provisions of Section 2.11, Section 3.01, Section 3.03, Section 3.04, and Section 3.05 will be deemed to be inapplicable and shall be disregarded for all purposes, and (b) the Borrower is not required to comply with Section 3.02 so long as the Borrower has either (i) an unsecured rating from Moody's of Baa3 or better or (ii) an unsecured rating from S&P of

BBB- or better. Upon the end of any Investment Grade Period, the Borrowing Base will be the most recent Borrowing Base in effect until the next Redetermination Date, subject to further adjustments from time to time pursuant to Section 3.04.

ARTICLE IV
Representations and Warranties

Borrower represents and warrants to the Lenders that:

Section 4.01 Organization; Powers. Each Credit Party and each Restricted Subsidiary is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, has all requisite power and authority to carry on its business as now conducted and is qualified to do business in, and is in good standing in, every jurisdiction where the character of the properties owned or held by it or the nature of the business transacted by it makes such qualification necessary.

Section 4.02 Authorization; Enforceability. The Transactions are within each Credit Party's corporate, limited liability company or partnership powers and have been duly authorized by all necessary corporate, limited liability company or partnership and, if required, stockholder action. This Agreement has been duly executed and delivered by each Credit Party and this Agreement and the other Loan Documents, when duly executed are delivered, constitute the legal, valid and binding obligations of each Credit Party, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

Section 4.03 Governmental Approvals; No Conflicts. The Transactions (a) do not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority, except such as have been obtained or made and are in full force and effect or have been made or to be made in connection with the filing of the Security Documents to secure the Obligations, (b) will not violate any applicable law or regulation or the charter, by-laws or other Organizational Documents of Borrower or any Restricted Subsidiary or any order of any Governmental Authority, (c) will not violate or result in a default under any material indenture, agreement, instrument, license, order or permit binding upon Borrower or any Restricted Subsidiary or any of their respective assets, or give rise to a right thereunder to require any payment to be made by Borrower or any Restricted Subsidiary, and (d) will not result in the creation or imposition of any Lien on any asset of Borrower or, any Restricted Subsidiary other than Permitted Liens.

Section 4.04 Financial Condition; No Material Adverse Change.

(a) The Borrower has heretofore furnished to the Lenders (i) the audited Consolidated balance sheet and related statements of income, members' equity and cash flows of Borrower and its Restricted Subsidiaries as of and for the fiscal year ended December 31, 2016, reported on by KMPG, LLP, independent public accountants, and (ii) the unaudited Consolidated balance sheet and related statements of income, members' equity and cash flows of Borrower and its Restricted Subsidiaries as of and for the fiscal quarter ended June 30, 2017, certified by its Financial Officer to the effect that such financial statements present fairly, in all material respects, the financial position and results of operations and cash flows of Borrower and its Restricted Subsidiaries as of such dates and for such periods in accordance with GAAP, subject to year-end audit adjustments and the absence of footnotes in the case of the statements referred to in paragraph (ii) above.

(b) Since December 31, 2016, no event or circumstance which has had or could reasonably be expected to have a Material Adverse Effect has occurred.

Section 4.05 Intellectual Property. Borrower and each Restricted Subsidiary owns, or is licensed to use, all trademarks, tradenames, copyrights, patents and other intellectual property material to its business, and the use thereof by such Borrower and such Restricted Subsidiaries, as the case may be, does not infringe upon the rights of any other Person, except for any such infringements that, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

Section 4.06 Litigation and Environmental Matters.

(a) There are no actions, suits, investigations or proceedings by or before any arbitrator or Governmental Authority pending against or, to the knowledge of the Borrower, threatened against or affecting Borrower or any Restricted Subsidiary, (i) as to which there is a reasonable possibility of an adverse determination and that, if adversely determined, could reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect or (ii) that involve this Agreement or the Transactions.

(b) Except with respect to any matters that, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect, no Borrower nor any Restricted Subsidiary, to Borrower's knowledge, (i) has failed to comply with any Environmental Law or to obtain, maintain or comply with any permit, license or other approval required under any Environmental Law, (ii) has become subject to any Environmental Liability, (iii) has received written notice of any claim with respect to any Environmental Liability or (iv) knows of any basis for any claim with respect to any Environmental Liability.

Section 4.07 Compliance with Laws and Agreements. Borrower and each Restricted Subsidiary is in compliance with all Laws, regulations and orders of any Governmental Authority applicable to it or its property and all indentures, agreements and other instruments binding upon it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

Section 4.08 Investment Company Status. No Borrower and no Restricted Subsidiary is an "investment company" as defined in, or subject to regulation under, the Investment Company Act of 1940.

Section 4.09 Taxes. Borrower and each Restricted Subsidiary has timely filed or caused to be filed all Tax returns and reports required to have been filed and has paid or caused to be paid all Taxes required to have been paid by it, except (a) Taxes that are being contested in good faith by appropriate proceedings and for which such Borrower or such Restricted Subsidiary, as applicable, has set aside on its books adequate reserves or (b) to the extent that the failure to do so could not reasonably be expected to result in a Material Adverse Effect.

Section 4.10 ERISA. No ERISA Event has occurred or is reasonably expected to occur that, when taken together with all other such ERISA Events for which liability is reasonably expected to occur, could reasonably be expected to result in a Material Adverse Effect. The present value of all accumulated benefit obligations under each Plan did not, as of the date of the most recent financial statements reflecting such amounts, exceed by more than $500,000 the fair market value of the assets of such Plan, and the present value of all accumulated benefit obligations of all underfunded Plans did not, as of the date of the most recent financial statements reflecting such amounts, exceed by more than $500,000 the fair market value of the assets of all such underfunded Plans.

Section 4.11 Disclosure. Borrower has disclosed to the Lenders all agreements, instruments and corporate or other restrictions to which it or any Restricted Subsidiary is subject, and all other matters known to it, that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. None of the other reports, financial statements, certificates or other information furnished

by or on behalf of Borrower or any Restricted Subsidiary to the Administrative Agent or any Lender in connection with the negotiation of this Agreement or delivered hereunder (as modified or supplemented by other information so furnished) when taken as a whole contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading as of the date made or deemed made; provided that, with respect to projected financial information, Borrower represents only that such information was prepared in good faith based on assumptions believed to be reasonable at the time.

Section 4.12 Labor Matters. There are no strikes, lockouts or slowdowns against Borrower or any of its Restricted Subsidiaries pending or, to the knowledge of Borrower, threatened that could reasonably be expected to have a Material Adverse Effect. The hours worked by and payments made to employees of Borrower and its Restricted Subsidiaries have not been in violation of the Fair Labor Standards Act or any other Law dealing with such matters to the extent that such violation could reasonably be expected to have a Material Adverse Effect.

Section 4.13 Capitalization. Schedule 4.13 lists, as of the Effective Date, (a) each Subsidiary that is an Unrestricted Subsidiary, (b) for Borrower, its full legal name, its jurisdiction of organization and its federal tax identification number, and (c) for each Restricted Subsidiary, its full legal name, its jurisdiction of organization, its federal tax identification number and the number of shares of capital stock or other Equity Interests outstanding and the owner(s) of such shares or Equity Interests.

Section 4.14 Margin Stock. No Borrower and no Restricted Subsidiary is engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulation U issued by the Board), and no part of the proceeds of any Loan will be used to purchase or carry any margin stock or to extend credit to others for the purpose of purchasing or carrying margin stock.

Section 4.15 Title to Properties; Licenses. Each Credit Party and each Restricted Subsidiary has good and defensible title to, or valid leasehold interests in or rights to exploit under farmout agreements, all of the Collateral owned or leased by such Person. All of each Credit Party and each Restricted Subsidiary's other material properties and assets necessary or used in the ordinary conduct of its business, are free and clear of all Liens, encumbrances, or adverse claims other than Permitted Liens and free of all impediments to the use of such properties and assets in the ordinary course of such Person's business, except that no representation or warranty, express, implied or statutory, is made with respect to any Hydrocarbon Interest which is not included in Borrowing Base Properties. Each Credit Party and each Restricted Subsidiary owns the net revenue interests in production attributable to the wells and units evaluated in the most recently delivered Reserve Report. The ownership of such properties does not in the aggregate in any material respect obligate such Credit Party or such Restricted Subsidiary to bear the costs and expenses relating to the maintenance, development and operations of such properties in an amount materially in excess of the working interest of such properties set forth in the most recently delivered Reserve Report. Upon delivery of each Reserve Report furnished to the Lenders pursuant to Section 6.01(g), the statements made in the preceding sentences of this section and in Section 4.19 shall be true in all material respects with respect to such Reserve Report.

Section 4.16 Insurance. The certificate signed by the Financial Officer that attests to the existence and adequacy of, and summarizes, the property and casualty insurance program maintained by the Credit Parties that has been furnished by the Borrower to the Administrative Agent and the Lenders as of the Effective Date, is complete and accurate in all material respects as of the Effective Date and demonstrates the Borrower's and the Restricted Subsidiaries' compliance with Section 6.05.

Section 4.17 Solvency.

(a) Immediately after the consummation of the Transactions and immediately following the making of the initial Borrowing, if any, made on the Effective Date and after giving effect to the application of the proceeds thereof, (1) the fair value of the assets of the Credit Parties on a combined basis, at a fair valuation, will exceed the debts and liabilities, subordinated, contingent or otherwise, of the Credit Parties on a combined basis; (2) the present fair saleable value of the real and personal property of the Credit Parties on a combined basis will be greater than the amount that will be required to pay the probable liability of the Credit Parties on a combined basis on their debts and other liabilities, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured; (3) the Credit Parties on a combined basis will be able to pay their debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured; and (4) the Credit Parties on a combined basis will not have unreasonably small capital with which to conduct the businesses in which they are engaged as such businesses are now conducted and are proposed to be conducted after the date hereof.

(b) The Credit Parties do not intend to, and do not believe that they will, incur debts beyond their ability to pay such debts as they mature, taking into account the timing of and amounts of cash to be received by it and the timing of the amounts of cash to be payable on or in respect of its Indebtedness.

Section 4.18 Leases and Contracts; Performance of Obligations. To the best of Borrower's knowledge, the leases, contracts, servitudes and other agreements forming a part of the Borrowing Base Properties are in full force and effect. No Borrower has received a written notice of default under any such contracts or agreements that remains uncured that could reasonably be expected to result in a Material Adverse Effect. Except for any rents, royalties and other payments that in the aggregate do not exceed $1,000,000 or are being contested in compliance with Section 6.04, all rents, royalties and other payments due and payable under such leases, contracts, servitudes and other agreements, or under any Permitted Liens, or otherwise attendant to the ownership or operation of any Oil and Gas Interests, have been properly and timely paid. No Credit Party has received written notice of a default that remains uncured with respect to its obligations (and no Credit Party has received written notice of any default by any third party with respect to such third party's obligations) under any such leases, contracts, servitudes and other agreements, or under any Permitted Liens, or otherwise attendant to the ownership or operation of any part of the Borrowing Base Properties, where such default could reasonably be expected to materially and adversely affect the ownership or operation of such Borrowing Base Properties. No Credit Party is currently accounting for any royalties, or overriding royalties or other payments out of production, on a basis (other than delivery in kind) less favorable to such Credit Party than proceeds received by such Credit Party (calculated at the well) from sale of production, and no Credit Party has any liability (or alleged liability) to account for the same on any such less favorable basis that could reasonably be expected to result in a Material Adverse Effect.

Section 4.19 Sale of Production. Except (a) as required by law, (b) offsetting, netting and other similar arrangements entered into in the ordinary course of business and (c) as set forth in Schedule 4.19, (i) no Oil and Gas Interest is subject to any contractual or other arrangement whereby payment for production is or can be deferred for a substantial period after the month in which such production is delivered (in the case of Crude Oil, not in excess of sixty (60) days, and in the case of Natural Gas, not in excess of ninety (90) days) and (ii) no Oil and Gas Interest is subject to any contractual or other arrangement whereby payments are made to a Credit Party or Restricted Subsidiary other than by checks, drafts, wire transfer advises or other similar writings, instruments or communications for the immediate payment of money. Except for production sales contracts and other agreements relating to the marketing of production that are listed on Schedule 4.19, no Oil and Gas Interest is subject to any long-term contract or any other arrangement for the sale of production (or otherwise related to the marketing of production) which provides for fixed prices which cannot be canceled on 120 days' (or less) notice without material penalty. Except as

set forth in Schedule 4.19, no Credit Party, has received prepayments (including payments for gas not taken pursuant to "take or pay" or other similar arrangements) for any Hydrocarbons produced or to be produced from any Oil and Gas Interests after the date hereof. Except as set forth in Schedule 4.19, no Oil and Gas Interest is subject to any "take or pay" or other similar arrangement (A) which can be satisfied in whole or in part by the production or transportation of gas from other properties or (B) as a result of which production from any Oil and Gas Interest may be required to be delivered to one or more third parties without payment (or without full payment) therefor as a result of payments made, or other actions taken, with respect to other properties. No Oil and Gas Interest is subject to a gas balancing arrangement under which one or more third parties may take a portion of the production attributable to such Oil and Gas Interest without payment (or without full payment) therefor as a result of production having been taken from, or as a result of other actions or inactions with respect to, other properties. No Oil and Gas Interest is subject at the present time to any regulatory refund obligation and, to the best of each Credit Party's knowledge, no facts exist which might cause the same to be imposed.

Section 4.20 Operation of Oil and Gas Interests. The Oil and Gas Interests (and all properties unitized therewith) are being (and, to the extent the same could adversely affect the ownership or operation of the Oil and Gas Interests after the date hereof, have in the past been) maintained, operated and developed in a good and workmanlike manner, in accordance with prudent industry standards and in compliance with (a) all applicable Laws, (b) all oil, gas or other mineral leases and other material contracts and agreements forming a part of the Oil and Gas Interests and (c) the Permitted Liens, except with respect to clauses (a), (b) and (c) above, where the failure to so comply, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect. To the best of Borrower's knowledge, no Oil and Gas Interest is subject to having allowable production after the date hereof reduced below the full and regular allowable (including the maximum permissible tolerance) because of any overproduction (whether or not the same was permissible at the time) prior to the date hereof. There are no dry holes, or otherwise inactive wells, located on the Borrowing Base Properties, except for wells that have been or are in the process of being properly plugged and abandoned. Each Credit Party and each Restricted Subsidiary has all governmental licenses and permits necessary or appropriate to own and operate its material Oil and Gas Interests. No Credit Party nor any Restricted Subsidiary has received written notice of any violations in respect of any such licenses or permits that could reasonably be expected to result in a Material Adverse Effect.

Section 4.21 Ad Valorem and Severance Taxes; Title Litigation. No Credit Party has received a written notice of a material default with respect to any ad valorem taxes assessed against its Oil and Gas Interests or any part thereof and all production, severance and other taxes assessed against, or measured by, the production or the value, or proceeds, of the production therefrom. There are no suits, actions, written claims, investigations, written inquiries, proceedings or demands pending (or, to any Credit Party's knowledge, threatened in writing) which might affect the Oil and Gas Interests, including any which challenge or otherwise pertain to any Credit Party's title to any Borrowing Base Property or rights to produce and sell Crude Oil and Natural Gas therefrom that could reasonably be expected to result in a Material Adverse Effect.

Section 4.22 Anti-Corruption Laws and Sanctions. The Borrower has implemented and maintains in effect policies and procedures designed to ensure compliance by the Borrower, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions, and the Borrower, its Subsidiaries and their respective officers and directors and, to the knowledge of the Borrower, its employees and agents, are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. None of (a) the Borrower, any Subsidiary or any of their respective directors, officers or employees, or (b) to the knowledge of the Borrower, any agent of the Borrower or any Subsidiary that will act in any capacity in connection with or benefit from the credit facility established hereby, is a Sanctioned Person. No Borrowing, Letter of Credit, use of proceeds, Transaction

or other transaction contemplated by this Agreement or the other Loan Documents will violate Anti-Corruption Laws or applicable Sanctions.

Section 4.23 EEA Financial Institutions. No Credit Party is an EEA Financial Institution.

ARTICLE V
Conditions

Section 5.01 Effective Date. The obligations of the Lenders to make Loans and of each Issuing Bank to permit the Letters of Credit issued under the Existing Credit Agreement to remain outstanding and to issue Letters of Credit hereunder shall not become effective until the date on which each of the following conditions is satisfied (or waived in accordance with Section 11.02):

(a) The Administrative Agent (or its counsel) shall have received from each party hereto either (i) a counterpart of this Agreement signed on behalf of such party or (ii) written evidence reasonably satisfactory to the Administrative Agent (which may include telecopy transmission of a signed signature page of this Agreement) that such party has signed a counterpart of this Agreement.

(b) The Administrative Agent shall have received a favorable written opinion (addressed to the Administrative Agent and the Lenders and dated the Effective Date) of Vinson & Elkins LLP, counsel for the Credit Parties, substantially in the form of Exhibit B, and covering such other matters relating to the Credit Parties, this Agreement or the Transactions as the Majority Lenders shall reasonably request. The Credit Parties hereby request such counsel to deliver such opinion.

(c) The Administrative Agent shall have received such documents and certificates as the Administrative Agent or its counsel may reasonably request relating to the organization, existence and good standing of each Credit Party, the authorization of the Transactions and any other legal matters relating to the Credit Parties, this Agreement or the Transactions, all in form and substance satisfactory to the Administrative Agent and its counsel.

(d) The Administrative Agent shall have received a certificate, dated the Effective Date and signed by the President, a Vice President or a Financial Officer of Borrower, confirming that the Credit Parties have (i) complied with the conditions set forth in paragraphs (a), (b) and (d) of Section 5.02, (ii) complied with the conditions set forth in paragraph (k) of this Section 5.01, and (iii) complied with the covenants set forth in Section 6.05 (and demonstrating such compliance by the attachment of an insurance summary and insurance certificates evidencing the coverage described in such summary).

(e) The Administrative Agent shall have received the Security Agreement, Pledge Agreement, and all other Loan Documents duly executed by all parties thereto and in each case in form and substance satisfactory to the Administrative Agent.

(f) The Administrative Agent and the Lenders shall have received all fees and other amounts due and payable on or prior to the Effective Date under this Agreement and the Fee Letter, and, to the extent invoiced, reimbursement or payment of all out-of-pocket expenses required to be reimbursed or paid by the Borrower hereunder, including all reasonable fees, expenses and disbursements of counsel for the Administrative Agent to the extent invoiced on or prior to the Effective Date, together with such additional amounts as shall constitute such counsel's reasonable estimate of expenses and disbursements to be incurred by such counsel in connection with the recording and filing of Mortgages (and/or amendments to existing Mortgages) and financing statements; provided, that, such estimate shall not thereafter preclude further settling of accounts between the Borrower and the Administrative Agent.

(g) The Administrative Agent shall have received promissory notes duly executed by Borrower for each Lender that has requested the delivery of a promissory note pursuant to and in accordance with Section 2.09(e).

(h) In the event any Loans are made on the Effective Date, the Administrative Agent shall have received a Borrowing Request acceptable to the Administrative Agent and in accordance with Section 2.05 setting forth the Loans requested by the Borrower on the Effective Date, the Type and amount of each Loan and the accounts to which such Loans are to be funded; provided that all Borrowings on the Effective Date shall be ABR Borrowings.

(i) If the initial Borrowing includes the issuance of a Letter of Credit, the Administrative Agent shall have received a written request in accordance with Section 2.06 of this Agreement.

(j) The Administrative Agent and the Lenders shall have received the financial statements described in Section 4.04(a) and the Projections.

(k) The Administrative Agent shall have received evidence reasonably satisfactory to the Administrative Agent, that effective upon the consummation of the Transactions, Aggregate Credit Exposure will not exceed the Loan Limit.

(l) The Administrative Agent shall have received Mortgages and title information, in each case, reasonably satisfactory to the Administrative Agent with respect to the Borrowing Base Properties, or the portion thereof, as required by Sections 6.09 and 6.10.

(m) The Administrative Agent shall have received such financing statements as Administrative Agent shall specify to fully evidence and perfect all Liens contemplated by the Loan Documents, all of which shall be filed of record in such jurisdictions as the Administrative Agent shall require in its sole discretion.

(n) The Administrative Agent shall have received such other instruments and documents incidental and appropriate to the transaction provided for herein as the Administrative Agent or its special counsel may reasonably request prior to the Effective Date, and all such documents shall be in form and substance satisfactory to the Administrative Agent.

(o) Each Departing Lender shall have received payment in full of all its outstanding "Obligations" owing under the Existing Credit Agreement (other than obligations to pay contingent indemnity obligations and other contingent obligations owing to it under the "Loan Documents," as defined in the Existing Credit Agreement).

The Administrative Agent shall notify the Borrower and the Lenders of the Effective Date, and such notice shall be conclusive and binding. Notwithstanding the foregoing, the obligations of the Lenders (other than the Departing Lenders) to continue the Existing Loans and the obligations of the Lenders to make Loans and of the Issuing Bank to permit the Letters of Credit issued under the Existing Credit Agreement to remain outstanding and to issue Letters of Credit hereunder shall not become effective unless each of the foregoing conditions is satisfied (or waived pursuant to Section 11.02) at or prior to 3:00 p.m. on October 30, 2017 (and, in the event such conditions are not so satisfied or waived, the Aggregate Commitment shall terminate at such time).

Section 5.02 Each Credit Event. The obligation of each Lender to make a Loan on the occasion of any Borrowing, and of the Issuing Bank to issue, amend, renew or extend any Letter of Credit, is subject to the satisfaction of the following conditions:

(a) The representations and warranties of each Credit Party set forth in this Agreement and the other Loan Documents shall be true and correct in all material respects (without duplication of any materiality qualifier contained therein) on and as of the date of such Borrowing or the date of issuance, amendment, renewal or extension of such Letter of Credit, as applicable except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct as of such earlier date.

(b) At the time of and immediately after giving effect to such Borrowing or the issuance, amendment, renewal or extension of such Letter of Credit, as applicable, no Default shall have occurred and be continuing.

(c) At the time of and immediately after giving effect to such Borrowing or the issuance, amendment, renewal or extension of such Letter of Credit, as applicable, no Borrowing Base Deficiency exists or would be caused thereby.

(d) At the time of and immediately after giving effect to such Borrowing or the issuance, amendment, renewal or extension of such Letter of Credit, as applicable, no event or circumstance which could reasonably be expected to have a Material Adverse Effect shall have occurred.

Each Borrowing and each issuance, amendment, renewal or extension of a Letter of Credit shall be deemed to constitute a representation and warranty by the Borrower on the date thereof as to the matters specified in paragraphs (a), (b), (c) and (d) of this Section.

ARTICLE VI
Affirmative Covenants

Until the Aggregate Commitment has expired or been terminated and the principal of and interest on each Loan and all fees payable hereunder shall have been paid in full and all Letters of Credit shall have expired or terminated and all LC Disbursements shall have been reimbursed, each Credit Party covenants and agrees with the Lenders that:

Section 6.01 Financial Statements; Other Information. The Borrower will furnish to the Administrative Agent and each Lender:

(a) as soon as available and in any event within five days after the date on which such financial statements are required to be filed with the SEC (after giving effect to permitted extensions) (or, if such financial statements are not required to be filed with the SEC, on or before the date that is 90 days after the end of each such fiscal year), the audited Consolidated balance sheet and related statements of operations, shareholders' equity and cash flows of Borrower and its Subsidiaries as of the end of and for such year, setting forth in each case in comparative form the figures for the previous fiscal year, all reported on by an independent public accounting firm reasonably acceptable to Administrative Agent (without a "going concern" or like qualification or exception (other than with respect to, or resulting from the occurrence of the Maturity Date within one year from the date such opinion is delivered) and without any qualification or exception as to the scope of such audit) to the effect that such Consolidated financial statements present fairly in all material respects the financial condition and results of operations of Borrower and its Subsidiaries on a Consolidated basis in accordance with GAAP consistently applied. Such consolidated financial statements shall include condensed consolidating schedules showing the balance sheets, statements of operations, and statements of cash flows showing the separate accounts of the Borrower, the Restricted Subsidiaries, and the Unrestricted Subsidiaries for the same periods presented for the consolidated financial statements of the Borrower and its Subsidiaries;

(b) as soon as available and in any event within five days after the date on which such financial statements are required to be filed with the SEC (after giving effect to any permitted extensions) with respect to each of the first three quarterly accounting periods in each fiscal year of the Borrower (or, if such financial statements are not required to be filed with the SEC, on or before the date that is forty-five (45) days after the end of each such quarterly accounting period), (i) the Consolidated balance sheet and related statements of operations, shareholders' equity and cash flows of Borrower and its Subsidiaries as of the end of and for such fiscal quarter and the then elapsed portion of the fiscal year, such Consolidated financial statements shall be certified by Borrower's Financial Officer as presenting fairly in all material respects the financial condition and results of operations of Borrower and its Subsidiaries on a Consolidated basis in accordance with GAAP consistently applied, subject to normal year-end audit adjustments and the absence of footnotes. Such consolidated financial statements shall include condensed consolidating schedules showing the balance sheets, statements of operations, and statements of cash flows showing the separate accounts of the Borrower, the Restricted Subsidiaries, and the Unrestricted Subsidiaries for the same periods presented for the consolidated financial statements of the Borrower and its Subsidiaries;

(c) concurrently with any delivery of financial statements under paragraph (a) or (b) above, a certificate in a form reasonably acceptable to Administrative Agent signed by a Financial Officer of Borrower (i) certifying (A) that he or she has reviewed the Loan Documents and (B) as to whether a Default has occurred and, if a Default has occurred, specifying the details thereof and any action taken or proposed to be taken with respect thereto and (ii) setting forth reasonably detailed calculations demonstrating compliance with Section 7.11 or Section 7.12, as applicable;

(d) [reserved;]

(e) as soon as available, and in any event no later than March 15 of each calendar year, a report describing by lease or unit the gross volume of production and sales attributable to production during such previous fiscal year from the properties described in the most recent Reserve Report and describing the related severance taxes, other taxes, leasehold operating expenses, and capital costs attributable thereto and incurred during such previous fiscal year;

(f) if requested by Administrative Agent, within sixty (60) days after the end of each fiscal quarter, a list, by name and address, of those Persons who have purchased production during such fiscal quarter from the Oil and Gas Interests, giving each such purchaser's owner number for the Credit Parties and each such purchaser's property number for each such Oil and Gas Interest;

(g) as soon as available, and in any event no later than March 15 of each calendar year, and promptly following notice of a Special Redetermination requested by the Borrower under Section 3.04, the Reserve Report required on such date pursuant to Section 3.02. The Reserve Report shall be reasonably satisfactory to Administrative Agent, shall take into account any "over-produced" status under gas balancing arrangements, and shall contain information and analysis comparable in scope to that contained in the Reserve Report used to determine the Initial Borrowing Base. The Reserve Report shall distinguish (or shall be delivered together with a certificate from an appropriate officer of Borrower which distinguishes) those properties treated in the report which are Mortgaged Properties from those properties treated in the report which are not Mortgaged Properties;

(h) as soon as available, and in any event within forty-five (45) days after the end of each fiscal quarter, a certificate of a Financial Officer of Borrower setting forth as of the end of such fiscal quarter, (i) a complete list of all Hedging Contracts of the Borrower and its Subsidiaries, the material terms thereof (including the type, term, effective date, termination date and notional amounts or volumes), the net mark to market value thereof, any margin required or supplied under any credit support document, and the

counterparty to each such Hedging Contract, and (ii) the aggregate Projected Oil and Gas Production for the forthcoming five (5) year period;

(i) as soon as available, and in any event within ninety (90) days after the end of each fiscal year, a business and financial plan for Borrower, together with a capital expenditure schedule for Borrower (in form consistent with previous business and financial plans previously provided to Administrative Agent under the Existing Credit Agreement), setting forth for the first year thereof, monthly or quarterly financial projections and budgets for such Borrower, and thereafter yearly financial projections and budgets during the Availability Period;

(j) if Borrower or any of their respective Restricted Subsidiaries makes an Qualified Acquisition or Qualified Disposition of assets during any fiscal quarter and such assets are included in the calculation of Consolidated EBITDAX for such fiscal quarter, the Borrower shall deliver to Administrative Agent and Lenders, together with the financial statements described in Section 6.01(a) or (b), as applicable, pro forma financial statements of Borrower for such period prepared on a Consolidated basis as if such assets had been Acquired or Disposed of, as applicable, on the first day of such fiscal quarter;

(k) concurrently with the delivery of the Reserve Report required under paragraph (g) above and from time to time at the Borrower's election; supplements to Schedule 4.19 to the extent necessary to ensure any such representations and warranties relating to Schedule 4.19 are true and correct in all material respects; provided that such supplements shall not include disclosure of any contract, agreement, arrangement, event, occurrence, condition or other information which, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect; provided further that the delivery or receipt of such subsequent disclosure shall not constitute a waiver by the Administrative Agent or any Lender or a cure of any Default or Event of Default resulting in connection with the matters disclosed on such supplement;

(l) promptly following any request therefor, such other information regarding the operations, business affairs and financial condition of any Credit Party, or compliance with the terms of this Agreement, as the Administrative Agent or any Lender may reasonably request, including, without limitation, the delivery of consolidating financial statements of Borrower and its Subsidiaries; and

(m) together with the Reserve Reports required under paragraph (g) above, a complete list of all Hedging Contracts of the Borrower and its Subsidiaries then in effect, the material terms thereof (including the type, term, effective date, termination date and notional amounts or volumes), the net mark to market value thereof, any margin required or supplied under any credit support document, and the counterparty to each such Hedging Contract.

Section 6.02 Notices of Material Events. The Borrower will furnish to the Administrative Agent and each Lender prompt written notice of the following:

(a) as soon as possible, but in any event within five (5) days of obtaining knowledge thereof, the occurrence of any Default;

(b) as soon as possible, but in any event within thirty (30) days after the filing or commencement of any action, suit or proceeding by or before any arbitrator or Governmental Authority against or affecting any Credit Party or any Affiliate thereof that, if adversely determined, could reasonably be expected to result in a Material Adverse Effect;

(c) as soon as possible, but in any event within thirty (30) days after becoming aware of the occurrence of any ERISA Event that, alone or together with any other ERISA Events that have occurred,

could reasonably be expected to result in liability of the Borrower and the Restricted Subsidiaries in an aggregate amount exceeding $25,000,000;

(d) as soon as possible, but in any event within thirty (30) days after any notice or claim to the effect that any Credit Party is or may be liable to any Person as a result of the release by any Credit Party, or any other Person of any Hazardous Material into the environment, which could reasonably be expected to have a Material Adverse Effect;

(e) as soon as possible, but in any event within thirty (30) days after any notice alleging any violation of any Environmental Law by any Credit Party, which could reasonably be expected to result in liability in excess of $25,000,000;

(f) as soon as possible, but in any event within thirty (30) days after the receipt by Borrower or any Restricted Subsidiary of any management letter or comparable analysis prepared by the auditors for Borrower or any such Restricted Subsidiary;

(g) as soon as possible, but in any event within thirty (30) days after any other development that results in, or could reasonably be expected to result in, a Material Adverse Effect; and

(h) at least twenty (20) Business Days prior to any changes of any Credit Party's type of organization or state of formation under the Uniform Commercial Code (or such shorter period as permitted by the Administrative Agent in its discretion).

Each notice delivered under this Section shall be accompanied by a statement of a Financial Officer or other executive officer of Borrower setting forth the details of the event or development requiring such notice and any action taken or proposed to be taken with respect thereto.

Section 6.03 Existence; Conduct of Business. Borrower will, and will cause each Restricted Subsidiary to, do or cause to be done all things necessary to preserve, renew and keep in full force and effect its legal existence and the rights, licenses, permits, privileges and franchises material to the conduct of its business and will qualify to do business in all states or jurisdictions where required by law, except where the failure to so qualify could not reasonably be expected to result in a Material Adverse Change; provided that the foregoing shall not prohibit any merger, consolidation, liquidation or dissolution permitted under Section 7.04 or any sale, conveyance or other transfer permitted under Section 7.05.

Section 6.04 Payment of Obligations. Borrower will, and will cause each Restricted Subsidiary to, timely pay its obligations, including Tax liabilities before the same shall become delinquent or in default, except where (a) the validity or amount thereof is being contested in good faith by appropriate proceedings, (b) such Borrower or such Restricted Subsidiary, as applicable, has set aside on its books adequate reserves with respect thereto in accordance with GAAP or (c) the failure to make payment pending such contest could not reasonably be expected to result in a Material Adverse Effect.

Section 6.05 Maintenance of Properties; Insurance. Borrower will, and will cause each Restricted Subsidiary and use commercially reasonable efforts to cause each operator of Borrowing Base Properties to, (a) keep and maintain all property material to the conduct of its business in good working order and condition, ordinary wear and tear excepted, in accordance with prudent industry standards in the surrounding area and in compliance in all material respects with all laws and all applicable contracts, servitudes, leases and agreements, and from time make all appropriate repairs, renewals and replacements needed to enable the business and operations carried on in connection therewith to be promptly and advantageously conducted at all times consistent with such Person's past practices and (b) maintain, with financially sound and reputable insurance companies, insurance in such amounts and against such risks as

are customarily maintained by companies engaged in the same or similar businesses operating in the same or similar locations. On or prior to the Effective Date and thereafter, upon request of the Administrative Agent, the Borrower will furnish or cause to be furnished to the Administrative Agent from time to time a summary of the respective insurance coverage of Borrower and its Restricted Subsidiaries in form and substance reasonably satisfactory to the Administrative Agent, and, if requested, will furnish the Administrative Agent copies of the applicable policies. The Borrower will cause any insurance policies covering any such property to be endorsed (x) to provide that such policies may not be cancelled, reduced or affected in any manner for any reason without ten (10) days prior notice to Administrative Agent, (y) to name the Administrative Agent as an additional insured (in the case of all liability insurance policies) and loss payee (in the case of all casualty and property insurance policies), and (z) to provide for such other matters as the Lenders may reasonably require.

Section 6.06 Books and Records; Inspection Rights. Borrower will, and will cause each Restricted Subsidiary to, keep proper books of record and account in which full, true and correct entries are made of all dealings and transactions in relation to its business and activities. Borrower will, and will cause each Restricted Subsidiary to, permit any representatives designated by the Administrative Agent or any Lender, upon reasonable prior notice, to visit and inspect its properties, to examine and make extracts from its books and records, and to discuss its affairs, finances and condition with its officers and independent accountants, all at such reasonable times and as often as reasonably requested. If no Event of Default exists at the time of any such visit and inspection, the Administrative Agent will give forty-eight (48) hours written notice to such Borrower or Restricted Subsidiary prior to such visit and inspection.

Section 6.07 Compliance with Laws. Borrower will, and will cause each Restricted Subsidiary to comply in all material respects with all Laws, rules, regulations and orders of any Governmental Authority applicable to it or its property. Each Credit Party will maintain in effect and enforce policies and procedures designed to ensure compliance by such Credit Party, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions.

Section 6.08 Use of Proceeds and Letters of Credit. The proceeds of the Loans will be used only to (a) pay the fees, expenses and transaction costs of the Transactions, and (b) finance the working capital needs of the Borrower, including capital expenditures, and for general corporate purposes of the Borrower and the Guarantors, in the ordinary course of business, including the exploration, development and/or acquisition of Oil and Gas Interests, together with ancillary transportation, gathering, compression and processing assets and the marketing and sale of Hydrocarbons produced. No part of the proceeds of any Loan will be used, whether directly or indirectly, for any purpose that entails a violation of any of the Regulations of the Board, including Regulations T, U and X. Letters of Credit will be issued only to support general corporate purposes of the Borrower and the Restricted Subsidiaries. The Borrower will not request any Borrowing or Letter of Credit, and the Borrower shall not use, and shall procure that its Subsidiaries and its and their respective directors, officers, employees and agents shall not use, the proceeds of any Borrowing or Letter of Credit (a) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (b) for the purpose of funding, financing or facilitating any activities, business or transaction of or with any Sanctioned Person, or in any Sanctioned Country, to the extent such activities, business, or transaction would be prohibited by Sanctions if conducted by a corporation incorporated in the United States, or (c) in any manner that would result in the violation of any Sanctions applicable to any party hereto.

Section 6.09 Security. Subject to Section 6.17, on any date that is not during an Investment Grade Period, Borrower will, and will cause each Guarantor to, execute and deliver to the Administrative Agent, for the benefit of the Secured Parties, (a) Mortgages (or amendments to Mortgages) together with such other assignments, conveyances, amendments, agreements and other writings, including, without

limitation, UCC-1 financing statements (each duly authorized and executed, as applicable) as the Administrative Agent shall deem necessary or appropriate to grant, evidence and perfect Liens in Oil and Gas Interests having an Engineered Value equal to or greater than the Minimum Collateral Amount and (b) security agreements in form and substance reasonably acceptable to the Administrative Agent (or amendments to security Agreements) together with such other assignments, conveyances, amendments, agreements and other writings, including, without limitation, UCC-1 financing statements (each duly authorized and executed, as applicable) and control agreements as the Administrative Agent shall deem necessary or appropriate to grant, evidence and perfect Liens in certain personal property of Borrower or such Restricted Subsidiary, as the case may be, subject only to Permitted Liens. Within 60 days after the Effective Date (or such longer time as acceptable to the Administrative Agent in its sole discretion, but not to exceed 90 days), the Borrower agrees to execute and deliver, or cause to be executed and delivered, Mortgages, amendments to Mortgages, or amendments and restatements of the Mortgages, in form and substance reasonably satisfactory to the Administrative Agent, as the Administrative Agent may reasonably require to comply with the requirements of Section 6.09 and related title information required to comply with Section 6.10.

Section 6.10 Title Data. Borrower will, and will cause each Guarantor to, deliver to the Administrative Agent such existing opinions of counsel and other evidence of title as the Administrative Agent shall deem reasonably necessary or appropriate to verify the title of the Credit Parties to not less than eighty percent (80%) of the Minimum Collateral Amount.

Section 6.11 Operation of Oil and Gas Interests.

(a) Borrower will, and will cause each Restricted Subsidiary to, maintain, develop and operate its Oil and Gas Interests in a good and workmanlike manner, and observe and comply in all material respects with all of the terms and provisions, express or implied, of all oil and gas leases relating to such Oil and Gas Interests so long as such Oil and Gas Interests are capable of producing Hydrocarbons and accompanying elements in paying quantities.

(b) Borrower will, and will cause each Restricted Subsidiary to, comply in all material respects with all contracts and agreements applicable to or relating to its Oil and Gas Interests or the production and sale of Hydrocarbons and accompanying elements therefrom.

Section 6.12 Restricted Subsidiaries. In the event any Person is or becomes a Restricted Subsidiary, the Borrower will (a) promptly take all action necessary to comply with Section 6.13, (b) promptly take all such action and execute and deliver, or cause to be executed and delivered, to the Administrative Agent all such opinions, documents, instruments, agreements, and certificates similar to those described in Section 5.01(b) and Section 5.01(c) that the Administrative Agent may reasonably request, and (c) promptly cause any such Restricted Subsidiary to (i) become a party to this Agreement, the Security Agreement and the Pledge Agreement and Guarantee the Obligations by executing and delivering to the Administrative Agent a Counterpart Agreement in the form of Exhibit C, (ii) grant to the Administrative Agent, for the benefit of the Lenders, a Lien on and security interest in all Oil and Gas Interests of such Restricted Subsidiary, if any, required to comply with Section 6.09 and (iii) deliver all title opinions and other information, if any, required to comply with Section 6.10. Upon delivery of any such Counterpart Agreement to the Administrative Agent, notice of which is hereby waived by each Credit Party, such Restricted Subsidiary shall be a Guarantor and shall be as fully a party hereto as if such Restricted Subsidiary were an original signatory hereto. Each Credit Party expressly agrees that its obligations arising hereunder shall not be affected or diminished by the addition or release of any other Credit Party hereunder. This Agreement shall be fully effective as to any Credit Party that is or becomes a party hereto regardless of whether any other Person becomes or fails to become or ceases to be a Credit Party hereunder. With respect to each such Restricted Subsidiary, the Borrower shall promptly send to the Administrative Agent

written notice setting forth with respect to such Person the date on which such Person became a Restricted Subsidiary of such Borrower, and supplement the data required to be set forth in the Schedules to this Agreement as a result of the acquisition or creation of such Restricted Subsidiary; provided that such supplemental data must be reasonably acceptable to the Administrative Agent and Required Lenders.

Section 6.13 Pledged Equity Interests. On the date hereof and at the time hereafter that any Restricted Subsidiary of Borrower is created or acquired or any Unrestricted Subsidiary becomes a Restricted Subsidiary, the Borrower and the Subsidiaries (as applicable) shall execute and deliver to the Administrative Agent for the benefit of the Secured Parties, a pledge agreement (or an amendment or amendment and restatement of the existing Pledge Agreement), in form and substance reasonably acceptable to the Administrative Agent, from the Borrower and/or the Subsidiaries (as applicable) covering all Equity Interests owned by the Borrower or such Restricted Subsidiaries in such Restricted Subsidiaries, together with all certificates (or other evidence acceptable to Administrative Agent) evidencing the issued and outstanding Equity Interests of each such Restricted Subsidiary of every class owned by such Credit Party (as applicable) which, if certificated, shall be duly endorsed or accompanied by stock powers executed in blank (as applicable), as Administrative Agent shall deem necessary or appropriate to grant, evidence and perfect a first priority security interest in the issued and outstanding Equity Interests owned by Borrower or any Restricted Subsidiary in each Restricted Subsidiary; provided that in no event shall Borrower or any Restricted Subsidiary be required to pledge more than sixty-five percent (65%) of the voting Equity Interests of any Subsidiary that is not a Domestic Subsidiary.

Section 6.14 Further Assurances. Borrower agrees to deliver and to cause each of its Subsidiaries to deliver, to further secure the Obligations whenever requested by Administrative Agent in its sole and absolute discretion, deeds of trust, mortgages, chattel mortgages, security agreements, financing statements and other Security Documents in form and substance satisfactory to Administrative Agent for the purpose of granting, confirming, and perfecting first and prior liens or security interests in any real or personal property which is at such time Collateral or which was intended to be Collateral pursuant to any Security Document previously executed and not then released by Administrative Agent.

Section 6.15 Production Proceeds. Notwithstanding that, by the terms of the various Security Documents, the Credit Parties are and will be granting a security interest to Administrative Agent in all as-extracted collateral (referred to as the "Production Proceeds" in the Security Documents) accruing to the Oil and Gas Interest mortgaged thereby, the Credit Parties may continue to receive from the purchasers of production all such Production Proceeds until such time as an Event of Default has occurred and is continuing and the Administrative Agent gives written notice to operators and/or purchasers of production to pay the Administrative Agent. Upon the occurrence of an Event of Default, Administrative Agent may exercise all rights and remedies granted under the Security Documents, including the right to obtain possession of all Production Proceeds then held by the Credit Parties or to receive directly from the purchasers of production all other Production Proceeds. In no case shall any failure, whether purposed or inadvertent, by Administrative Agent or Lenders to collect directly any such Production Proceeds constitute in any way a waiver, remission or release of any of their rights under the Security Documents, nor shall any release of any Production Proceeds by Administrative Agent or Lenders to the Credit Parties constitute a waiver, remission, or release of any other Production Proceeds or of any rights of Administrative Agent or Lenders to collect other Production Proceeds thereafter.

Section 6.16 Leases and Contracts; Performance of Obligations. Each Credit Party will, and will cause each Restricted Subsidiary to, maintain in full force and effect all oil, gas or mineral leases, contracts, servitudes and other agreements forming a part of any Oil and Gas Interests, to the extent the same cover or otherwise relate to such Oil and Gas Interest, and each Credit Party and each Restricted Subsidiary will timely perform all of its obligations thereunder. Each Credit Party and each Restricted Subsidiary will properly and timely pay all rents, royalties and other payments due and payable under any

such leases, contracts, servitudes and other agreements, or under the Permitted Liens, or otherwise attendant to its ownership or operation of any Oil and Gas Interest. Each Credit Party and each Restricted Subsidiary will promptly notify Administrative Agent of any material claim (or any conclusion by such Credit Party or such Restricted Subsidiary) that such Credit Party or such Restricted Subsidiary is obligated to account for any royalties, or overriding royalties or other payments out of production, on a basis (other than delivery in kind) less favorable to such Credit Party or such Restricted Subsidiary than proceeds received by such Credit Party or such Restricted Subsidiary (calculated at the well) from sale of production.

Section 6.17 Investment Grade Period Covenants.

(a) Notwithstanding anything in this Agreement to the contrary, during any Investment Grade Period, (a) Borrower is not required to comply with Section 6.09, Section 6.12, Section 6.13, Section 6.14, and Section 6.15, and (b) Borrower is not required to comply with Section 6.10 so long as Borrower has either (i) an unsecured rating from Moody's of Baa3 or better, or (ii) an unsecured rating from S&P of BBB- or better.

(b) Subject to any applicable limitations set forth in the Security Documents or the Pledge Agreement, the Borrower will, within sixty (60) days of the end of any Investment Grade Period (or such longer period as the Administrative Agent may agree to), execute and cause its Restricted Subsidiaries to execute: (i) the Pledge Agreement, (ii) the Security Agreement and (iii) any Mortgages, such that after giving effect thereto the Borrower will meet the Minimum Collateral Amount.

ARTICLE VII
Negative Covenants

Until the Aggregate Commitment has expired or terminated and the principal of and interest on each Loan and all fees payable hereunder shall have been paid in full and all Letters of Credit have expired or terminated and all LC Disbursements shall have been reimbursed, each Credit Party covenants and agrees with the Lenders that:

Section 7.01 Limitation on Indebtedness. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, create, incur, assume or permit to exist any Indebtedness except:

(a) the Obligations;

(b) unsecured Indebtedness among the Credit Parties arising in the ordinary course of business and, if requested by the Administrative Agent, subordinated to the Obligations on terms and conditions reasonably acceptable to the Administrative Agent;

(c) Indebtedness arising under Hedging Contracts permitted under Section 7.03;

(d) Cash Management Obligations; provided that (i) the aggregate outstanding amount of all Cash Management Obligations does not exceed at any time the lesser of (x) $25,000,000 and (y) the amount of Cash Management Obligations permitted under the Indenture, and (ii) any and all documents, agreements and instruments creating any Cash Management Obligations shall be in form and substance satisfactory to the Administrative Agent;

(e) Guarantees by any Credit Party or any Restricted Subsidiary of the Indebtedness permitted under paragraphs (g) and (h) of this Section 7.01;

(f) Indebtedness of the Credit Parties incurred to finance the acquisition, construction or improvement of any fixed or capital assets, including Capital Lease Obligations and any Indebtedness assumed in connection with the acquisition of any such assets or secured by a Lien on any such assets prior to the acquisition thereof, and extensions, renewals and replacements of any such Indebtedness that do not increase the outstanding principal amount thereof; provided that the aggregate principal amount of Indebtedness permitted by this paragraph (g) shall not exceed $30,000,000 at any time outstanding;

(g) Indebtedness of any Credit Party resulting from the issuance of Senior Notes and any Permitted Refinancing thereof; provided that at the time of and immediately after giving effect to each issuance of such Senior Notes or any Permitted Refinancing thereof, (x) no Default shall have occurred and be continuing and (y) the Borrower is in pro forma compliance with the financial covenants set forth in Section 7.11 and Section 7.12 as of the last day of the most recently ended fiscal quarter for which the financial statements and compliance certificate required under Section 6.01 have been delivered to the Administrative Agent and the Lenders as if such issuance (and any concurrent repayment of Indebtedness) had occurred on such day; and

(h) miscellaneous items of unsecured Indebtedness of the Credit Parties not described in paragraphs (a) through (h), including obligations to pay the financing for the purchase price or deferred premiums with respect to certain Hedging Contracts permitted under Section 7.03(a)(ii), which do not in the aggregate (taking into account all such Indebtedness of the Credit Parties) exceed $30,000,000 at any one time outstanding.

Section 7.02 Limitation on Liens. Except for Permitted Liens, no Credit Party will, nor will it permit any of its Restricted Subsidiaries to, create, assume or permit to exist any Lien upon any of the properties or assets which it now owns or hereafter acquires.

Section 7.03 Hedging Contracts. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, be a party to or in any manner be liable on any Hedging Contract except:

(a) Swaps and collars entered into in the ordinary course of business, and not for speculative purposes, with the purpose and effect of fixing prices or reducing or fixing basis or transportation price differentials on Crude Oil, Natural Gas or Natural Gas Liquids expected to be produced by the Credit Parties (measured by volume unit or BTU equivalent, not sales price); provided that at all times: (i) no such contract shall have a term of more than sixty (60) months; (ii) except for the Liens granted under the Security Documents to secure Lender Hedging Obligations, no such contract requires any Credit Party to put up money, assets, or other security (other than letters of credit) against the event of its nonperformance prior to actual default by such Credit Party in performing its obligations thereunder, (iii) each such contract is with a counterparty or has a guarantor of the obligation of the counterparty which at the time the contract is made is an Approved Counterparty, and (iv) the aggregate production of Crude Oil, Natural Gas and Natural Gas Liquids, calculated collectively and measured by volume unit or BTU equivalent, not sales price, covered by all such contracts (other than basis or transportation price differential swaps for volumes of Natural Gas included under other Hedging Contracts permitted under this clause (a)) to which any Credit Party is a party does not at any time exceed 75% of the Credit Parties' aggregate Projected Oil and Gas Production for the forthcoming five (5) year period calculated collectively and measured by volume unit or BTU equivalent, not sales price.

(b) puts or floors entered into by a Credit Party in the ordinary course of business, and not for speculative purposes, with the purpose and effect of establishing minimum prices on Crude Oil, Natural Gas or Natural Gas Liquids expected to be produced by the Credit Parties (measured by volume unit or BTU equivalent, not sales price); provided that at all times: (i) no such contract shall have a term of more than sixty (60) months, (ii) except for the Liens granted under the Security Documents to secure Lender

Hedging Obligations, no such contract requires any Credit Party to put up money, assets, or other security (other than letters of credit) against the event of its nonperformance prior to actual default by such Credit Party in performing its obligations thereunder, (iii) each such contract is with a counterparty or has a guarantor of the obligation of the counterparty who at the time the contract is made is an Approved Counterparty, (iv) there exists no deferred obligation to pay the related premium or other purchase price for such floor or the only deferred obligation is to pay the financing for such premium or other purchase price and such deferred obligation is permitted under Section 7.01(i), and (v) the aggregate production for Crude Oil, Natural Gas and Natural Gas Liquids, calculated collectively and measured by volume unit or BTU equivalent, not sales price, covered by all such contracts to which any Credit Party is a party does not in the aggregate exceed one hundred percent (100%) of the Credit Parties' aggregate Projected Oil and Gas Production for the forthcoming five (5) year period calculated collectively and measured by volume unit or BTU equivalent, not sales price.

(c) contracts entered into by a Credit Party in the ordinary course of business, and not for speculative purposes, with the purpose and effect of fixing interest rates on a principal amount of Indebtedness of such Credit Party that is accruing interest at a variable rate, provided that (i) the aggregate notional amount of such contracts never exceeds one hundred percent (100%) of the anticipated outstanding principal balance of the Indebtedness to be hedged by such contracts or an average of such principal balances calculated using a generally accepted method of matching interest swap contracts to declining principal balances, (ii) the floating rate index of each such contract generally matches the index used to determine the floating rates of interest on the corresponding Indebtedness to be hedged by such contract and (iii) each such contract is with an Approved Counterparty.

(d) If any Credit Party enters into any Hedge Modification, the Borrower shall provide the Administrative Agent with written notice of such Hedge Modification within three (3) Business Days thereafter, setting forth, in reasonable detail, the terms of such Hedge Modification; provided that no Hedge Modification may be made by any Credit Party if the economic effect on the Borrowing Base (as determined by the Administrative Agent) of all Hedge Modifications entered into since the most recent Scheduled Redetermination exceeds, in the aggregate for all Credit Parties, an amount equal to seven and one-half percent (7.5%) of the Borrowing Base then in effect or ten percent (10%) of the Borrowing Base then in effect when aggregated with any Disposition of Borrowing Base Properties in accordance with Section 7.05(h), unless (x) in the event such economic effect is less than an amount equal to fifteen percent (15%) of the Borrowing Base then in effect, such Credit Party shall have received the prior written consent of the Administrative Agent, or (y) such Credit Party shall have received the prior written consent of the Required Lenders, or (z) (i) at the time of and after giving effect to any such Hedge Modification, no Default exists, (ii) the Borrowing Base is adjusted by an amount equal to the economic effect on the Borrowing Base of all such Hedge Modifications (and Dispositions of Borrowing Base Properties, if applicable) as determined by the Required Lenders (or in the event the economic effect on the Borrowing Base (as determined by the Administrative Agent) of all Hedge Modifications (and Dispositions of Borrowing Base Properties, if applicable) entered into by the Credit Parties since the most recent Scheduled Redetermination is less than an amount equal to fifteen percent (15%) of the Borrowing Base then in effect, as determined by the Administrative Agent, and (iii) the Borrower prepays the Loans or provides cash collateral to the extent required by Section 2.11(c) as a result of such Hedge Modifications.

(e) Notwithstanding anything to the contrary contained in this Section 7.03, the Borrower may enter into Hedging Contracts for Crude Oil, Natural Gas and Natural Gas Liquids with a term longer than 60 months; provided that (i) any Hedging Contract with a term longer than 60 months at the time such Hedging Contract is entered into shall in any event have a term no longer than 72 months, (ii) except for the term of such Hedging Contract exceeding 60 months at the time it is entered into, such Hedging Contract is otherwise permitted under the terms of this Section 7.03 and (iii) the volumes of Crude Oil, Natural Gas and Natural Gas Liquids covered by all such Hedging Contracts for the period beyond 60 months (other

than basis or transportation price differential swaps for volumes of Natural Gas) does not, for any single month in such period, exceed 65% of the Credit Parties' aggregate Projected Oil and Gas Production anticipated to be sold during such month in the ordinary course of business.

Section 7.04 Limitation on Mergers, Issuances of Securities. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, merge or consolidate with or into any other Person, except that any Restricted Subsidiary or Borrower may be merged into or Consolidated with another Restricted Subsidiary or Borrower, so long as a Borrower or Guarantor, as applicable, is the surviving business entity, and at least one Borrower exists. No Restricted Subsidiary of Borrower will issue any additional Equity Interests except to such Borrower or a Restricted Subsidiary of such Borrower and only to the extent not otherwise forbidden under the terms hereof.

Section 7.05 Limitation on Dispositions of Property. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, Dispose of any of the Borrowing Base Properties or the Equity Interests of any Restricted Subsidiary or any material interest therein, or discount, sell, pledge or assign any notes payable to it, accounts receivable or future income, or enter into any Sale and Leaseback Transaction except:

(a) equipment which is worthless or obsolete or which is replaced by equipment of equal suitability and similar value;

(b) inventory (including Crude Oil and Natural Gas sold as produced and seismic data) which is replaced and/or sold in the ordinary course of business on ordinary trade terms;

(c) Equity Interests of any Subsidiary of Borrower transferred to any Credit Party;

(d) acreage-swap agreements; provided that (x) such acreage swap agreement provides for such Credit Party or Restricted Subsidiary, as the case may be, to receive good and defensible title to acreage having a reasonable equivalent value to the value of the acreage exchanged by such Credit Party or Restricted Subsidiary, (y) the Administrative Agent shall have received from such Credit Party or Restricted Subsidiary at least ten (10) days' prior notice of the closing of any such acreage swap agreement and (z) such Credit Party or Restricted Subsidiary and the Administrative Agent shall have made mutually satisfactory arrangements for the release of the Liens granted under the Security Documents and for the grant of a Lien on the proved reserves associated with the properties under the Security Documents upon the closing of such exchange to the extent required to comply with Section 6.09;

(e) assets of any Credit Party to another Credit Party;

(f) Sale and Leaseback Transactions in which the liability for any lease incurred by any Credit Party is a Capital Lease Obligation permitted under Section 7.01(g);

(g) Hedge Modifications to the extent permitted under Section 7.03;

(h) the Disposition of any Borrowing Base Property (whether pursuant to a Disposition of all, but not less than all, of the Equity Interests of any Restricted Subsidiary or otherwise) which is Disposed of for fair consideration to a Person; provided that no Borrowing Base Property may be Disposed of by any Credit Party (whether pursuant to a Disposition of all, but not less than all, of the Equity Interests of any Restricted Subsidiary or otherwise) if the Engineered Value (as determined by the Administrative Agent) of all Borrowing Base Properties Disposed of since the most recent Scheduled Redetermination exceeds, in the aggregate for all Credit Parties, an amount equal to seven and one-half percent (7.5%) of the Borrowing Base then in effect or ten percent (10%) of the Borrowing Base then in effect when aggregated with any Hedge Modification in accordance with Section 7.03(d), unless (x) in the event such Engineered Value is

less than an amount equal to fifteen percent (15%) of the Borrowing Base then in effect, such Credit Party shall have received the prior written consent of the Administrative Agent, or (y) such Credit Party shall have received the prior written consent of the Required Lenders, or (z) (i) at the time of and after giving effect to any such Disposition, no Default exists, (ii) the Borrower provides the Administrative Agent with at least fifteen (15) days prior written notice of such Disposition, setting forth in reasonable detail the Borrowing Base Properties that are subject to such Disposition, and such Disposition is consummated prior to the next Redetermination of the Borrowing Base, (iii) the consideration received from any such Disposition is at least equal to the fair market value of the Borrowing Base Properties subject to such Disposition, as reasonably determined in good faith by the board of directors of such Credit Party and, if requested by the Administrative Agent, the Borrower shall deliver to the Administrative Agent a certificate of a Financial Officer of such Credit Party certifying to that effect, (iv) at least 80% of the consideration received by the Credit Parties in respect of any such Disposition is cash or cash equivalents, (v) the Borrowing Base is adjusted by an amount equal to the Engineered Value of all Borrowing Base Properties Disposed of (and Hedge Modifications, if applicable) since the most recent Scheduled Redetermination as determined by the Required Lenders (or in the event the Engineered Value (as determined by the Administrative Agent) of all Borrowing Base Properties Disposed of (and Hedge Modifications, if applicable) by the Credit Parties since the most recent Scheduled Redetermination is less than an amount equal to fifteen percent (15%) of the Borrowing Base then in effect, as determined by the Administrative Agent), and (vi) the Borrower prepays the Loans or provides cash collateral to the extent required by Section 2.11(b) as a result of such Dispositions.

(i) the Disposition or settlement of notes or accounts receivable from insolvent account debtors;

(j) the Disposition of logistics assets and other master limited partnership qualifying assets by Borrower or any or its Subsidiaries (whether pursuant to a Disposition of all, but not less than all, of the Equity Interests of any Subsidiary or otherwise) to any MLP Party in exchange for common and subordinated Equity Interests in Antero Midstream, cash or a combination of such Equity Interests and cash; provided that (i) at the time of such Disposition, no Default shall have occurred and be continuing or would be caused thereby, (ii) on a pro forma basis, the Aggregate Unused Commitment shall not be less than the greater of (A) $200,000,000 and (B) an amount equal to 10% of the Borrowing Base then in effect, and (iii) the Borrower shall be in compliance on a pro forma basis with the covenant in Section 7.11(b);

(k) Dispositions constituting like-kind exchanges of Borrowing Base Properties to the extent that (i) such property is exchanged for credit against the purchase price of similar replacement property or (ii) the proceeds of such Disposition are applied to the purchase price of such replacement property, in each case under Section 1031 of the Code or otherwise, and (iii) after giving effect to such Disposition, the difference between (x) the Borrowing Base in effect immediately prior to such Disposition minus (y) the PV-9 (calculated at the time of such Disposition) of the Borrowing Base Properties Disposed of since the later of the most recent determination or adjustment of the Borrowing Base exceeds the Loan Limit in effect immediately prior to such Disposition;

(l) Dispositions of Hydrocarbon Interests to which no Proved Reserves are attributable, farm-outs of undeveloped acreage to which no Proved Reserves are attributable and assignments in connection with such farm-outs and other Properties not included in or not given value for purposes of establishing the Borrowing Base and that would not otherwise constitute Oil and Gas Interests applicable to Borrowing Base Properties;

(m) Dispositions of investments in joint ventures (regardless of the form of legal entity) to the extent required by, or made pursuant to, customary buy/sell arrangements between the joint venture parties

set forth in joint venture arrangements and similar binding arrangements to the extent the same would be permitted under Section 7.07;

(n) transfers of property subject to a (i) Casualty Event or in connection with any condemnation proceeding with respect to Collateral upon receipt of the net cash proceeds of such Casualty Event or condemnation proceeding or (ii) in connection with any Casualty Event or any condemnation proceeding, in each case with respect to property that does not constitute Collateral; and

(o) On any date during an Investment Grade Period, any Disposition provided that after pro forma effect to such Disposition no Default or Event of Default would result therefrom (including that the Borrower shall be in compliance with Section 7.12 on a pro forma basis after giving effect to such Disposition, as such covenants are recomputed as at the last day of the most recently ended Test Period as if such Disposition had occurred on the first day of such Test Period).

Section 7.06 Limitation on Dividends and Redemptions. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, declare or make any Restricted Payment, other than Restricted Payments payable to Borrower or to Guarantors that are Subsidiaries of a Borrower; provided that (a) Borrower may repurchase employee stock options issued under stock option plans then being terminated in an aggregate amount not to exceed $4,500,000 during the thirty day period following the one year anniversary of the termination of such stock option plans and (b) the Borrower may make one or more Restricted Payments in respect of the holders of Borrower's Equity Interests so long as on the date of and after giving effect to any such Restricted Payment (i) no Default has occurred and is continuing or would be caused by such Restricted Payment, (ii) the Borrower's Leverage Ratio on a pro forma basis both before and after giving effect to such Restricted Payment shall not exceed 3.75 to 1.00, and (iii) the Aggregate Credit Exposure is less than 85% of the Aggregate Commitment.

Section 7.07 Limitation on Investments and New Businesses. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, (a) make any expenditure or commitment or incur any obligation or enter into or engage in any transaction except in the ordinary course of business, (b) engage directly or indirectly in any business or conduct any operations except in connection with or incidental to its present businesses and operations, or (c) make any acquisitions of or capital contributions to or other investments in any Person, other than (i) Permitted Investments, (ii) investments in the Equity Interests of any Restricted Subsidiary, (iii) investments in any MLP Party consisting of Dispositions permitted under Section 7.05(j) and (iv) cash or cash equivalent investments in any MLP Party; provided that with respect to investments made pursuant to this clause (iv), (A) at the time of each such investment, no Default shall have occurred and be continuing or would be caused thereby, (B) after giving effect to any such investment, the outstanding balance of such investments at any time shall not exceed $150,000,000 and (C) on a pro forma basis, the Aggregate Unused Commitment shall not be less than the greater of (1) $200,000,000 and (2) an amount equal to 10% of the Borrowing Base then in effect.

Section 7.08 Limitation on Credit Extensions. Except for Permitted Investments and intercompany Indebtedness permitted under Section 7.01(b), no Credit Party will, nor will it permit any of its Restricted Subsidiaries to, extend credit, make advances or make loans to any Person.

Section 7.09 Transactions with Affiliates. No Credit Party will, nor will it permit any of its Restricted Subsidiaries to, engage in any material transaction with any of its Affiliates on terms which are less favorable to it than those which would have been obtainable at the time in arm's-length dealing with Persons other than such Affiliates, provided that such restriction shall not apply to transactions among Credit Parties.

Section 7.10 Prohibited Contracts; Negative Pledge. Except as expressly provided for in the Loan Documents and the Senior Notes Documents (or any documents evidencing or relating to any Permitted Refinancing), no Credit Party will, nor will it permit any of its Restricted Subsidiaries to, directly or indirectly, enter into, create, or otherwise allow to exist any contract or other consensual restriction on the ability of any Credit Party or any Restricted Subsidiary to: (a) pay dividends or make other distributions to another Credit Party or any Restricted Subsidiary, (b) redeem Equity Interests held in it by another Restricted Subsidiary, (c) repay loans and other Indebtedness owing by it to another Credit Party or any Restricted Subsidiary, (d) transfer any of its assets to another Credit Party, or (e) grant Liens to Administrative Agent to secure the Obligations. Except as otherwise disclosed on Schedule 4.19, the Credit Parties will not, and will not permit any Restricted Subsidiary to, enter into any "take-or-pay" contract or other contract or arrangement for the purchase of goods or services which obligates it to pay for such goods or service regardless of whether they are delivered or furnished to it (for the avoidance of doubt, firm transportation contracts entered into in the ordinary course of business shall not constitute prohibited contracts under this Section 7.10). The Credit Parties will not, and will not permit any Restricted Subsidiary to, amend or permit any amendment to any contract or lease which releases, qualifies, limits, makes contingent or otherwise detrimentally affects, in any material respect, the rights and benefits of Administrative Agent or any Lender under or acquired pursuant to any Security Documents.

Section 7.11 Financial Covenants not During any Investment Grade Period. At all times other than during any Investment Grade Period, beginning at the end of each fiscal quarter ending on or after December 31, 2017

(a) Borrower will not permit the Consolidated Current Ratio to be less than 1.0 to 1.0; and

(b) Borrower will not permit the Interest Coverage Ratio to be less than 2.50 to 1.0.

Section 7.12 Financial Covenants During any Investment Grade Period. During any Investment Grade Period, beginning at the end of each fiscal quarter ending on or after December 31, 2017,

(a) Borrower will not permit the Consolidated Current Ratio to be less than 1.0 to 1.0;

(b) Borrower will not permit its Leverage Ratio for any Test Period to exceed 4.25 to 1.00; and

(c) Borrower will not permit the ratio of PV-9 reflected in the most recently delivered Reserve Report to its total Indebtedness for any Test Period ending on the last day of any fiscal quarter to be less than 1.50 to 1.00, if, as of such date, the Borrower does not have both (i) an unsecured rating from Moody's of Baa3 or better and (ii) an unsecured rating from S&P of BBB- or better.

Section 7.13 Senior Notes Restrictions. No Credit Party will, nor will any Credit Party permit any Restricted Subsidiary to:

(a) except for the regularly scheduled payments of interest required under the Senior Notes Documents, directly or indirectly, retire, redeem, defease, repurchase or prepay prior to the scheduled due date thereof any part of the principal of, or interest on, the Senior Notes (or any Permitted Refinancing thereof); provided that so long as no Default has occurred and is continuing or would be caused thereby:

(i) the Borrower may retire, redeem, defease, repurchase or prepay the Senior Notes (i) with the proceeds of any Permitted Refinancing permitted pursuant to Section 7.01(h), (ii) with the net cash proceeds of any substantially contemporaneous issuance of

Equity Interests of the Borrower, (iii) pursuant to an asset sale tender offer with the Net Cash Proceeds of any Disposition to the extent required by the terms of the Indenture, but in any event subject to compliance by the Credit Parties with (x) any prepayment of the Obligations required by any consent of the Lenders to such Disposition and (y) any mandatory prepayment of the Obligations required under Section 2.11 after giving effect to any adjustments made by the Required Lenders to the Borrowing Base pursuant to Section 7.05, (iv) by converting or exchanging Senior Notes to Equity Interests (other than Disqualified Stock) of the Borrower, or (v) so long as, on a pro forma basis after giving effect to such retirement, redemption, defeasance, repurchase or prepayment, the Aggregate Credit Exposure is not greater than 80% of the Aggregate Commitment and

(ii) the Senior Notes may be redeemed to the extent of the amount of proceeds of an equity issuance received by the Borrower following the Effective Date (other than disqualified stock), minus the sum, without duplication, of: (i) Permitted Investments made by the Borrower or any Restricted Subsidiary after the Effective Date, (ii) the amount of any restricted payments made by the Borrower after the Effective Date and (iii) the amount of prepayments, repurchases, redemptions and defeasances of Senior Notes made by the Borrower or any restricted subsidiaries; provided that (1) no Event of Default shall have occurred and is continuing, (2) Liquidity is not less than 20% of the then effective maximum amount of (on a pro forma basis after giving effect to such Investment) (a) at any time during an Investment Grade Period, the lesser of (i) the Maximum Facility Amount and (ii) the aggregate commitments at such time and (b) at any time that is not an Investment Grade Period, the least of (i) the Maximum Facility Amount, (ii) the aggregate commitments at such time and (iii) the Borrowing Base at such time, or

(b) enter into or permit any supplement, modification or amendment of, or waive any right or obligation of any Person under, any Senior Notes Document or any document governing any Permitted Refinancing of the Senior Notes if the effect thereof would be to (i) shorten its average life or maturity, (ii) increase the rate or shorten any period for payment of interest thereon, (iii) cause any covenant, default or remedy provisions contained therein to be materially more onerous on any Credit Party or any Restricted Subsidiary, (iv) cause any mandatory prepayment, repurchase or redemption provisions contained therein to be materially more onerous on any Credit Party or any Restricted Subsidiary, (v) alter the subordination provisions, if any, with respect to any of the Senior Notes Documents, or (vi) result in any Subsidiary of any Borrower Guaranteeing the Senior Notes unless such Subsidiary is (or concurrently with any such Guarantee becomes) a Guarantor hereunder.

ARTICLE VIII
Guarantee of Obligations

Section 8.01 Guarantee of Payment. Each Guarantor unconditionally and irrevocably guarantees to the Administrative Agent for the benefit of the Secured Parties, the punctual payment of all Obligations now or which may in the future be owing by any Credit Party (the "Guaranteed Liabilities"). This Guarantee is a guaranty of payment and not of collection only. The Administrative Agent shall not be required to exhaust any right or remedy or take any action against the Borrower or any other Person or any collateral. The Guaranteed Liabilities include interest accruing after the commencement of a proceeding under bankruptcy, insolvency or similar laws of any jurisdiction at the rate or rates provided in the Loan Documents, or the Hedging Contracts between any Credit Party and any Secured Party, as the case may be, regardless of whether such interest is an allowed claim. Each Guarantor agrees that, as between the Guarantor and the Administrative Agent, the Guaranteed Liabilities may be declared to be due and payable for the purposes of this Guarantee notwithstanding any stay, injunction or other prohibition which may

prevent, delay or vitiate any declaration as regards Borrower or any other Guarantor and that in the event of a declaration or attempted declaration, the Guaranteed Liabilities shall immediately become due and payable by each Guarantor for the purposes of this Guarantee.

Section 8.02 Guarantee Absolute. Each Guarantor guarantees that the Guaranteed Liabilities shall be paid strictly in accordance with the terms of this Agreement and the Hedging Contracts. The liability of each Guarantor hereunder is absolute and unconditional irrespective of: (a) any change in the time, manner or place of payment of, or in any other term of, all or any of the Loan Documents or the Guaranteed Liabilities, or any other amendment or waiver of or any consent to departure from any of the terms of any Loan Document or Guaranteed Liability, including any increase or decrease in the rate of interest thereon; (b) any release or amendment or waiver of, or consent to departure from, any other guaranty or support document, or any exchange, release or non-perfection of any collateral, for all or any of the Loan Documents or Guaranteed Liabilities; (c) any present or future law, regulation or order of any jurisdiction (whether of right or in fact) or of any agency thereof purporting to reduce, amend, restructure or otherwise affect any term of any Loan Document or Guaranteed Liability; (d) without being limited by the foregoing, any lack of validity or enforceability of any Loan Document or Guaranteed Liability; and (e) any other setoff, defense or counterclaim whatsoever (in any case, whether based on contract, tort or any other theory) with respect to the Loan Documents or the transactions contemplated thereby which might constitute a legal or equitable defense available to, or discharge of, the Borrower or a Guarantor.

Section 8.03 Guarantee Irrevocable. This Guarantee is a continuing guaranty of the payment of all Guaranteed Liabilities now or hereafter existing under this Agreement and the Hedging Contracts and shall remain in full force and effect until payment in full of all Guaranteed Liabilities and other amounts payable hereunder and until this Agreement and the Hedging Contracts are no longer in effect or, if earlier, when the Guarantor has given the Administrative Agent written notice that this Guarantee has been revoked; provided that any notice under this Section shall not release the revoking Guarantor from any Guaranteed Liability, absolute or contingent, existing prior to the Administrative Agent's actual receipt of the notice at its branches or departments responsible for this Agreement and the Hedging Contracts and reasonable opportunity to act upon such notice.

Section 8.04 Reinstatement. This Guarantee shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Guaranteed Liabilities is rescinded or must otherwise be returned by any Secured Party on the insolvency, bankruptcy or reorganization of Borrower or any other Credit Party, or otherwise, all as though the payment had not been made.

Section 8.05 Subrogation. No Guarantor shall exercise any rights which it may acquire by way of subrogation, by any payment made under this Guarantee or otherwise, until all the Guaranteed Liabilities have been paid in full and this Agreement and the Hedging Contracts are no longer in effect. If any amount is paid to the Guarantor on account of subrogation rights under this Guarantee at any time when all the Guaranteed Liabilities have not been paid in full, the amount shall be held in trust for the benefit of the Secured Parties and shall be promptly paid to the Administrative Agent to be credited and applied to the Guaranteed Liabilities, whether matured or unmatured or absolute or contingent, in accordance with the terms of this Agreement and the Hedging Contracts. If any Guarantor makes payment to any Secured Party of all or any part of the Guaranteed Liabilities and all the Guaranteed Liabilities are paid in full and this Agreement and the Hedging Contracts are no longer in effect, such Secured Party shall, at such Guarantor's request, execute and deliver to such Guarantor appropriate documents, without recourse and without representation or warranty, necessary to evidence the transfer by subrogation to such Guarantor of an interest in the Guaranteed Liabilities resulting from the payment.

Section 8.06 Subordination. Without limiting the rights of the Secured Parties under any other agreement, any liabilities owed by Borrower to any Guarantor in connection with any extension of credit

or financial accommodation by any Guarantor to or for the account of the Borrower, including but not limited to interest accruing at the agreed contract rate after the commencement of a bankruptcy or similar proceeding, are hereby subordinated to the Guaranteed Liabilities, and such liabilities of the Borrower to such Guarantor, if the Administrative Agent so requests, shall be collected, enforced and received by any Guarantor as trustee for the Administrative Agent and shall be paid over to the Administrative Agent on account of the Guaranteed Liabilities but without reducing or affecting in any manner the liability of the Guarantor under the other provisions of this Guarantee.

Section 8.07 Setoff. Each Guarantor agrees that, in addition to (and without limitation of) any right of setoff, banker's lien or counterclaim the Administrative Agent, any Lender or any Lender Counterparty may otherwise have, the Administrative Agent, such Lender or such Lender Counterparty shall be entitled, at its option, to offset balances (general or special, time or demand, provisional or final) held by it for the account of any Guarantor at any office of the Administrative Agent, such Lender or such Lender Counterparty, in Dollars or in any other currency, against any amount payable by such Guarantor under this Guarantee which is not paid when due (regardless of whether such balances are then due to such Guarantor), in which case it shall promptly notify such Guarantor thereof; provided that the failure of the Administrative Agent, such Lender, or such Lender Counterparty to give such notice shall not affect the validity thereof.

Section 8.08 Formalities. Each Guarantor waives presentment, notice of dishonor, protest, notice of acceptance of this Guarantee or incurrence of any Guaranteed Liability and any other formality with respect to any of the Guaranteed Liabilities or this Guarantee.

Section 8.09 Limitations on Guarantee. The provisions of the Guarantee under this Article VIII are severable, and in any action or proceeding involving any state corporate law, or any state, federal or foreign bankruptcy, insolvency, reorganization or other law affecting the rights of creditors generally, if the obligations of any Guarantor under this Guarantee would otherwise be held or determined to be avoidable, invalid or unenforceable on account of the amount of such Guarantor's liability under this Guarantee, then, notwithstanding any other provision of this Guarantee to the contrary, the amount of such liability shall, without any further action by the Guarantors, the Administrative Agent, any Lender or any Lender Counterparty, be automatically limited and reduced to the highest amount that is valid and enforceable as determined in such action or proceeding (such highest amount determined hereunder being the relevant Guarantor's "Maximum Liability"). This Section 8.09 with respect to the Maximum Liability of the Guarantors is intended solely to preserve the rights of the Administrative Agent, Lenders and Lender Counterparties hereunder to the maximum extent not subject to avoidance under applicable law, and no Guarantor nor any other Person shall have any right or claim under this Section 8.09 with respect to the Maximum Liability, except to the extent necessary so that none of the obligations of any Guarantor hereunder shall not be rendered voidable under applicable law.

Section 8.10 Keepwell.

(a) Each Qualified ECP Guarantor hereby jointly and severally absolutely, unconditionally and irrevocably undertakes to provide such funds or other support as may be needed from time to time by each other Credit Party to honor all of its obligations under this Agreement in respect of Swap Obligations (provided, however, that each Qualified ECP Guarantor shall only be liable under this Section 8.10 for the maximum amount of such liability that can be hereby incurred without rendering its obligations under this Section 8.10, or otherwise under this Agreement, voidable under applicable law relating to fraudulent conveyance or fraudulent transfer, and not for any greater amount). The obligations of each Qualified ECP Guarantor under this Section 8.10 shall remain in full force and effect until this Agreement is terminated, all Obligations are paid in full (other than contingent obligations for which no claim has been made) and all of the Lenders' Commitments are terminated. Each Qualified ECP Guarantor intends that this Section

8.10 constitute, and this Section 8.10 shall be deemed to constitute, a "keepwell, support, or other agreement" for the benefit of each other Credit Party for all purposes of Section 1a(18)(A)(v)(II) of the Commodity Exchange Act.

(b) Notwithstanding any other provisions of this Agreement or any other Loan Document, Obligations guaranteed by any Guarantor, or secured by the grant of any Lien by such Guarantor under any Security Document, shall exclude all Excluded Swap Obligations of such Guarantor.

ARTICLE IX
Events of Default

If any of the following events ("Events of Default") shall occur:

(a) the Borrower shall fail to pay any principal of any Loan (including any payments required under Section 2.11) or any reimbursement obligation in respect of any LC Disbursement when and as the same shall become due and payable, whether at the due date thereof or at a date fixed for prepayment thereof or otherwise;

(b) the Borrower shall fail to pay any interest on any Loan or any fee or any other amount (other than an amount referred to in paragraph (a) of this Article) payable under this Agreement, when and as the same shall become due and payable, and such failure shall continue unremedied for a period of three (3) Business Days;

(c) any representation or warranty made or deemed made by or on behalf of Borrower, any Restricted Subsidiary in or in connection with this Agreement or any amendment or modification hereof or waiver hereunder, or in any report, certificate, financial statement or other document furnished pursuant to or in connection with this Agreement or any amendment or modification hereof or waiver hereunder or in any Loan Document furnished pursuant to or in connection with this Agreement or any amendment or modification thereof or waiver hereunder, shall prove to have been incorrect in any material respect (without duplication of any materiality qualifier contained therein) when made or deemed made;

(d) Borrower or any Restricted Subsidiary shall fail to observe or perform any covenant, condition or agreement contained in Section 6.02, Section 6.03 (with respect to Borrower or any Restricted Subsidiary's existence), Section 6.05 (with respect to insurance), Section 6.08, or in Article VII;

(e) Borrower or any Restricted Subsidiary shall fail to observe or perform any covenant, condition or agreement contained in (i) this Agreement (other than those specified in paragraph (a), (b) or (d) of this Article) and such failure shall continue unremedied for a period of thirty (30) days after receipt of written notice thereof from the Administrative Agent to the Borrower (which notice will be given at the request of any Lender) or (ii) any other Loan Document and such failure continues beyond the applicable period of grace (if any) provided in such Loan Document;

(f) Borrower or any Restricted Subsidiary shall fail to make any payment (whether of principal or interest and regardless of amount) in respect of any Material Indebtedness, when and as the same shall become due and payable and such failure shall continue beyond the applicable grace period, if any;

(g) any event or condition occurs that results in any Material Indebtedness becoming due prior to its scheduled maturity or that enables or permits (with or without the giving of notice, the lapse of time or both) the holder or holders of any Material Indebtedness or any trustee or agent on its or their behalf to cause such Indebtedness to become due, or to require the prepayment, repurchase, redemption or defeasance thereof, prior to its scheduled maturity; provided that this paragraph (g) shall not apply to (i) Indebtedness

that becomes due as a result of the voluntary sale or transfer of the property or assets securing such Indebtedness and (ii) Indebtedness that becomes due as a result of a change in law, tax regulation or accounting treatment so long as such Indebtedness is paid when due;

(h) an involuntary proceeding shall be commenced or an involuntary petition shall be filed seeking (i) liquidation, reorganization or other relief in respect of Borrower or any Restricted Subsidiary or its debts, or of a substantial part of its assets, under any Federal, state or foreign bankruptcy, insolvency, receivership or similar law now or hereafter in effect or (ii) the appointment of a receiver, trustee, custodian, sequestrator, conservator or similar official for Borrower or any Restricted Subsidiary or for a substantial part of its assets, and, in any such case, such proceeding or petition shall continue undismissed for thirty (30) days or an order or decree approving or ordering any of the foregoing shall be entered;

(i) Borrower or, any Restricted Subsidiary shall (i) voluntarily commence any proceeding or file any petition seeking liquidation, reorganization or other relief under any Federal, state or foreign bankruptcy, insolvency, receivership or similar law now or hereafter in effect, (ii) consent to the institution of, or fail to contest in a timely and appropriate manner, any proceeding or petition described in paragraph (g) of this Article, (iii) apply for or consent to the appointment of a receiver, trustee, custodian, sequestrator, conservator or similar official for Borrower or any Restricted Subsidiary or for a substantial part of its assets, (iv) file an answer admitting the material allegations of a petition filed against it in any such proceeding, (v) make a general assignment for the benefit of creditors or (vi) take any action for the purpose of effecting any of the foregoing;

(j) Borrower or any Restricted Subsidiary shall become unable, admit in writing its inability or fail generally to pay its debts as they become due;

(k) one or more judgments for the payment of money in an aggregate amount in excess of $125,000,000 (not covered by insurance reasonably expected to provide payment therefor) shall be rendered against Borrower or any Restricted Subsidiary or any combination thereof and the same shall remain undischarged or unsatisfied for a period of thirty (30) consecutive days during which execution shall not be effectively stayed, or any action shall be legally taken by a judgment creditor to attach or levy upon any assets of Borrower or any Restricted Subsidiary to enforce any such judgment;

(l) an ERISA Event shall have occurred that, in the opinion of the Majority Lenders, when taken together with all other ERISA Events that have occurred, could reasonably be expected to result in a liability of Borrower or any Restricted Subsidiary in excess of $125,000,000;

(m) the delivery by any Guarantor to the Administrative Agent of written notice that a Guarantee under Article VIII has been revoked or is otherwise declared invalid or unenforceable;

(n) the Liens granted by any Credit Party under the Security Documents shall become invalid in any material respect or any obligation of any Credit Party under any Loan Document shall become invalid in any material respect and, with respect to both of the foregoing, the same remains unremedied for thirty (30) days after an executive officer of such Credit Party has actual knowledge thereof, or the validity of such Liens or obligation shall be challenged by any Credit Party in writing; or

(o) a Change of Control shall occur;

then, and in every such event (other than an event with respect to Borrower or any Restricted Subsidiary described in paragraph (h) or (i) of this Article), and at any time thereafter during the continuance of such event, the Administrative Agent may, and at the request of the Majority Lenders shall, by notice to the Borrower, take either or both of the following actions, at the same or different times: (i) terminate the

Aggregate Commitment, and thereupon the Aggregate Commitment shall terminate immediately, and (ii) declare the Loans then outstanding to be due and payable in whole (or in part, in which case any principal not so declared to be due and payable may thereafter be declared to be due and payable), and thereupon the principal of the Loans so declared to be due and payable, together with accrued interest thereon and all fees and other obligations of the Borrower accrued hereunder, shall become due and payable immediately, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Borrower; and in case of any event with respect to the Borrower described in paragraph (h) or (i) of this Article, the Aggregate Commitment shall automatically terminate and the principal of the Loans then outstanding, together with accrued interest thereon and all fees and other obligations of the Borrower accrued hereunder, shall automatically become due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Borrower. Without limiting the foregoing, upon the occurrence and during the continuance of an Event of Default, the Administrative Agent, the Issuing Bank and each Lender may protect and enforce its rights under this Agreement and the other Loan Documents by any appropriate proceedings, including proceedings for specific performance of any covenant or agreement contained in this Agreement or any other Loan Document, and the Administrative Agent, the Issuing Bank and each Lender may enforce payment of any Obligations due and payable hereunder or enforce any other legal or equitable right which it may have under this Agreement, any other Loan Document, or under applicable law or in equity.

In addition to any other rights and remedies granted to the Administrative Agent and the Lenders in the Loan Documents, the Administrative Agent on behalf of the Lenders may exercise all rights and remedies of a secured party under the New York Uniform Commercial Code or any other applicable law. Without limiting the generality of the foregoing, the Administrative Agent, without demand of performance or other demand, presentment, protest, advertisement or notice of any kind (except any notice required by law referred to below) to or upon any Credit Party or any other Person (all and each of which demands, defenses, advertisements and notices are hereby waived), may in such circumstances forthwith collect, receive, appropriate and realize upon the Collateral, or any part thereof, or consent to the use by the Credit Parties of any cash collateral arising in respect of the Collateral on such terms as the Administrative Agent deems reasonable, and/or may forthwith sell, lease, assign give an option or options to purchase or otherwise dispose of and deliver, or acquire by credit bid on behalf of the Lenders, the Collateral or any part thereof (or contract to do any of the foregoing), in one or more parcels at public or private sale or sales, at any exchange, broker's board or office of the Administrative Agent or any Lender or elsewhere, upon such terms and conditions as it may deem advisable and at such prices as it may deem best, for cash or on credit or for future delivery, all without assumption of any credit risk. The Administrative Agent or any Lender shall have the right upon any such public sale or sales, and, to the extent permitted by law, upon any such private sale or sales, to purchase the whole or any part of the Collateral so sold, free of any right or equity of redemption in any Grantor, which right or equity is hereby waived and released. Each Grantor further agrees, at the Administrative Agent's request, to assemble the Collateral and make it available to the Administrative Agent at places which the Administrative Agent shall reasonably select, whether at such Grantor's premises or elsewhere. The Administrative Agent shall apply the net proceeds of any action taken by it pursuant to this Article IX, after deducting all reasonable costs and expenses of every kind incurred in connection therewith or incidental to the care or safekeeping of any of the Collateral or in any other way relating to the Collateral or the rights of the Administrative Agent and the Lenders hereunder, including reasonable attorneys' fees and disbursements, to the payment in whole or in part of the obligations of the Loan Parties under the Loan Documents, in such order as the Administrative Agent may elect, and only after such application and after the payment by the Administrative Agent of any other amount required by any provision of law, including Section 9-615(a)(3) of the New York Uniform Commercial Code, need the Administrative Agent account for the surplus, if any, to any Credit Party. To the extent permitted by applicable law, each Credit Party waives all claims, damages and demands it may acquire against the Administrative Agent or any Lender arising out of the exercise by them of any rights hereunder. If any

notice of a proposed sale or other disposition of Collateral shall be required by law, such notice shall be deemed reasonable and proper if given at least ten (10) days before such sale or other disposition.

ARTICLE X
The Administrative Agent

Each of the Lenders and the Issuing Bank hereby irrevocably appoints the Administrative Agent as its agent and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof, together with such actions and powers as are reasonably incidental thereto.

The bank serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent, and such bank and its Affiliates may accept deposits from, lend money to and generally engage in any kind of business with any Credit Party or other Affiliate thereof as if it were not the Administrative Agent hereunder.

The Administrative Agent shall not have any duties or obligations except those expressly set forth herein. Without limiting the generality of the foregoing, (a) the Administrative Agent shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing, (b) the Administrative Agent shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby that the Administrative Agent is required to exercise in writing as directed by the Majority Lenders or Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 11.02), and (c) except as expressly set forth herein, the Administrative Agent shall not have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to any Credit Party that is communicated to or obtained by the bank serving as Administrative Agent or any of its Affiliates in any capacity. The Administrative Agent shall not be liable for any action taken or not taken by it with the consent or at the request of the Majority Lenders or the Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 11.02) or in the absence of its own gross negligence or willful misconduct. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice thereof is given to the Administrative Agent by a Borrower or a Lender, and the Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or in connection herewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document, or any other agreement, instrument or document, or (v) the satisfaction of any condition set forth in Article V or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent. No Person identified as a syndication agent, co-documentation agent or an arranger, in each case, in its respective capacity as such, shall have any responsibilities or duties, or incur any liability, under this Agreement or the other Loan Documents.

The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing believed by it to be genuine and to have been signed or sent by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to be made by the proper Person, and shall not incur any liability for relying thereon. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected

by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

The Administrative Agent may perform any and all its duties and exercise its rights and powers by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all its duties and exercise its rights and powers through their respective Related Parties. The exculpatory provisions of the preceding paragraphs shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

Subject to the appointment and acceptance of a successor Administrative Agent as provided in this paragraph, the Administrative Agent may resign at any time upon notice to the Lenders, the Issuing Bank and the Borrower. Upon any such resignation, the Majority Lenders shall have the right, with the consent of the Borrower (which consent shall not be unreasonably withheld or delayed), to appoint a successor; provided that no consent of the Borrower shall be required if any Default has occurred and is continuing. If no successor shall have been so appointed by the Majority Lenders and shall have accepted such appointment within thirty (30) days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may, on behalf of the Lenders and the Issuing Bank, appoint a successor Administrative Agent which shall be a bank with an office in New York, New York, or an Affiliate of any such bank. Upon the acceptance of its appointment as Administrative Agent hereunder by a successor, such successor shall succeed to and become vested with all the rights, powers, privileges and duties of the retiring Administrative Agent, and the retiring Administrative Agent shall be discharged from its duties and obligations hereunder. The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the Administrative Agent's resignation hereunder, the provisions of this Article and Section 11.03 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while it was acting as Administrative Agent.

Each Lender and the Issuing Bank hereby authorize the Administrative Agent to release any Collateral that is permitted to be sold or released pursuant to the terms of the Loan Documents. Each Lender and the Issuing Bank hereby authorize the Administrative Agent to execute and deliver to the Borrower, at the Borrower's sole cost and expense, any and all releases of Liens, termination statements, assignments or other documents reasonably requested by the Borrower in connection with any sale or other disposition of Collateral to the extent such sale or other disposition is permitted by the terms of Section 7.05 or is otherwise authorized by the terms of the Loan Documents. Each Lender and the Issuing Bank hereby authorize the Administrative Agent to subordinate Liens on any property or assets granted to or held by the Administrative Agent under any Loan Document to the holder of any Lien on such property or assets that constitutes a Permitted Lien of the type described in clause (h) of the definition thereof.

Each Lender acknowledges and agrees that the extensions of credit made hereunder are commercial loans and letters of credit and not investments in a business enterprise or securities. Each Lender further represents that it is engaged in making, acquiring or holding commercial loans in the ordinary course of its business and has, independently and without reliance upon the Administrative Agent, any arranger of this credit facility or any amendment thereto or any other Lender and their respective Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement as a Lender, and to make, acquire or hold Loans hereunder. Each Lender shall, independently and without reliance upon the Administrative Agent, any arranger of this credit facility or any amendment thereto or any other Lender and their respective Related Parties and based on such documents and information (which may contain material, non-public information within the meaning of the

United States securities laws concerning the Borrower and its Affiliates) as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder and in deciding whether or to the extent to which it will continue as a Lender or assign or otherwise transfer its rights, interests and obligations hereunder.

The Secured Parties hereby irrevocably authorize the Administrative Agent, at the direction of the Required Lenders, to credit bid all or any portion of the Obligations (including by accepting some or all of the Collateral in satisfaction of some or all of the Obligations pursuant to a deed in lieu of foreclosure or otherwise) and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral (a) at any sale thereof conducted under the provisions of the Bankruptcy Code, including under Sections 363, 1123 or 1129 of the Bankruptcy Code, or any similar laws in any other jurisdictions, or (b) at any other sale, foreclosure or acceptance of collateral in lieu of debt conducted by (or with the consent or at the direction of) the Administrative Agent (whether by judicial action or otherwise) in accordance with any applicable law. In connection with any such credit bid and purchase, the Obligations owed to the Secured Parties shall be entitled to be, and shall be, credit bid by the Administrative Agent at the direction of the Required Lenders on a ratable basis (with Obligations with respect to contingent or unliquidated claims receiving contingent interests in the acquired assets on a ratable basis that shall vest upon the liquidation of such claims in an amount proportional to the liquidated portion of the contingent claim amount used in allocating the contingent interests) for the asset or assets so purchased (or for the equity interests or debt instruments of the acquisition vehicle or vehicles that are issued in connection with such purchase). In connection with any such bid (i) the Administrative Agent shall be authorized to form one or more acquisition vehicles and to assign any successful credit bid to such acquisition vehicle or vehicles (ii) each of the Secured Parties' ratable interests in the Obligations which were credit bid shall be deemed without any further action under this Agreement to be assigned to such vehicle or vehicles for the purpose of closing such sale, (iii) the Administrative shall be authorized to adopt documents providing for the governance of the acquisition vehicle or vehicles (provided that any actions by the Administrative Agent with respect to such acquisition vehicle or vehicles, including any disposition of the assets or equity interests thereof, shall be governed, directly or indirectly, by, and the governing documents shall provide for, control by the vote of the Required Lenders or their permitted assignees under the terms of this Agreement or the governing documents of the applicable acquisition vehicle or vehicles, as the case may be, irrespective of the termination of this Agreement and without giving effect to the limitations on actions by the Required Lenders contained in Section 9.02 of this Agreement), (iv) the Administrative Agent on behalf of such acquisition vehicle or vehicles shall be authorized to issue to each of the Secured Parties, ratably on account of the relevant Obligations which were credit bid, interests, whether as equity, partnership, limited partnership interests or membership interests, in any such acquisition vehicle and/or debt instruments issued by such acquisition vehicle, all without the need for any Secured Party or acquisition vehicle to take any further action, and (v) to the extent that Obligations that are assigned to an acquisition vehicle are not used to acquire Collateral for any reason (as a result of another bid being higher or better, because the amount of Obligations assigned to the acquisition vehicle exceeds the amount of Obligations credit bid by the acquisition vehicle or otherwise), such Obligations shall automatically be reassigned to the Secured Parties pro rata and the equity interests and/or debt instruments issued by any acquisition vehicle on account of such Obligations shall automatically be cancelled, without the need for any Secured Party or any acquisition vehicle to take any further action. Notwithstanding that the ratable portion of the Obligations of each Secured Party are deemed assigned to the acquisition vehicle or vehicles as set forth in clause (ii) above, each Secured Party shall execute such documents and provide such information regarding the Secured Party (and/or any designee of the Secured Party which will receive interests in or debt instruments issued by such acquisition vehicle) as the Administrative Agent may reasonably request in connection with the formation of any acquisition vehicle, the formulation or submission of any credit bid or the consummation of the transactions contemplated by such credit bid.

ARTICLE XI
Miscellaneous

Section 11.01 Notices.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone (and subject to paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopy, as follows:

(i) if to the Borrower or any other Credit Party, to Antero Resources Corporation, 1615 Wynkoop St., Denver, Colorado 80202, Attention: Glen Warren, President and Chief Financial Officer, Telecopy No. (303) 357-7315;

(ii) if to the Administrative Agent or Issuing Bank, to JPMorgan Chase Bank, N.A., Mail Code IL1-0010, 10 South Dearborn, Chicago, Illinois, 60603-2003, Telecopy No.: (312) 385-1544, Attention: [Lillian Arroyo], with a copy to JPMorgan Chase Bank, N.A., Mail Code TX2-S038, 1125 17th Street, Floor 2, Denver, Colorado 80202, Telecopy No. (832) 487-1765, Attention: Ryan Fuessel;

(iii) if to a syndication agent or co-documentation agent, to it at its address (or telecopy number) set forth in its Administrative Questionnaire; and

(iv) if to any other Lender, to it at its address (or telecopy number) set forth in its Administrative Questionnaire.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by facsimile shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through Electronic Systems, to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Notices and other communications to the Lenders and any Issuing Bank hereunder may be delivered or furnished by using Electronic Systems pursuant to procedures approved by the Administrative Agent; provided that the foregoing shall not apply to notices pursuant to Article II unless otherwise agreed by the Administrative Agent and the applicable Lender. The Administrative Agent or the Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient, at its e-mail address as described in the foregoing clause (i), of notification that such notice or communication is available and identifying the website address therefor; provided that, for both clauses (i) and (ii) above, if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(c) Any party hereto may change its address or telecopy number for notices and other communications hereunder by notice to the other parties hereto. All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of receipt.

(d) Electronic Systems.

(i) Borrower agrees that the Administrative Agent may, but shall not be obligated to, make Communications (as defined below) available to the Issuing Banks and the other Lenders by posting the Communications on Debt Domain, Intralinks, Syndtrak, ClearPar or a substantially similar Electronic System.

(ii) Any Electronic System used by the Administrative Agent is provided "as is" and "as available." The Agent Parties do not warrant the adequacy of such Electronic Systems and expressly disclaim liability for errors or omissions in the Communications. No warranty of any kind, express, implied or statutory, including any warranty of merchantability, fitness for a particular purpose, non-infringement of third-party rights or freedom from viruses or other code defects, is made by any Agent Party in connection with the Communications or any Electronic System. In no event shall the Agent Parties have any liability to the Borrower or the other Credit Parties, any Lender, the Issuing Bank or any other Person or entity for damages of any kind, including direct or indirect, special, incidental or consequential damages, losses or expenses (whether in tort, contract or otherwise) arising out of the Borrower's, any Credit Party's, or the Administrative Agent's transmission of communications through an Electronic System. "Communications" means, collectively, any notice, demand, communication, information, document or other material provided by or on behalf of any Credit Party pursuant to any Loan Document or the transactions contemplated therein which is distributed by the Administrative Agent, any Lender or any Issuing Bank by means of electronic communications pursuant to this Section, including through an Electronic System.

Section 11.02 Waivers; Amendments.

(a) No failure or delay by the Administrative Agent, the Issuing Bank or any Lender in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the Administrative Agent, the Issuing Bank and the Lenders hereunder are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. Without limiting the generality of the foregoing, the making of a Loan or issuance of a Letter of Credit shall not be construed as a waiver of any Default, regardless of whether the Administrative Agent, any Lender or the Issuing Bank may have had notice or knowledge of such Default at the time.

(b) Subject to paragraph (c) below, neither this Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by the Credit Parties and the Majority Lenders or by the Credit Parties and the Administrative Agent with the consent of the Majority Lenders; provided that no such agreement shall (1) amend or waive any of the conditions specified in Article V without the written consent of each Lender (provided that the Administrative Agent may in its discretion withdraw any request it has made under Section 5.01(n)), (2) increase the Borrowing Base without the written consent of each Lender, (3) increase the Applicable

Percentage of any Lender or increase the Commitment of any Lender without the written consent of such Lender, (4) increase the Maximum Facility Amount without the written consent of each Lender, (5) reduce the principal amount of any Loan or LC Disbursement or reduce the rate of interest thereon, or reduce any fees payable hereunder, without the written consent of each Lender affected thereby, (6) postpone the scheduled date of payment of the principal amount of any Loan or LC Disbursement, or any interest thereon, or any fees payable hereunder, or reduce the amount of, waive or excuse any such payment, or postpone the scheduled date of expiration of the Aggregate Commitment, without the written consent of each Lender affected thereby (it being understood that any waiver of a mandatory prepayment of the Loans or a mandatory reduction of the Commitments shall not constitute a postponement or waiver of a scheduled payment or date of expiration), (7) change Section 2.18(b) or Section 2.18(c) in a manner that would alter the pro rata sharing of payments required thereby, without the written consent of each Lender, (8) except in connection with any Dispositions permitted in Section 7.05, release any Credit Party from its obligations under the Loan Documents or release any of the Collateral without the written consent of each Lender, (9) change any of the provisions of this Section or the definition of "Majority Lenders", "Super-Majority Lenders" or "Required Lenders" or any other provision hereof specifying the number or percentage of Lenders required to waive, amend or modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender, or (10) amend this Section 11.02 without the consent of each Lender; provided further that no such agreement shall (x) amend, modify or otherwise affect the rights or duties of the Administrative Agent or the Issuing Bank hereunder without the prior written consent of the Administrative Agent or the Issuing Bank, as the case may be or (y) change any of the provisions of Section 2.20 without the prior written consent of the Administrative Agent and the Issuing Bank.

(c) if the Administrative Agent and the Borrower acting together identify any ambiguity, omission, mistake, typographical error or other defect in any provision of this Agreement or any other Loan Document, then the Administrative Agent and the Borrower shall be permitted to amend, modify or supplement such provision to cure such ambiguity, omission, mistake, typographical error or other defect, and such amendment shall become effective without any further action or consent of any other party to this Agreement.

Section 11.03 Expenses; Indemnity; Damage Waiver.

(a) The Borrower shall pay (i) all reasonable out-of-pocket expenses incurred by the Administrative Agent and its Affiliates, including the reasonable fees, charges and disbursements of counsel for the Administrative Agent, in connection with the syndication of the credit facilities provided for herein, the preparation and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (ii) all reasonable out-of-pocket expenses incurred by the Issuing Bank in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iii) all reasonable out-of-pocket expenses incurred by the Administrative Agent, the Issuing Bank or any Lender, including the fees, charges and disbursements of any counsel for the Administrative Agent, the Issuing Bank or any Lender, in connection with the enforcement or protection of its rights in connection with the Loan Documents, including its rights under this Section, or in connection with the Loans made or Letters of Credit issued hereunder, including all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) **THE CREDIT PARTIES SHALL INDEMNIFY THE ADMINISTRATIVE AGENT, THE ISSUING BANK AND EACH LENDER, AND EACH RELATED PARTY OF ANY OF THE FOREGOING PERSONS (EACH SUCH PERSON BEING CALLED AN "INDEMNITEE") AGAINST, AND HOLD EACH INDEMNITEE HARMLESS FROM, ANY AND ALL LOSSES,**

CLAIMS, DAMAGES, PENALTIES, LIABILITIES AND RELATED EXPENSES, INCLUDING THE FEES, CHARGES AND DISBURSEMENTS OF ANY COUNSEL FOR ANY INDEMNITEE, INCURRED BY OR ASSERTED AGAINST ANY INDEMNITEE ARISING OUT OF, IN CONNECTION WITH, OR AS A RESULT OF (I) THE EXECUTION OR DELIVERY OF THIS AGREEMENT OR ANY AGREEMENT OR INSTRUMENT CONTEMPLATED HEREBY, THE PERFORMANCE BY THE PARTIES HERETO OF THEIR RESPECTIVE OBLIGATIONS HEREUNDER OR THE CONSUMMATION OF THE TRANSACTIONS OR ANY OTHER TRANSACTIONS CONTEMPLATED HEREBY, (II) ANY LOAN OR LETTER OF CREDIT OR THE USE OF THE PROCEEDS THEREFROM (INCLUDING ANY REFUSAL BY THE ISSUING BANK TO HONOR A DEMAND FOR PAYMENT UNDER A LETTER OF CREDIT IF THE DOCUMENTS PRESENTED IN CONNECTION WITH SUCH DEMAND DO NOT STRICTLY COMPLY WITH THE TERMS OF SUCH LETTER OF CREDIT), (III) ANY ACTUAL OR ALLEGED PRESENCE OR RELEASE OF HAZARDOUS MATERIALS ON OR FROM ANY PROPERTY OWNED OR OPERATED BY THE BORROWER OR ANY SUBSIDIARY, OR ANY ENVIRONMENTAL LIABILITY RELATED IN ANY WAY TO THE BORROWER OR ANY SUBSIDIARY, OR (IV) ANY ACTUAL OR PROSPECTIVE CLAIM, LITIGATION, INVESTIGATION OR PROCEEDING RELATING TO ANY OF THE FOREGOING, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY AND REGARDLESS OF WHETHER ANY INDEMNITEE IS A PARTY THERETO. THE FOREGOING INDEMNIFICATION SHALL APPLY WHETHER OR NOT SUCH LOSSES, CLAIMS, DAMAGES, LIABILITIES OR RELATED EXPENSES ARE IN ANY WAY OR TO ANY EXTENT OWED, IN WHOLE OR IN PART, UNDER ANY CLAIM OR THEORY OF STRICT LIABILITY OR CAUSED, IN WHOLE OR IN PART BY ANY NEGLIGENT ACT OR OMISSION OF ANY KIND BY ANY INDEMNITEE; PROVIDED THAT SUCH INDEMNITY SHALL NOT, AS TO ANY INDEMNITEE, BE AVAILABLE TO THE EXTENT THAT SUCH LOSSES, CLAIMS, DAMAGES, LIABILITIES OR RELATED EXPENSES ARE DETERMINED BY A COURT OF COMPETENT JURISDICTION BY FINAL AND NONAPPEALABLE JUDGMENT TO HAVE RESULTED FROM THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF SUCH INDEMNITEE. FOR THE AVOIDANCE OF DOUBT, WITH RESPECT TO THE FOREGOING PROVISO "ANY INDEMNITEE" MEANS ONLY THE INDEMNITEE OR INDEMNITEES, AS THE CASE MAY BE, THAT ARE DETERMINED BY SUCH COURT TO HAVE BEEN GROSSLY NEGLIGENT OR TO HAVE ENGAGED IN WILLFUL MISCONDUCT AND NOT ANY OTHER INDEMNITEE.

(c) To the extent that any Credit Party fails to pay any amount required to be paid by it to the Administrative Agent or the Issuing Bank under paragraph (a) or (b) of this Section, each Lender severally agrees to pay to the Administrative Agent or the Issuing Bank, as the case may be, such Lender's Applicable Percentage of such unpaid amount with respect to amounts to be paid to the Issuing Bank and such Lender's Applicable Percentage of such unpaid amount with respect to amounts to be paid to the Administrative Agent (in each case, determined as of the time that the applicable unreimbursed expense or indemnity payment is sought); provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent or the Issuing Bank in its capacity as such.

(d) TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE CREDIT PARTIES SHALL NOT ASSERT, AND HEREBY WAIVE, ANY CLAIM AGAINST ANY INDEMNITEE, ON ANY THEORY OF LIABILITY, FOR SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES (AS OPPOSED TO DIRECT OR ACTUAL DAMAGES) ARISING OUT OF, IN CONNECTION WITH, OR AS A RESULT OF, THIS AGREEMENT OR ANY AGREEMENT OR INSTRUMENT CONTEMPLATED HEREBY, THE TRANSACTIONS, ANY LOAN OR LETTER OF CREDIT OR THE USE OF THE PROCEEDS THEREOF.

(e) All amounts due under this Section shall be payable not later than ten (10) days after written demand therefor.

Section 11.04 Successors and Assigns.

(a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby (including any Affiliate of the Issuing Bank that issues any Letter of Credit), except that (i) no Credit Party may assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of each Lender (and any attempted assignment or transfer by such Credit Party without such consent shall be null and void) and (ii) no Lender may assign or otherwise transfer its rights or obligations hereunder except in accordance with this Section. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby (including any Affiliate of the Issuing Bank that issues any Letter of Credit), Participants (to the extent provided in paragraph (c) of this Section) and, to the extent expressly contemplated hereby, the Related Parties of each of the Administrative Agent, the Issuing Bank and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) (i) Subject to the conditions set forth in paragraph (ii) below, any Lender may assign to one or more assignees (other than an Ineligible Institution) all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment and the Loans at the time owing to it) with the prior written consent (such consent not to be unreasonably withheld) of:

(A) the Borrower; provided that no consent of the Borrower shall be required for an assignment to a Lender, an Affiliate of a Lender, a Federal Reserve Bank or any other central bank, an Approved Fund or, if any Event of Default has occurred and is continuing, any other assignee;

(B) the Administrative Agent; and

(C) the Issuing Bank.

(ii) Assignments shall be subject to the following additional conditions:

(A) except in the case of an assignment to a Lender, an Affiliate of a Lender, an Approved Fund or an assignment of the entire remaining amount of the assigning Lender's Commitment or Loans, the amount of the Commitment or Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent) shall not be less than $5,000,000 unless each of the Borrower and the Administrative Agent otherwise consent; provided that no such consent of the Borrower shall be required if any Event of Default has occurred and is continuing;

(B) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations in respect of such Lender's Commitment and such Lender's Loans under this Agreement;

(C) the parties to each assignment shall execute and deliver to the Administrative Agent (x) an Assignment and Assumption or (y) to the extent applicable, an agreement incorporating an Assignment and Assumption by reference pursuant to a Platform as to which the Administrative Agent and the parties to the Assignment and

Assumption are participants), together with a processing and recordation fee of $3,500; and

(D) the assignee, if it shall not be a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire in which the assignee designates one or more Credit Contacts to whom all syndicate-level information (which may contain material non-public information about the Borrower, the Credit Parties and their related parties or their respective securities) will be made available and who may receive such information in accordance with the assignee's compliance procedures and applicable laws, including Federal and state securities laws.

For the purposes of this Section 11.04(b), the terms "Approved Fund" and "Ineligible Institution" have the following meanings:

"Approved Fund" means any Person (other than a natural person) that is engaged in making, purchasing, holding or investing in bank loans and similar extensions of credit in the ordinary course of its business and that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

"Ineligible Institution" means (a) a natural person, (b) a Defaulting Lender or its Lender Parent, (c) a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of, a natural person or relative(s) thereof or (d) the Borrower or any of its Affiliates; provided that, such holding company, investment vehicle or trust shall not constitute an Ineligible Institution if it (x) has not been established for the primary purpose of acquiring any Loans or Commitments, (y) is managed by a professional advisor, who is not such natural person or a relative thereof, having significant experience in the business of making or purchasing commercial loans, and (z) has assets greater than $25,000,000 and a significant part of its activities consist of making or purchasing commercial loans and similar extensions of credit in the ordinary course of its business.

(iii) Subject to acceptance and recording thereof pursuant to paragraph (b)(iv) of this Section, from and after the effective date specified in each Assignment and Assumption the assignee thereunder shall be a party hereto and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 2.15, 2.16, 2.17 and 9.03). Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this Section 9.04 shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (c) of this Section.

(iv) The Administrative Agent, acting for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Commitment of, and principal amount (and stated interest) of the Loans and LC Disbursements owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, and the Borrower, the Administrative Agent, the Issuing Bank and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to

the contrary. The Register shall be available for inspection by the Borrower, the Issuing Bank and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

(v) Upon its receipt of (x) a duly completed Assignment and Assumption executed by an assigning Lender and an assignee or (y) to the extent applicable, an agreement incorporating an Assignment and Assumption by reference pursuant to a Platform as to which the Administrative Agent and the parties to the Assignment and Assumption are participants), the assignee's completed Administrative Questionnaire (unless the assignee shall already be a Lender hereunder), the processing and recordation fee referred to in paragraph (b) of this Section and any written consent to such assignment required by paragraph (b) of this Section, the Administrative Agent shall accept such Assignment and Assumption and record the information contained therein in the Register; provided that if either the assigning Lender or the assignee shall have failed to make any payment required to be made by it pursuant to Section 2.05(c), 2.06(d) or (e), 2.07(b), 2.18(d) or 9.03(c), the Administrative Agent shall have no obligation to accept such Assignment and Assumption and record the information therein in the Register unless and until such payment shall have been made in full, together with all accrued interest thereon. No assignment shall be effective for purposes of this Agreement unless it has been recorded in the Register as provided in this paragraph.

(c) Any Lender may, without the consent of the Borrower, the Administrative Agent, or an Issuing Bank, sell participations to one or more banks or other entities (a "Participant"), other than an Ineligible Institution, in all or a portion of such Lender's rights and obligations under this Agreement (including all or a portion of its Commitment and the Loans owing to it); provided that (A) such Lender's obligations under this Agreement shall remain unchanged; (B) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations; and (C) the Borrower, the Administrative Agent, the Issuing Bank and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver described in the first proviso to Section 11.02(b) that affects such Participant. The Borrower agrees that each Participant shall be entitled to the benefits of Section 2.15, Section 2.16, and Section 2.17 (subject to the requirements and limitations therein, including the requirements under Section 2.17(f) and (g) (it being understood that the documentation required under Section 2.17(f) shall be delivered to the participating Lender and the information and documentation required under Section 2.17(g) will be delivered to the Borrower and the Administrative Agent)) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to paragraph (b) of this Section; provided that such Participant (A) agrees to be subject to the provisions of Section 2.19 as if it were an assignee under paragraph (b) of this Section; and (B) shall not be entitled to receive any greater payment under Section 2.15 or Section 2.17, with respect to any participation, than its participating Lender would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. Each Lender that sells a participation agrees, at the Borrower's request and expense, to use reasonable efforts to cooperate with the Borrower to effectuate the provisions of Section 2.19(b) with respect to any Participant. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 11.08 as though it were a Lender; provided that such Participant agrees to be subject to Section 2.18(c) as though it were a Lender. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in

any Commitments, Loans, Letters of Credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such Commitment, Loan, Letter of Credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

(d) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank, and this Section shall not apply to any such pledge or assignment of a security interest; provided that no such pledge or assignment of a security interest shall release a Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

Section 11.05 Survival. All covenants, agreements, representations and warranties made by the Credit Parties herein and in the certificates or other instruments delivered in connection with or pursuant to this Agreement shall be considered to have been relied upon by the other parties hereto and shall survive the execution and delivery of this Agreement and the making of any Loans and issuance of any Letters of Credit, regardless of any investigation made by any such other party or on its behalf and notwithstanding that the Administrative Agent, the Issuing Bank or any Lender may have had notice or knowledge of any Default or incorrect representation or warranty at the time any credit is extended hereunder, and shall continue in full force and effect as long as the principal of or any accrued interest on any Loan or any fee or any other amount payable under this Agreement is outstanding and unpaid or any Letter of Credit is outstanding and so long as the Aggregate Commitment has not expired or terminated. The provisions of Section 2.15, Section 2.16, Section 2.17, Section 11.03, Section 11.12 and Article X shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loans, the expiration or termination of the Letters of Credit and the Aggregate Commitment or the termination of this Agreement or any provision hereof.

Section 11.06 Counterparts; Integration; Effectiveness, Electronic Execution.

(a) This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and any separate letter agreements with respect to fees payable to the Administrative Agent constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. **THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS REPRESENT THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.** Except as provided in Section 5.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof which, when taken together, bear the signatures of each of the other parties hereto, and thereafter shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. Delivery of an executed counterpart of a signature page of this Agreement by telecopy or other electronic means shall be effective as delivery of a manually executed counterpart of this Agreement.

(b) Delivery of an executed counterpart of a signature page of this Agreement by telecopy, emailed pdf. or any other electronic means that reproduces an image of the actual executed signature page

shall be effective as delivery of a manually executed counterpart of this Agreement. The words "execution," "signed," "signature," "delivery," and words of like import in or relating to any document to be signed in connection with this Agreement and the transactions contemplated hereby shall be deemed to include Electronic Signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that nothing herein shall require the Administrative Agent to accept electronic signatures in any form or format without its prior written consent.

Section 11.07 Severability. Any provision of this Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

Section 11.08 Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender and each of its Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by law, to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other obligations at any time owing by such Lender or Affiliate to or for the credit or the account of the Borrower against any of and all the obligations of any Credit Party now or hereafter existing under this Agreement held by such Lender, irrespective of whether or not such Lender shall have made any demand under this Agreement and although such obligations may be unmatured. The rights of each Lender under this Section and Section 8.07 are in addition to other rights and remedies (including other rights of setoff) which such Lender may have.

Section 11.09 GOVERNING LAW; JURISDICTION; CONSENT TO SERVICE OF PROCESS.

(a) THIS AGREEMENT SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPLES THEREOF.

(b) EACH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE NONEXCLUSIVE JURISDICTION OF ANY UNITED STATES FEDERAL OR NEW YORK STATE COURT SITTING IN THE BOROUGH OF MANHATTAN, CITY OF NEW YORK, NEW YORK IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, THE ISSUING BANK OR ANY LENDER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT AGAINST ANY CREDIT PARTY OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) EACH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT IT MAY LEGALLY AND EFFECTIVELY DO SO, ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(d) EACH PARTY TO THIS AGREEMENT IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 11.01. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY TO THIS AGREEMENT TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY LAW.

Section 11.10 WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

Section 11.11 Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Agreement and shall not affect the construction of, or be taken into consideration in interpreting, this Agreement.

Section 11.12 Confidentiality. Each of the Administrative Agent, the Issuing Bank and the Lenders agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its and its Affiliates' directors, officers, employees and agents, including accountants, legal counsel and other advisors (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by any regulatory authority having jurisdiction over any Lender or any self-regulatory authority or agency possessing investigative powers and the ability to sanction members for non-compliance, (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process, (d) to any other party to this Agreement, (e) in connection with the exercise of any remedies hereunder or any suit, action or proceeding relating to this Agreement or the enforcement of rights hereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction or other transaction (under which payments are to be made) relating to the Credit Parties and their obligations, (g) with the consent of the Borrower or (h) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section or (ii) becomes available to the Administrative Agent, the Issuing Bank or any Lender on a nonconfidential basis from a source other than a Credit Party. For the purposes of this Section, "Information" means all information received from any Credit Party relating to any Credit Party or its business, other than any such information that is available to the Administrative Agent, the Issuing Bank or any Lender on a nonconfidential basis prior to disclosure by any Credit Party and other information pertaining to this

Agreement routinely provided by arrangers to data service providers, including league table providers, that serve the lending industry; provided that, in the case of information received from any Credit Party after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Section 11.13 Material Non-Public Information.

(a) **EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN SECTION 11.12 FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING THE BORROWER AND ITS RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS.**

(b) **ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWER OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT THE BORROWER, THE CREDIT PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWER AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW.**

Section 11.14 Release of Collateral and Guarantee Obligations.

(a) The Lenders hereby irrevocably agree that the Liens granted to the Administrative Agent by the Credit Parties on any Collateral shall be automatically released (i) in full, as set forth in clauses (b) or (c) below, (ii) upon the Disposition of such Collateral (including as part of or in connection with any other Disposition permitted hereunder) to any Person other than another Credit Party, to the extent such Disposition is made in compliance with the terms of this Agreement (and the Administrative Agent may rely conclusively on a certificate to that effect provided to it by any Credit Party upon its reasonable request without further inquiry), (iii) to the extent such Collateral is comprised of property leased to a Credit Party, upon termination or expiration of such lease, (iv) if the release of such Lien is approved, authorized or ratified in writing by the Majority Lenders (or such other percentage of the Lenders whose consent may be required in accordance with Section 11.02), (v) to the extent the property constituting such Collateral is owned by any Guarantor, upon the release of such Guarantor from its obligations under any Guarantee and (vi) as required by the Administrative Agent to effect any Disposition of Collateral in connection with any exercise of remedies of the Administrative Agent pursuant to the Security Documents. Any such release shall not in any manner discharge, affect, or impair the Obligations or any Liens (other than those being released) upon (or obligations (other than those being released) of the Credit Parties in respect of) all interests retained by the Credit Parties, including the proceeds of any Disposition, all of which shall continue to constitute part of the Collateral except to the extent otherwise released in accordance with the provisions of the Loan Documents. Additionally, the Lenders hereby irrevocably agree that the Guarantors shall be released from the Guarantees upon consummation of any transaction permitted hereunder resulting in such Subsidiary ceasing to constitute a Restricted Subsidiary. The Lenders hereby authorize the Administrative

Agent to execute and deliver any instruments, documents, and agreements necessary or desirable to evidence and confirm

(b) Notwithstanding anything to the contrary contained herein or any other Loan Document, when all Obligations (other than any (i) Lender Hedging Obligations, (ii) Cash Management Obligations, and (iii) any contingent or indemnification obligations not then due) have been paid in full, all Commitments have terminated or expired and no Letter of Credit shall be outstanding that is not Cash Collateralized or back-stopped, upon request of the Borrower, the Administrative Agent shall (without notice to, or vote or consent of, any Secured Party) take such actions as shall be required to release its security interest in all Collateral, and to release all obligations under any Loan Document, whether or not on the date of such release there may be any (i) Lender Hedging Obligations, (ii) Cash Management Obligations, and (iii) any contingent or indemnification obligations not then due. Any such release of Obligations shall be deemed subject to the provision that such Obligations shall be reinstated if after such release any portion of any payment in respect of the Obligations guaranteed thereby shall be rescinded or must otherwise be restored or returned upon the insolvency, bankruptcy, dissolution, liquidation or reorganization of the Borrower or any Guarantor, or upon or as a result of the appointment of a receiver, intervenor or conservator of, or trustee or similar officer for, the Borrower or any Guarantor or any substantial part of its property, or otherwise, all as though such payment had not been made.

(c) Notwithstanding anything to the contrary contained herein or any other Loan Document, upon the Borrower's election to enter into an Investment Grade Period pursuant to Section 11.15 and delivery of the written notice contemplated therein, the Administrative Agent shall (without notice to, or vote or consent of, any Secured Party) take such actions as shall be required to release its security interest in all Collateral, and to release all obligations under any Security Document.

Section 11.15 Investment Grade Election.

(a) At any time that is not an Investment Grade Period, on any date on which the Borrower has either (i) an unsecured rating from Moody's of Baa3 or better or (ii) an unsecured rating from S&P of BBB- or better, the Borrower may provide written notice to the Administrative Agent of its election to enter into an Investment Grade Period, together with a certificate of an Authorized Officer of the Borrower confirming that (A) no Event of Default exists, (B) the release of the Security Documents securing the Obligations does not violate the terms of any Secured Hedge Agreement or Secured Cash Management Agreement, and (C) no Hedging Contracts (including the Secured Hedge Agreements) or agreements for Cash Management Obligations (including any Secured Cash Management Agreements) of the Borrower and its Restricted Subsidiaries are otherwise secured (except to the extent secured by a Permitted Lien), which Investment Grade Period will commence upon the Administrative Agent's receipt of such notice.

(b) At any time during an Investment Grade Period, the Borrower may provide notice to the Administrative Agent of its election to exit such Investment Grade Period, which Investment Grade Period will end upon the Administrative Agent's receipt of such notice.

Section 11.16 Interest Rate Limitation. Notwithstanding anything herein to the contrary, if at any time the interest rate applicable to any Loan, together with all fees, charges and other amounts which are treated as interest on such Loan under applicable law (collectively the "Charges"), shall exceed the maximum lawful rate (the "Maximum Rate") which may be contracted for, charged, taken, received or reserved by the Lender holding such Loan in accordance with applicable law, the rate of interest payable in respect of such Loan hereunder, together with all Charges payable in respect thereof, shall be limited to the Maximum Rate and, to the extent lawful, the interest and Charges that would have been payable in respect of such Loan but were not payable as a result of the operation of this Section shall be cumulated and the interest and Charges payable to such Lender in respect of other Loans or periods shall be increased (but not

above the Maximum Rate therefor) until such cumulated amount, together with interest thereon at the Federal Funds Effective Rate to the date of repayment, shall have been received by such Lender.

Section 11.17 USA PATRIOT Act . Each Lender that is subject to the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the "Act") hereby notifies the Borrower that pursuant to the requirements of the Act, it is required to obtain, verify and record information that identifies the Borrower, which information includes the name and address of the Borrower and other information that will allow such Lender to identify the Borrower in accordance with the Act.

Section 11.18 Existing Credit Agreement. Upon the Effective Date: (i) all loans, letters of credit, and other Indebtedness, obligations and liabilities outstanding under the Existing Credit Agreement on such date shall continue to constitute Loans, Letters of Credit and other Indebtedness, obligations and liabilities under this Agreement, (ii) the execution and delivery of this Agreement or any of the Loan Documents hereunder shall not constitute a novation, refinancing or any other fundamental change in the relationship among the parties and (iii) the Loans, Letters of Credit, and other Indebtedness, obligations and liabilities outstanding hereunder, to the extent outstanding under the Existing Credit Agreement immediately prior to the date hereof, shall constitute the same loans, letters of credit, and other Indebtedness, obligations and liabilities as were outstanding under the Existing Credit Agreement. Notwithstanding the foregoing, each of the Credit Parties hereby acknowledges that any Indebtedness, obligations and liabilities which by the terms of the Existing Credit Agreement expressly survive the termination, cancellation or replacement of the Existing Credit Agreement constitute Indebtedness, obligations and liabilities of the Credit Parties under this Agreement.

Section 11.19 Reaffirmation and Grant of Security Interest. Except as provided in Section 11.19, each Credit Party hereby (i) confirms that each Security Document (as defined in the Existing Credit Agreement) to which it is a party or is otherwise bound and all assets, property and interests encumbered thereby will continue to guarantee or secure, as the case may be, to the fullest extent possible in accordance with the Loan Documents, the payment and performance of all Obligations and Guaranteed Liabilities under this Agreement and the Secured Obligations and Secured Indebtedness (as each such term is defined in the Security Documents) under the Security Documents, and (ii) grants to the Administrative Agent for the benefit of the Secured Parties a continuing Lien on and security interest in and to such Credit Party's right, title and interest in, to and under all Collateral as collateral security for the prompt payment and performance in full when due of the Obligations and Guaranteed Liabilities under this Agreement and the Secured Obligations and Secured Indebtedness under the Security Documents (whether at stated maturity, by acceleration or otherwise) in accordance with the terms thereof.

Section 11.20 Reallocation of Commitments and Loans. The Lenders (including the Departing Lenders) party to the Existing Credit Agreement have agreed among themselves to reallocate their respective Commitments (as defined in the Existing Credit Agreement) as contemplated by this Agreement. On the Effective Date and after giving effect to such reallocation and adjustment of the Aggregate Commitment, the Commitment and Applicable Percentage of each Lender shall be as set forth on Schedule 1.01 and each Lender shall own its Applicable Percentage of the outstanding Loans. The reallocation and adjustment to the Commitments of each Lender as contemplated by this Section 11.18 shall be deemed to have been consummated pursuant to the terms of the Assignment and Assumption attached as Exhibit A hereto as if each of the Lenders had executed an Assignment and Assumption with respect to such reallocation and adjustment. Borrower and the Administrative Agent hereby consent to such reallocation and adjustment of the Commitments. The Administrative Agent hereby waives the $3,500 processing and recordation fee set forth in Section 11.04(b)(ii)(C) with respect to the assignments and reallocations of the Commitments contemplated by this Section 11.18. To the extent requested by any Lender, and in accordance with Section 2.16, the Borrower shall pay to such Lender, within the time period prescribed by Section 2.16, any amounts required to be paid by the Borrower under Section 2.16 in the event the payment

of any principal of any Eurodollar Loan or the conversion of any Eurodollar Loan other than on the last day of an Interest Period applicable thereto is required in connection with the reallocation contemplated by this Section 11.18.

Section 11.21 Flood Insurance Regulation. Notwithstanding any provision in any Mortgage to the contrary, in no event is any Building (as defined in the applicable Flood Insurance Regulation) or Manufactured (Mobile) Home (as defined in the applicable Flood Insurance Regulation) included in the definition of "Mortgaged Properties" and no such Building or Manufactured (Mobile) Home shall be encumbered by any Mortgage. As used herein, "Flood Insurance Regulations" shall mean (i) the National Flood Insurance Act of 1968 as now or hereafter in effect or any successor statute thereto, (ii) the Flood Disaster Protection Act of 1973 as now or hereafter in effect or any successor statue thereto, (iii) the National Flood Insurance Reform Act of 1994 (amending 42 USC 4001, et seq.), as the same may be amended or recodified from time to time, and (iv) the Flood Insurance Reform Act of 2004 and any regulations promulgated thereunder.

Section 11.22 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent entity, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of any EEA Resolution Authority.

[*Signature pages follow*]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first above written.

BORROWER:

ANTERO RESOURCES CORPORATION

By: /s/ Alvyn A. Schopp
Name: Alvyn A. Schopp
Title: Chief Administrative Officer, Regional Senior Vice President and Treasurer

RESTRICTED SUBSIDIARIES:

MONROE PIPELINE LLC

By: /s/ Alvyn A. Schopp
Name: Alvyn A. Schopp
Title: Chief Administrative Officer, Regional Senior Vice President and Treasurer

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent, Issuing Bank and a Lender

By: /s/ David Morris
Name: David Morris
Title: Authorized Officer

WELLS FARGO BANK, N.A.,
as a Lender

By: /s/ Suzanne Ridenhour
Name: Suzanne Ridenhour
Title: Director

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK
as a Lender

By: /s/ David Gurghigian
Name: David Gurghigian
Title: Managing Director

By: /s/ Nimisha Srivastav
Name: Nimisha Srivastav
Title: Director

CITIBANK, N.A.
as a Lender

By: /s/ Phil Ballard
Name: Phil Ballard
Title: Vice President

BARCLAYS BANK PLC,
as a Lender

By: /s/ Sydney G. Dennis
Name: Sydney G. Dennis
Title: Director

CAPITAL ONE, NATIONAL ASSOCIATION,
as a Lender

By: /s/ Matthew Brice
Name: Matthew Brice
Title: Vice President

TORONTO DOMINION (NEW YORK) LLC,
as a Lender

By: /s/ Elisa Pileggi
Name: Elisa Pileggi
Title: Authorized Signatory

COMERICA BANK,
as a Lender

By: /s/ Cassandra M. Lucas
Name: Cassandra M. Lucas
Title: Portfolio Manager

BMO HARRIS BANK N.A.,
as a Lender

By: /s/ Kevin Utsey
Name: Kevin Utsey
Title: Director

U.S. BANK NATIONAL ASSOCIATION,
as a Lender

By: /s/ John C. Lozano
Name: John C. Lozano
Title: Vice President

CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH,
as a Lender

By: /s/ Nupur Kumar
Name: Nupur Kumar
Title: Authorized Signatory

By: /s/ Christopher Zybrick
Name: Christopher Zybrick
Title: Authorized Signatory

THE BANK OF NOVA SCOTIA
as a Lender

By: /s/ Alan Dawson
Name: Alan Dawson
Title: Director

BRANCH BANKING AND TRUST COMPANY,
as a Lender

By: /s/ Greg Krablin
Name: Greg Krablin
Title: Vice President

CANADIAN IMPERIAL BANK OF COMMERCE, NEW YORK BRANCH,
as a Lender

By: /s/ Trudy Nelson
Name: Trudy Nelson
Title: Authorized Signatory

By: /s/ Richard Antl
Name: Richard Antl
Title: Authorized Signatory

ABN AMRO CAPITAL USA LLC,
as a Lender

By: /s/ Darrell Holley
Name: Darrell Holley
Title: Managing Director

By: /s/ David Montgomery
Name: David Montgomery
Title: Managing Director

PNC BANK NATIONAL ASSOCIATION,
as a Lender

By: /s/ Denise S. Davis
Name: Denise S. Davis
Title: Vice President

SUMITOMO MITSUI BANKING CORPORATION,
as a Lender

By: /s/ James D. Weinstein
Name: James D. Weinstein
Title: Managing Director

BANK OF AMERICA, N.A.,
as a Lender

By: /s/ Greg M. Hall
Name: Greg M. Hall
Title: Vice President

COMPASS BANK,
as a Lender

By: /s/ Gabriela Azcarate
Name: Gabriela Azcarate
Title: Vice President

MORGAN STANLEY BANK, N.A.,
as a Lender

By: /s/ Michael King
Name: Michael King
Title: Authorized Signatory

SUNTRUST BANK,
as a Lender

By: /s/ Benjamin L. Brown
Name: Benjamin L. Brown
Title: Director

NATIXIS, NEW YORK BRANCH,
as a Lender

By: /s/ Kenyatta Gibbs
Name: Kenyatta Gibbs
Title: Director

By: /s/ Brice Le Foyer
Name: Brice Le Foyer
Title: Director

DNB CAPITAL LLC,
as a Lender

By: /s/ James Grubb
Name: James Grubb
Title: Vice President

By: /s/ Jill Ilski
Name: Jill Ilski
Title: Vice President

ING CAPITAL LLC
as a Lender

By: /s/ Juli Bieser
Name: Juli Bieser
Title: Managing Director

By: /s/ Charles Hall
Name: Charles Hall
Title: Managing Director

EXHIBIT A

ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the "Assignment and Assumption") is dated as of the Effective Date set forth below and is entered into by and between [Insert name of Assignor] (the "Assignor") and [Insert name of Assignee] (the "Assignee"). Capitalized terms used but not defined herein shall have the meanings given to them in the Credit Agreement identified below (as amended, the "Credit Agreement"), receipt of a copy of which is hereby acknowledged by the Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to the Assignee, and the Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below (i) all of the Assignor's rights and obligations in its capacity as a Lender under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below (including any letters of credit and guarantees included in such facilities) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned pursuant to clauses (i) and (ii) above being referred to herein collectively as the "Assigned Interest"). Such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: _____

2. Assignee: _____
[and is an Affiliate/Approved Fund of [identify Lender]]

3. Borrower: Antero Resources Corporation

4. Administrative Agent: JPMorgan Chase Bank, N.A., as the administrative agent under the Credit Agreement

5. Credit Agreement: Fifth Amended and Restated Credit Agreement dated as of October 26, 2017 among Antero Resources Corporation, as Borrower, certain Subsidiaries of the Borrower, as Guarantors, the Lenders parties thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent

6. Assigned Interest:

Aggregate Commitment/ Loans for all Lenders	Amount of Commitment/ Loans Assigned	Maximum Facility Amount	Amount of Maximum Facility Amount Assigned	Applicable Percentage of Commitment/Loans/ Maximum Facility Amount
$	$	$	$	%
$	$	$	$	%
$	$	$	$	%

Effective Date: _____ ___, 201__

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR

[NAME OF ASSIGNOR]

By: _____
Title:

ASSIGNEE

[NAME OF ASSIGNEE]

By: _____
Title:

[Consented to and] Accepted:

JPMORGAN CHASE BANK, N.A.
as Administrative Agent and Issuing Bank

By: _____
Title:

[Consented to:]

ANTERO RESOURCES CORPORATION

By: _____
Title:

Fifth Amended and Restated Credit Agreement dated as of October 26, 2017 among Antero Resources Corporation, as Borrower, certain Subsidiaries of the Borrower, as Guarantors, the Lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent.

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

1.1 Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim and (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement or any other Loan Document, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Loan Documents or any collateral thereunder, (iii) the financial condition of the Borrower, any Subsidiary or Affiliates or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Borrower, any Subsidiary or Affiliates or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee. The Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it satisfies the requirements, if any, specified in the Credit Agreement that are required to be satisfied by it in order to acquire the Assigned Interest and become a Lender, (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of the Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it has received a copy of the Credit Agreement, together with copies of the most recent financial statements delivered pursuant to Section 6.01 thereof, as applicable, and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase the Assigned Interest on the basis of which it has made such analysis and decision independently and without reliance on the Administrative Agent or any other Lender, and (v) if it is a Foreign Lender, attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by the Assignee; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, the Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to the Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy or other electronic means shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of New York.

EXHIBIT B

OPINION OF COUNSEL FOR THE BORROWER

(See attached)

October 26, 2017

Each of the Addressees Listed in
the Attached Schedule I

RE: $4,750,000,000 Credit Facility

Ladies and Gentlemen:

We have acted as counsel for Antero Resources Corporation, a corporation organized under the laws of the State of Delaware (the "Borrower"), and Monroe Pipeline LLC, a limited liability company organized under the laws of the State of Delaware (the "Guarantor", together with the Borrower, the "Opinion Parties", and each individually an "Opinion Party"), in connection with the transactions contemplated by that certain Fifth Amended and Restated Credit Agreement, dated as of October 26, 2017 (the "Agreement"), among the Opinion Parties, JPMorgan Chase Bank, N.A., as Administrative Agent, and the other Agents and Lenders from time to time party thereto. This opinion letter is furnished to you pursuant to Section 5.01(b) of the Agreement. Unless otherwise defined herein (including the Schedules hereto), capitalized terms used herein have the meanings assigned to such terms in the Agreement. Other terms that are defined in the Uniform Commercial Code as in effect on the date hereof in the State of New York (the "New York UCC") have the same meaning when used herein unless otherwise indicated by the context in which such terms are so used. Unless otherwise indicated, references to the "UCC" shall mean (i) with respect to the validity, creation or attachment of a security interest, the New York UCC and (ii) with respect to the perfection of a security interest, the Uniform Commercial Code as in effect on the date hereof in the jurisdiction of incorporation or formation of the relevant Opinion Party.

In rendering the opinions set forth below, we have reviewed an execution copy of the following documents and instruments:

(i) the Agreement;

(ii) the Notes, dated as of October 26, 2017, executed by the Borrower in the favor of each respective Lender referenced therein (the "Notes");

(iii) the Fifth Amended and Restated Security Agreement, dated as of October 26, 2017 by the Borrower in favor of the Administrative Agent (the "Security Agreement");

(iv) the Second Amended and Restated Trademark Security Agreement, dated as of October 26, 2017 by Borrower in favor of the Administrative Agent (the "Trademark Security Agreement");

(v) the Fourth Amended and Restated Pledge and Security Agreement, dated as of October 26, 2017 by the Borrower in favor of the Administrative Agent (the "Pledge Agreement, and together with the Security Agreement and the Trademark Security Agreement, the "Security Agreements");

(vi) unfiled copies of the UCC-1 Financing Statement (the "Financing Statements") referred to on Schedule II hereto in connection with the Security Agreement or Pledge Agreement, as applicable; and

(viii) for each Opinion Party, the organizational documents listed on Schedule III (the "Organizational Documents").

The documents listed in clauses (i) through (v) above are referred to herein as the "Opinion Documents". The Opinion Documents and the Organizational Documents are referred to herein as the "Transaction Documents."

In rendering the opinions set forth below, we have reviewed such other records, certificates and documents as we have deemed appropriate for the purposes of such opinions. As to any facts material to our opinions, we have made no independent investigation of such facts and have relied, to the extent that we deem such reliance proper, upon statements of public officials and officers or other representatives of the Opinion Parties and on the representations and warranties set forth in the Transaction Documents.

In rendering the opinions expressed below, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity to authentic original documents of all documents submitted to us as copies, which assumptions we have not independently verified. In addition, with your permission and without independent investigation, we have made the following assumptions:

(i) Each party to the Transaction Documents (each such party, a "Transaction Party") is a corporation, partnership, limited liability company or other entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization (except that we have not made such assumptions with respect to the Opinion Parties to the extent of our opinion in paragraph 1 below);

(ii) Each Transaction Party has full power and authority (corporate, partnership, limited liability company or otherwise) to execute, deliver and perform its obligations under the Transaction Documents to which it is a party (except that we have not made such assumptions with respect to the Opinion Parties to the extent of our opinion in paragraph 2 below);

(iii) Each Transaction Document has been duly executed and delivered by each Transaction Party that is a party thereto (except that we have not made such assumption with respect to the Opinion Parties to the extent of our opinion in paragraph 4 below);

(iv) The execution, delivery and performance by each Transaction Party of the Transaction Documents to which it is a party have been duly authorized by all necessary entity action (corporate, partnership, limited liability company or otherwise) and do not contravene the constitutive documents of such Transaction Party (except that we have not made such assumption with respect to the Opinion Parties to the extent of our opinions in paragraphs 3 and 6 below);

(v) The execution, delivery and performance by each Transaction Party of the Transaction Documents to which it is a party do not conflict with or result in the breach of any document or instrument binding on it (except that as to the Opinion Parties, we have not made such assumption with respect to the Organizational Documents, to the extent of our opinions in paragraph 6 below);

(vi) The execution, delivery and performance by each Transaction Party of the Transaction Documents to which it is a party do not contravene any provision of any law, rule, regulation, order, validation, writ, judgment, injunction, decree, determination or award applicable to any of them (except that we have not made such assumption with respect to Applicable Laws (as defined in paragraph 7 below) applicable to the Opinion Parties, to the extent of our opinion in paragraph 7 below);

(vii) No authorization, approval, consent, order, validation, license, franchise, permit or other action by, and no notice to or filing, recording or registration with, any Governmental Authority or any other third party is required for the due execution, delivery and performance by each Transaction Party of the Transaction Documents to which it is a party that has not been duly obtained or made and that is not in full force and effect (except that we have not made such assumption with respect to Governmental Approvals (as defined in paragraph 8 below) required to be obtained or taken by the Opinion Party to the extent of our opinion in paragraph 8 below);

(viii) The Transaction Documents constitute the valid, binding and enforceable obligations of each party thereto (except that we have not made such assumption with respect to the Opinion Parties to the extent of our opinion in paragraph 5 below); and

(ix) The laws of any jurisdiction other than the laws that are the subject of this opinion letter do not affect the terms of the Transaction Documents or the opinions rendered herein.

Based upon the foregoing, and subject to the assumptions, qualifications, exceptions and limitations set forth herein, it is our opinion that:

1. Each Opinion Party is validly existing and in good standing as a corporation or limited liability company under the laws of the State of Delaware.

2. Each Opinion Party has the corporate or limited liability company power and authority to execute and deliver each Opinion Document to which it is a party and to perform its obligations thereunder.

3. The execution and delivery by each Opinion Party of each Opinion Document to which it is a party and the performance by each such Opinion Party of its obligations thereunder have been duly authorized by all requisite corporate action, as applicable, on the part of each such Opinion Party.

4. Each Opinion Document to which any Opinion Party is a party has been duly executed and delivered by each such Opinion Party.

5. Under the laws of the State of New York, each Opinion Document to which any Opinion Party is a party constitutes the legal, valid and binding obligation of such Opinion Party enforceable against such Opinion Party in accordance with its terms.

6. The execution and delivery by each Opinion Party of each Opinion Document to which it is a party do not, and the performance by each Opinion Party of its obligations thereunder will not violate the Organizational Documents of such Opinion Party.

7. The execution and delivery by each Opinion Party of each Opinion Document to which it is a party does not, and the performance by such Opinion Party of its obligations thereunder will not, result in any violation by such Opinion Party of any Applicable Laws (as defined below).

   "Applicable Laws" means (a) the General Corporation Law of the State of Delaware, and (b) those laws, rules and regulations of the State of New York and the United States of America and the rules and regulations adopted thereunder, which, in our experience, are normally applicable to transactions of the type contemplated by the Opinion Documents. Furthermore, the term "Applicable Laws" does not include, and we express no opinion with regard to any: (a) any New York or federal law, rule or regulation relating to (i) pollution or protection of the environment, (ii) zoning, land use, building or construction, (iii) occupational, safety and health or other similar matters or (iv) labor and employee rights and benefits, including, without limitation, the Employment Retirement Income Security Act of 1974, as amended; (v) state or federal laws and regulations regarding the regulation of energy or utilities; (vi) antitrust and trade regulation laws; (vii) tax; (viii) securities, including without limitation, the Investment Company Act of 1940, as amended ; (ix) corrupt practices, including, without limitation, the Foreign Corrupt Practices Act of 1977; (x) copyrights, patents and trademarks; (xi) communication, telecommunication or similar matters; (xii) the USA Patriot Act of 2001 and the rules, regulations and policies promulgated thereunder, or any foreign assets control regulations of the United States Treasury Department or any enabling legislation or orders relating thereto; and (xiii) the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010; and (b) any laws, rules or regulations of any county, municipality or similar political subdivision or any agency or instrumentality thereof.

8. No Governmental Approval (as defined below) which has not been obtained or taken and is not in full force and effect, is required to be obtained or taken by any Opinion Party to authorize, or is required in connection with, the execution, delivery or performance of any of the Opinion Documents by any Opinion Party except: (a) the filing of the Financing Statements in the filing offices set forth in paragraph 10 hereof; and (b) Governmental Approvals not required to consummate the transactions occurring on the date hereof but required to be obtained or made after the date of this opinion letter to enable the Opinion Parties to comply with requirements of Applicable Law including those required to maintain existence and good standing of the Opinion Parties.

   "Governmental Approvals" means any consent, approval, license, authorization or validation of, or filing, recording or registration with, any Governmental Authority pursuant to any Applicable Laws (as defined in paragraph 7 above).

9. The provisions of the Security Agreements are effective to create in favor of the Administrative Agent to secure the Obligations, a valid security interest in all of each Opinion Party's right, title and interest in and to that portion of the Collateral (as defined in the Security Agreement and the Pledge Agreement) in which a

security interest may be created under Article 9 of the New York UCC without giving effect to the laws referred to in Section 9-201 thereof (the "Article 9 Collateral").

10. To the extent that the filing of a financing statement can be effective to perfect a security interest in the Article 9 Collateral under the Uniform Commercial Code as in effect in the State of Delaware (the "Delaware UCC"), the security interest in favor of the Administrative Agent in that portion of the Article 9 Collateral described in the Financing Statements will be perfected upon the proper filing of such Financing Statement in the office of the Secretary of State of the State of Delaware. For purposes of our opinion set forth in this paragraph 10, we have based such opinion solely on our review of the generally available compilations of Article 9 of the Delaware UCC as in effect on the date hereof and we have not reviewed any other laws of the State of Delaware or retained or relied on any opinion or advice of Delaware counsel.

11. No Opinion Party is, or is required to be registered as, an "investment company" under the Investment Company Act of 1940, as amended.

12. We call to your attention the fact that the Opinion Documents select the internal laws of the State of New York as the governing law except, with respect to the Security Agreement, Trademark Security Agreement and Pledge Agreement, where the laws of another jurisdiction govern perfection and the effect of perfection or non-perfection. It is our opinion that a federal or state court sitting in New York should honor the parties' choice of the internal laws of the State of New York as the law applicable to the Opinion Documents (to the extent set forth in such Opinion Documents).

In rendering the foregoing opinions, we have also assumed, with your permission, and without independent investigation on our part, the following:

A. With respect to our opinions set forth in paragraphs 9 and 10 above, we have assumed that each Opinion Party has, or has the power to transfer, rights in the properties in which it is purporting to grant a security interest sufficient for attachment of such security interest within the meaning of Section 9-203 of the New York UCC.

B. With respect to our opinions set forth in paragraphs 9 and 10 above, we have assumed that the Administrative Agent has acquired its interests in the Article 9 Collateral for value within the meaning of Section 9-203 of the New York UCC.

C. With respect to our opinions set forth in paragraphs 9 and 10 above, we have assumed the descriptions of collateral contained in or attached as schedules to, the Security Agreements, sufficiently describe (for the purposes of the attachment and perfection of security interests) the collateral intended to be covered thereby.

D. With respect to our opinion set forth in paragraph 10 above, we have assumed that (i) the correct legal name of each Opinion Party is as set forth on the Financing Statements and (ii) each Opinion Party is solely organized under the laws of the State of Delaware (as set forth on Schedule III hereto).

The opinions set forth above are subject to the following qualifications and exceptions:

a) The opinions in paragraphs 1, 2, 3, 4 and 6(a) above are limited in all respects to the "General Corporation Law of the State of Delaware" (as published in the Corporation Service Company compilation entitled Laws Governing Business Entities Annotated Statutes and Rules (Fall 2017 Edition)), the "Limited Liability Company Act" of the State of Delaware (as published in the Corporation Service Company compilation entitled Laws Governing Business Entities Annotated Statutes and Rules (Fall 2017 Edition)). The opinions in paragraph 1 above to the extent they relate to the existence and good standing of each Opinion Party in the State of Delaware are based solely on the Good Standing Certificate of the Borrower and the Guarantor set forth on Schedule III hereto.

b) The enforceability of each Opinion Document and the provisions thereof may be limited by bankruptcy, insolvency, reorganization, fraudulent transfer, moratorium or other laws now or hereafter in effect relating to or affecting enforcement of creditors' rights generally and by general principles of equity (including, without

limitation, concepts of materiality, reasonableness, good faith and fair dealing), regardless of whether such enforcement is considered in a proceeding in equity or at law.

c) With respect to our opinions set forth in paragraphs 5 and 7 above, we express no opinion with respect to the validity, legally binding effect or enforceability of the following provisions to the extent that they are contained in the Opinion Documents: (i) provisions purporting to release, exculpate, hold harmless, or exempt any person or entity from, or to require indemnification or contribution of or by any person or entity for, liability for any matter to the extent that the same are inconsistent with applicable law (including case law) or with public policy; (ii) provisions purporting to waive, subordinate or not give effect to rights to notice, demands, legal defenses or other rights or benefits that cannot be waived, subordinated or rendered ineffective under applicable law; (iii) provisions purporting to provide remedies inconsistent with applicable law; (iv) provisions purporting to render void and of no effect any transfers of an Opinion Party's rights in any collateral in violation of the terms of the Opinion Documents; (v) other than with respect to our opinions set forth in paragraphs 9 and 10, provisions relating to the creation, attachment, perfection or enforceability of any fixture filing or security interest; (vi) provisions relating to powers of attorney, severability or set-offs; (vii) provisions stating that a guarantee will not be affected by a modification of the obligation guaranteed in cases in which that modification materially changes the nature or amount of such obligation; (viii) provisions that limit the obligation of a guarantor, co-borrower or co-obligor (or provide for any rights of contribution as against another guarantor or, co-borrower or co-obligor or any other party) based upon the potential unenforceability, invalidity, or voidability of a guarantee or joint obligation under any applicable law, including, without limitation, any state or federal fraudulent transfer or fraudulent conveyance laws; (ix) provisions restricting access to courts or purporting to affect the jurisdiction or venue of courts (other than the state courts of the State of New York) or purporting to grant courts exclusive jurisdiction; (x) provisions setting out methods for service of process; (xi) provisions purporting to exclude all conflicts of law rules; (xii) provisions relating to arbitration or mediation of disputes; (xiii) provisions pursuant to which a party agrees that a judgment rendered by a court or other tribunal in one jurisdiction may be enforced in any other jurisdiction; (xiv) provisions providing that decisions by a party are conclusive or may be made in its sole discretion; (xv) provisions providing for liquidated damages or any "make whole", "yield maintenance" or "premium amount" to the extent that they may be deemed a penalty; (xvi) provisions that require the Opinion Party to indemnify any other party to such Opinion Document against loss in obtaining the currency due under such Opinion Document from a court judgment in another currency; (xvii) provisions providing for voting of claims in bankruptcy; (xviii) any guaranty provided by, or any joint and several liability imposed upon, any person or entity that is not an "eligible contract participant" within the meaning of section 1a(18) of the Commodity Exchange Act, insofar as such guaranty or such joint and several liability covers an agreement, contract or transaction that constitutes a "swap" within the meaning of section 1a(47) of the Commodity Exchange Act; or (xix) provisions of the Agreement relating to (A) Article 55 (Contractual recognition of bail-in) of Directive 2014/59/EU of the European Parliament and of the Council of the European Union or (B) any law, rule or regulation implementing Article 55. Additionally, with respect to our opinion set forth in paragraph 5 above, such opinion is subject to possible judicial action giving effect to governmental actions or foreign laws affecting creditors' rights. Our opinions are based solely on our reading of the Opinion Documents. We note that enforceability of the Opinion Documents may be affected by the parties course of dealing, or by waivers, modifications or amendments (whether made in writing, orally, or by course of conduct), and we express no opinion on the effect of the foregoing on the enforceability of the Opinion Documents. We also express no opinion as to the ability of the Administrative Agent to use "self-help" remedies to repossess any Article 9 Collateral if a breach of the peace were to occur.

d) Insofar as our opinions set forth in paragraphs 5 and 12 above relate to the enforceability under New York law of the provisions of the Opinion Documents choosing New York law as the governing law thereof, such opinions are rendered solely in reliance upon the Act of July 19, 1984, ch. 421, 1984 McKinney's Sess. Law of N.Y. 1406 (codified at N.Y. Gen. Oblig. Law §§5-1401 (McKinney 1989)) (the "Act") and are subject to the qualifications that such enforceability (i) as specified in the Act, does not apply to the extent provided to the contrary in subsection (c) of Section 1-301 of the New York UCC, (ii) may be limited by public policy considerations of any jurisdiction in which enforcement of such provisions is sought, and (iii) is subject to any U.S. Constitutional requirement under the Full Faith and Credit Clause or the Due Process Clause thereof or the exercise of any applicable judicial discretion in favor of another jurisdiction. We note that the Hague Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary (the "Hague

Convention") sets forth certain choice of law rules that apply to certain issues (including perfection, priority, exercises of remedies and certain aspects of the creation and validity of a security interest) in respect of securities held with a securities intermediary in a securities account. With respect to our opinions set forth herein relating to securities held with a securities intermediary in a securities account, we express no opinion as to the applicability to, or the effects on, such opinions of the Hague Convention's choice of law rules with respect to the issues identified in Article 2(1) of the Hague Convention.

e) We express no opinion as to (i) the enforceability of any foreclosure or other rights and remedies which are not specified in the New York UCC or other applicable New York law, or which are not permitted by or are inconsistent with the New York UCC or other Applicable Law, (ii) provisions establishing standards for foreclosure remedies including, without limitation, notice periods and commercially reasonable sales and (iii) title to or ownership of any property.

f) Certain of the remedial provisions with respect to the Article 9 Collateral (including waivers with respect to the exercise of remedies against the collateral) contained in the Security Agreements may be unenforceable in whole or in part, but the inclusion of such provisions does not affect the validity of the Security Agreements, taken as a whole, and the Security Agreements, taken as a whole, together with applicable law, contain adequate provisions for the practical realization of the benefits intended to be provided thereby (it being understood that we express no opinion as to the adequacy of such provisions to the extent it is necessary to seek execution or enforcement of rights or remedies under the laws of any jurisdiction outside the State of New York). Additionally, we note that the remedies under the Security Agreements to sell or offer for sale the Article 9 Collateral are subject to compliance with applicable state and federal securities laws are subject to compliance with applicable state and federal securities laws and are subject to limitations imposed by Applicable Laws.

g) In the case of property which becomes Article 9 Collateral after the date hereof, our opinion in paragraph 9, as to the creation and validity of the security interests therein described, is subject to the effect of Section 552 of the Federal Bankruptcy Code, which limits the extent to which property acquired by a debtor after the commencement of a case under the Federal Bankruptcy Code may be subject to such security interest arising from a security agreement entered into by the debtor before the commencement of such case.

h) We express no opinion as to Article 9 Collateral that is subject to a state statute or a statute, regulation or treaty of the United States referred to in Section 9-311(a) of the Delaware UCC or Section 9-311(a) of the New York UCC.

i) With respect to our opinions set forth in paragraphs 9 and 10 above, we express no opinion as to Article 9 Collateral consisting of commercial tort claims.

j) With respect to our opinion in paragraph 10 above, we express no opinion as to the perfection of a security interest in any items of collateral that are or are to become fixtures, as-extracted collateral or timber to be cut.

k) Other than the filing of the Financing Statements in the filing offices set forth in our opinion in paragraph 10 above, we express no opinion as to any other action (including any filings or registrations) that may be necessary under any applicable law in connection with perfection of a security interest in Article 9 Collateral consisting of patents, trademarks, copyrights or other intellectual property rights.

l) With respect to our opinions set forth in paragraphs 9 and 10 above, we express no opinion as to the priority of any security interest.

m) We express no opinion on the perfection, non-perfection or the effect thereof of any security interest under the Trademark Security Agreement to the extent the property subject of the Trademark Security Agreement does not constitute Article 9 Collateral.

n) We express no opinion herein regarding the enforceability of any provision in anOpinion Document that purports to prohibit, restrict or condition the assignment of each Opinion Party's rights or obligations under such Opinion Document to the extent that such restriction on assignability is rendered ineffective by Sections 9-406 through 9-409 of the New York UCC.

o) In rendering the opinions above related to security interests in Article 9 Collateral, we call to your attention that security interests may not attach or become enforceable or be perfected as to Article 9 Collateral that is not assignable pursuant to a rule of law, statute or regulation, or is not assignable by its terms, or is assignable only with the consent of another person or entity which has not been obtained, except to the extent such restrictions are rendered ineffective under Sections 9-406, 9-407, 9-408 or 9-409 of the NY UCC or other applicable law. In addition in rendering such opinions, we call to your attention that even though the NY UCC renders certain anti-assignment provisions ineffective for purposes of creation, attachment or perfection of a security interest pursuant to Sections 9-406, 9-407, 9-408 or 9-409 of the NY UCC, nonetheless, in certain cases, the grantee of such security interest may have limited rights to enforce its security interest in collateral against an account debtor, the holder of a promissory note, or other Person named in the foregoing Sections, who did not consent to the transfer

p) With respect to our opinions set forth in paragraphs 9 and 10 above, the attachment and perfection of the Administrative Agent's security interest in proceeds is limited to the extent set forth in Section 9-315 of the Delaware UCC or Section 9-315 of the New York UCC.

q) We express no opinion as to any actions that may be required tobe taken periodically under the Delaware UCC, the New York UCC or under any other applicable law in order for the effectiveness of the Financing Statements or perfection of any security interest to be maintained.

r) We express no opinion as to the laws of any jurisdiction other than (i) as indicated in paragraph 10 above, the Delaware UCC; and (ii) the Applicable Laws.

This opinion has been prepared in accordance with the customary practice of lawyers who regularly give and lawyers who regularly advise recipients regarding opinions of this kind.

This opinion letter is rendered as of the date set forth above. We expressly disclaim any obligation to update this letter after such date.

This opinion letter is given solely for the benefit of the addressees and for the benefit of any successor to the Administrative Agent appointed pursuant to Section 11.04 of the Credit Agreement, in each case in connection with the transactions contemplated by the Opinion Documents, and may not be furnished to, or relied upon by, any other person or for any other purpose without our prior written consent, except that this opinion letter may be furnished (i) to the independent auditors and attorneys of the addressees hereof, (ii) to any governmental authority having regulatory jurisdiction over the addressees hereof, (iii) pursuant to an order or legal process of any court of competent jurisdiction or governmental agency with regulatory authority over the addressees hereof, (iv) in connection with the enforcement of any right or remedy under, or any litigation relating to, the Loan Documents or the transactions described therein, (v) to Persons engaged in the administration of the Loan Documents and (vi) any Person that is engaged in discussions with a Lender about becoming an Additional Lender (defined below), provided that none of the Persons referred to in the preceding clauses (i) though (vi) of this sentence shall be entitled to rely on this opinion letter in any respect. Notwithstanding the foregoing, at your request, we hereby consent to reliance on the opinions expressed herein, solely in connection with the Opinion Documents, by any person that becomes a Lender subsequent to the date of this opinion letter pursuant to an assignment that is made and consented to in accordance with the express provisions of Section 11.04 of the Credit Agreement (each an "Additional Lender") as if this opinion letter were addressed and delivered to such Additional Lender on the date hereof on the condition and understanding that: (a) this letter speaks only as of the date hereof; (b) we have no responsibility or obligation to update this letter, to consider its applicability or correctness to any person other than its addressee(s), or to take into account changes in law, facts or any other developments of which we may later become aware; (c) in no event shall any Additional Lender have any greater rights with respect hereto than the original addressees of this letter on the date hereof nor, in the case of any Additional Lender that becomes a Lender by assignment, any greater rights than its assignor; (d) in

furtherance of and not in limitation of the foregoing, our consent to such reliance shall in no event constitute a reissuance of the opinions expressed herein or otherwise extend any statute of limitations period applicable hereto on the date hereof; and (e) any such reliance also must be actual and reasonable under the circumstances at the time such Additional Lender becomes a Lender, including any circumstances relating to changes in law, facts or other developments known to or reasonably knowable by such Additional Lender at such time. Furthermore, all rights hereunder may be asserted only in a single proceeding by and through the Administrative Agent or the Required Lenders.

Very truly yours,

Vinson & Elkins L.L.P.

SCHEDULE I TO OPINION LETTER

Addressees

JPMorgan Chase Bank , N.A., as Administrative Agent

The Lenders party to the Agreement

Financing Statements

The following financing statements on form UCC-1 relating to the Security Agreement, naming the Person listed below as debtor and the Administrative Agent as secured party for the benefit of the Lenders, to be filed in the office listed opposite the name of such debtor:

Name of Debtor	Filing Office
Antero Resources Corporation	Delaware Secretary of State
Monroe Pipeline LLC	Delaware Secretary of State

The following financing statements on form UCC-1 relating to the Pledge Agreement, naming the Person listed below as debtor and the Administrative Agent as secured party for the benefit of the Lenders, to be filed in the office listed opposite the name of such debtor:

Name of Debtor	Filing Office
Antero Resources Corporation	Delaware Secretary of State
Monroe Pipeline LLC	Delaware Secretary of State

Organizational Documents

Note: Jurisdiction of organization in parentheses after name of company

Antero Resources Corporation (Delaware)

Amended and Restated Certificate of Incorporation filed October 16, 2013 with the Delaware Secretary of State

Amended and Restated Bylaws adopted October 16, 2013 by the Board of Directors

Certificate of Good Standing, dated October 16, 2017, issued by the Delaware Secretary of State

Monroe Pipeline LLC (Delaware)

Amended and Restated Certificate of Formation of Monroe Pipeline LLC filed December 30, 2014 with the Delaware Secretary of State

First Amended and Restated Limited Liability Company Agreement adopted December 30, 2014 by the Member

Certificate of Good Standing, dated October 16, 2017, issued by the Delaware Secretary of State

COUNTERPART AGREEMENT

This **COUNTERPART AGREEMENT**, dated [ ] (this "Counterpart Agreement") is delivered pursuant to that certain Fifth Amended and Restated Credit Agreement, dated as of October 26, 2017 (as it may be amended, supplemented or otherwise modified, the "Credit Agreement"; the terms defined therein and not otherwise defined herein being used herein as therein defined), by and among ANTERO RESOURCES CORPORATION, as Borrower, CERTAIN SUBSIDIARIES OF BORROWER, as Guarantors, the LENDERS party thereto, and JPMORGAN CHASE BANK, N.A., as Administrative Agent (the "Administrative Agent").

Section 1. Pursuant to Section 6.12 of the Credit Agreement, the undersigned hereby:

(a) agrees that this Counterpart Agreement may be attached to the Credit Agreement and that by the execution and delivery hereof, the undersigned becomes a Guarantor under the Credit Agreement and agrees to be bound by all of the terms thereof;

(b) represents and warrants that each of the representations and warranties set forth in the Credit Agreement and each other Loan Document and applicable to the undersigned is true and correct both before and after giving effect to this Counterpart Agreement, except to the extent that any such representation and warranty relates solely to any earlier date, in which case such representation and warranty is true and correct as of such earlier date (if applicable to the undersigned);

(c) agrees that no event has occurred or is continuing as of the date hereof, or will result from the transactions contemplated hereby on the date hereof, that would constitute an Event of Default or a Default;

(d) agrees to and hereby does irrevocably and unconditionally guaranty the due and punctual payment in full of all Obligations when the same shall become due, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise (including amounts that would become due but for the operation of the automatic stay under Section 362(a) of the Bankruptcy Code, 11 U.S.C. § 362(a)) and in accordance with Article VIII of the Credit Agreement;

(e) (i) agrees that this counterpart may also be attached to the Security Agreement, (ii) agrees that the undersigned will comply with all the terms and conditions of the Security Agreement as if it were an original signatory thereto, (iii) grants to the Administrative Agent a security interest in all of the undersigned's right, title and interest in and to all "Collateral" (as such term is defined in the Security Agreement) of the undersigned, in each case whether now or hereafter existing or in which the undersigned now has or hereafter acquires an interest and wherever the same may be located and (iv) delivers to the Administrative Agent supplements to all schedules attached to the Security Agreement. All such Collateral shall be deemed to be part of the "Collateral" and hereafter subject to each of the terms and conditions of the Security Agreement; and

(f) (i) agrees that this counterpart may also be attached to the Pledge Agreement, (ii) agrees that the undersigned will comply with all the terms and conditions of the Pledge Agreement as if it were an original signatory thereto, (iii) grants to the Administrative Agent a security interest in all of the undersigned's right, title and interest in and to all "Collateral" (as such term is defined in the Pledge Agreement) of the undersigned, in each case whether now or hereafter existing or in which the undersigned now has or hereafter acquires an interest and wherever the same may be located and (iv) delivers to the Administrative Agent supplements to all schedules attached to the Pledge Agreement. All such Collateral shall be deemed to be part of the "Collateral" and hereafter subject to each of the terms and conditions of the Pledge Agreement.

Section 2. The undersigned agrees from time to time, upon request of Administrative Agent, to take such additional actions and to execute and deliver such additional documents and instruments as Administrative Agent may request to effect the transactions contemplated by, and to carry out the intent of, this Counterpart Agreement. Neither this Counterpart Agreement nor any term hereof may be changed, waived, discharged or terminated, except by an instrument in writing signed by the party (including, if applicable, any party required to evidence its consent to or acceptance of this Counterpart Agreement) against whom enforcement of such change, waiver, discharge or termination is sought. Any notice or other communication herein required or permitted to be given shall be given pursuant to Section 11.01 of the Credit Agreement, and for all purposes thereof, the notice address of the undersigned shall be the address as set forth on the signature page hereof. In case any provision in or obligation under this Counterpart Agreement shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

THIS COUNTERPART AGREEMENT SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK.

IN WITNESS WHEREOF, the undersigned has caused this Counterpart Agreement to be duly executed and delivered by its duly authorized officer as of the date above first written.

[NAME OF SUBSIDIARY]
By: _____
Name:
Title:

Address for Notices:

_____
_____
_____
Attention:
Telecopier

with a copy to:

_____
_____
_____
Attention:
Telecopier

ACKNOWLEDGED AND ACCEPTED,
as of the date above first written:

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By: _____
Name:
Title:

EXHIBIT D

REVOLVING NOTE

New York, New York [_____,____]

FOR VALUE RECEIVED, the undersigned, Antero Resources Corporation, a Delaware corporation ("Antero" and the "Borrower"), hereby unconditionally promises to pay to [_____] (herein called "Lender"), the principal sum equal to its Commitment as set forth in the Credit Agreement (as hereinafter defined), or, if greater or less, the aggregate unpaid principal amount of the Loans made by Lender to Borrower pursuant to the terms of the Credit Agreement, together with interest on the unpaid principal balance thereof as set forth in the Credit Agreement, both principal and interest payable as therein provided in lawful money of the United States of America at the offices of Administrative Agent provided in Section 11.01 of the Credit Agreement, or at such other place, as from time to time may be designated by Administrative Agent in accordance with the Credit Agreement.

This Revolving Note (herein called "Note") (a) is issued and delivered under that certain Fifth Amended and Restated Credit Agreement dated as of October 26, 2017, among the Borrower, certain Subsidiaries of the Borrower, as Guarantors, the lenders from time to time a party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (herein, as from time to time supplemented, amended, restated or otherwise modified, called the "Credit Agreement"; capitalized terms used herein and not otherwise defined shall have the meanings specified in the Credit Agreement), (b) is subject to the terms and provisions of the Credit Agreement, which contains provisions for payments and prepayments hereunder and acceleration of the maturity hereof upon the happening of certain stated events, and (c) is secured by and entitled to the benefits of certain Security Documents (as identified and defined in the Credit Agreement). Payments on this Note shall be made and applied as provided in the Credit Agreement. Reference is hereby made to the Credit Agreement for a description of certain rights, limitations of rights, obligations and duties of the parties hereto and for the meanings assigned to terms used and not defined herein and to the Security Documents for a description of the nature and extent of the security thereby provided and the rights of the parties thereto.

The principal amount of this Note, together with all interest accrued hereon, shall be due and payable in full on the Maturity Date or as otherwise provided under the Credit Agreement.

Notwithstanding the foregoing paragraph and all other provisions of this Note, in no event shall the interest payable hereon, whether before or after maturity, exceed the maximum amount of interest which, under applicable law, may be contracted for, charged, or received on this Note, and this Note is expressly made subject to the provisions of the Credit Agreement which more fully set out the limitations on how interest accrues hereon. The term "applicable law" as used in this Note shall mean the laws of the State of New York or the laws of the United States, whichever laws allow the greater interest, as such laws now exist or may be changed or amended or come into effect in the future.

If this Note is placed in the hands of an attorney for collection after default, or if all or any part of the Indebtedness represented hereby is proved, established or collected in any court or in any bankruptcy, receivership, debtor relief, probate or other court proceedings, Borrower and all endorsers, sureties and guarantors of this Note jointly and severally agree to pay reasonable attorneys' fees and collection costs to the holder hereof in addition to the principal and interest payable hereunder.

Borrower and all endorsers, sureties and guarantors of this Note hereby severally waive demand, presentment, notice of demand and of dishonor and nonpayment of this Note, protest, notice of protest, notice of intention to accelerate the maturity of this Note, declaration or notice of acceleration of the maturity of this Note, diligence in collecting, the bringing of any suit against any party and any notice of or defense on account of any extensions, renewals, partial payments or changes in any manner of or in this

Note or in any of its terms, provisions and covenants, or any releases or substitutions of any security, or any delay, indulgence or other act of any trustee or any holder hereof, whether before or after maturity.

This Note and the rights and duties of the parties hereto shall be governed by the laws of the State of New York, except to the extent the same are governed by applicable federal law.

THIS NOTE, THE CREDIT AGREEMENT AND THE OTHER LOAN DOCUMENTS REPRESENT THE FINAL AGREEMENT AMONG THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS AMONG THE PARTIES.

ANTERO RESOURCES CORPORATION
By: _____
Name:
Title:

EXHIBIT E

FORM OF LENDER CERTIFICATE

_____, 20___

To: JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

Antero Resources Corporation (the "Borrower"), certain Subsidiaries of Borrower, as Guarantors, the lenders from time to time party thereto (the "Lenders") and JPMorgan Chase Bank, N.A., as administrative agent for the Lenders (in such capacity, the "Administrative Agent") have entered into that certain Fifth Amended and Restated Credit Agreement, dated as of October 26, 2017 (as the same has been and may further be amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"). Unless otherwise defined herein, capitalized terms used herein have the meaning specified in the Credit Agreement.

[Language for Existing Lender]

[Please be advised that the undersigned has agreed (a) to increase its Commitment under the Credit Agreement effective _____, 20__ (the "Effective Date") from $_____ to $_____ and (b) that, from and after the Effective Date, it shall continue to be a Lender in all respects under the Credit Agreement and the other Loan Documents.]

[Language for New Lender]

[Please be advised that the undersigned has agreed (a) to become a Lender under the Credit Agreement effective _____, 20__ (the "Effective Date") with a Commitment of $_____ and (b) that, from and after the Effective Date, it shall be deemed to be a Lender in all respects under the Credit Agreement and the other Loan Documents and shall be bound thereby.]

Very truly yours,
[_____]

By: _____
Name:
Title:

Accepted and Agreed:

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By: _____
Name:
Title:

Accepted and Agreed:

ANTERO RESOURCES CORPORATION

By: _____
Name:
Title:

SCHEDULE 1.01

Applicable Percentages and Commitments

Lender	Commitment	Applicable Percentage
JPMorgan Chase Bank, N.A.	$160,000,000.00	6.40%
Wells Fargo Bank, N.A.	$160,000,000.00	6.40%
Bank of America, N.A.	$140,000,000.00	5.60%
Barclays Bank PLC	$140,000,000.00	5.60%
BMO Harris Bank N.A.	$140,000,000.00	5.60%
Capital One, National Association	$140,000,000.00	5.60%
Citibank, N.A.	$140,000,000.00	5.60%
Credit Agricole Corporate and Investment Bank	$140,000,000.00	5.60%
ABN Amro Capital USA LLC	$95,000,000.00	3.80%
The Bank of Nova Scotia	$95,000,000.00	3.80%
Compass Bank	$95,000,000.00	3.80%
Canadian Imperial Bank of Commerce, New York Branch	$95,000,000.00	3.80%
Credit Suisse AG, Cayman Islands Branch	$95,000,000.00	3.80%
DNB Capital LLC	$95,000,000.00	3.80%
ING Capital LLC	$95,000,000.00	3.80%
Natixis, New York Branch	$95,000,000.00	3.80%
Sumitomo Mitsui Banking Corporation	$95,000,000.00	3.80%
Toronto Dominion (New York) LLC	$95,000,000.00	3.80%
Branch Banking & Trust Company	$65,000,000.00	2.60%
Comerica Bank	$65,000,000.00	2.60%
Morgan Stanley Bank, N.A.	$65,000,000.00	2.60%
PNC Bank National Association	$65,000,000.00	2.60%
Suntrust Bank	$65,000,000.00	2.60%
U.S. Bank National Association	$65,000,000.00	2.60%
TOTAL	$2,500,000,000.00	100.00%

SCHEDULE 1.02

Letter of Credit Commitments

Issuing Bank	**Letter of Credit Commitment**
JPMorgan Chase Bank, N.A.	$475,000,000.00
Wells Fargo Bank, N.A.	$475,000,000.00
TOTAL	$950,000,000.00

SCHEDULE 4.13

Capitalization

Unrestricted Subsidiaries: Antero Midstream Partners LP

Borrower:

1. Antero Resources Corporation

   Jurisdiction of Organization: Delaware

   Federal Tax Identification Number: 32-0114849

Restricted Subsidiaries:

1. Monroe Pipeline LLC (wholly-owned subsidiary of Antero Resources Corporation)

   Jurisdiction of Organization: Delaware

Federal Tax Identification Number: 46-0608234

SCHEDULE 4.19

Sale of Production

- None.

SCHEDULE 5.01

Departing Lenders

MUFG Union Bank, N.A., f/k/a Union Bank, N.A.

BNP Paribas

Fifth Third Bank

HSBC Bank USA, National Association

Keybank National Association

Santander Bank, N.A.

Scotiabanc Inc.

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Paul M. Rady, Chairman and Chief Executive Officer of Antero Resources Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017 of Antero Resources Corporation (the "registrant");

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; and

    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; and

    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.

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.

Date: November 1, 2017

/s/ Paul M. Rady
Paul M. Rady
Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Glen C. Warren, Jr., President and Chief Financial Officer of Antero Resources Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017 of Antero Resources Corporation (the "registrant");

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; and

    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; and

    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.

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.

Date: November 1, 2017

/s/ Glen C. Warren, Jr.
Glen C. Warren, Jr.
Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER
OF ANTERO RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended September 30, 2017, I, Paul M. Rady, Chief Executive Officer of Antero Resources Corporation, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in this Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 fairly presents, in all material respects, the financial condition and results of operations of Antero Resources Corporation for the periods presented therein.

Date: November 1, 2017

/s/ Paul M. Rady
Paul M. Rady
Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF
CHIEF FINANCIAL OFFICER
OF ANTERO RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended September 30, 2017, I, Glen C. Warren, Jr., Chief Financial Officer of Antero Resources Corporation, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in this Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 fairly presents, in all material respects, the financial condition and results of operations of Antero Resources Corporation for the periods presented therein.

Date: November 1, 2017

/s/ Glen C. Warren, Jr.
Glen C. Warren, Jr.
Chief Financial Officer