

CABOT OIL & GAS CORP  
Form 10-K  
February 22, 2016

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D. C. 20549  
FORM 10-K  
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

Commission file number 1-10447

CABOT OIL & GAS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of  
incorporation or organization)

04-3072771

(I.R.S. Employer

Identification Number)

Three Memorial City Plaza, 840 Gessner Road, Suite 1400, Houston, Texas 77024

(Address of principal executive offices including ZIP code)

(281) 589-4600

(Registrant's telephone number, including area code)

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

Title of each class

Common Stock, par value \$.10 per share

Name of each exchange on which registered

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the

Act. Yes  No

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 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 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K .

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

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

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The aggregate market value of Common Stock, par value \$.10 per share ("Common Stock"), held by non-affiliates as of the last business day of registrant's most recently completed second fiscal quarter (based upon the closing sales price on the New York Stock Exchange on June 30, 2015) was approximately \$13.0 billion.

As of February 12, 2016, there were 414,060,202 shares of Common Stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for the Annual Meeting of Stockholders to be held May 4, 2016 are incorporated by reference into Part III of this report.

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**FORWARD-LOOKING INFORMATION**

The statements regarding future financial and operating performance and results, strategic pursuits and goals, market prices, future hedging activities, and other statements that are not historical facts contained in this report are forward-looking statements. The words "expect," "project," "estimate," "believe," "anticipate," "intend," "budget," "plan," "forecast," "predict," "may," "should," "could," "will" and similar expressions are also intended to identify forward-looking statements. Such statements involve risks and uncertainties, including, but not limited to, market factors, market prices (including geographic basis differentials) of natural gas and crude oil, results of future drilling and marketing activity, future production and costs, legislative and regulatory initiatives, electronic, cyber or physical security breaches and other factors detailed herein and in our other Securities and Exchange Commission filings. See "Risk Factors" in Item 1A for additional information about these risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those indicated.

**GLOSSARY OF CERTAIN OIL AND GAS TERMS**

The following are abbreviations and definitions of certain terms commonly used in the oil and gas industry and included within this Annual Report on Form 10-K:

**Abbreviations**

Bbl. One stock tank barrel, or 42 U.S. gallons liquid volume, used in reference to oil or other liquid hydrocarbons.

Bcf. One billion cubic feet of natural gas.

Bcfe. One billion cubic feet of natural gas equivalent.

Btu. One British thermal unit.

Dth. One million British thermal units.

Mbbls. One thousand barrels of oil or other liquid hydrocarbons.

Mcf. One thousand cubic feet of natural gas.

Mcfe. One thousand cubic feet of natural gas equivalent.

Mmbbls. One million barrels of oil or other liquid hydrocarbons.

Mmbtu. One million British thermal units.

Mmcf. One million cubic feet of natural gas.

Mmcfe. One million cubic feet of natural gas equivalent.

NGL. Natural gas liquids.

NYMEX. New York Mercantile Exchange.

**Definitions**

Condensate. A mixture of hydrocarbons that exists in the gaseous phase at original reservoir temperature and pressure, but that, when produced, is in the liquid phase at surface pressure and temperature.

Conventional play. A term used in the oil and gas industry to refer to an area believed to be capable of producing crude oil and natural gas occurring in discrete accumulations in structural and stratigraphic traps utilizing conventional recovery methods.

Developed reserves. Developed reserves are reserves that can be expected to be recovered: (i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Development costs. Costs incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas. More specifically, development costs, including depreciation and applicable operating

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costs of support equipment and facilities and other costs of development activities, are costs incurred to: (i) gain access to and prepare well locations for drilling, including surveying well locations for the purpose of determining specific development drilling sites, clearing ground, draining, road building, and relocating public roads, gas lines, and power lines, to the extent necessary in developing the proved reserves, (ii) drill and equip development wells, development-type stratigraphic test wells, and service wells, including the costs of platforms and of well equipment such as casing, tubing, pumping equipment, and the wellhead assembly, (iii) acquire, construct, and install production facilities such as lease flow lines, separators, treaters, heaters, manifolds, measuring devices, and production storage tanks, natural gas cycling and processing plants, and central utility and waste disposal systems, and (iv) provide improved recovery systems.

**Development well.** A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**Differential.** An adjustment to the price of oil or gas from an established spot market price to reflect differences in the quality and/or location of oil or gas.

**Dry hole.** Exploratory or development well that does not produce oil or gas in commercial quantities.

**Exploitation activities.** The process of the recovery of fluids from reservoirs and drilling and development of oil and gas reserves.

**Exploration costs.** Costs incurred in identifying areas that may warrant examination and in examining specific areas that are considered to have prospects of containing oil and gas reserves, including costs of drilling exploratory wells and exploratory-type stratigraphic test wells. Exploration costs may be incurred both before acquiring the related property (sometimes referred to in part as prospecting costs) and after acquiring the property. Principal types of exploration costs, which include depreciation and applicable operating costs of support equipment and facilities and other costs of exploration activities, are: (i) costs of topographical, geographical and geophysical studies, rights of access to properties to conduct those studies, and salaries and other expenses of geologists, geophysical crews, and others conducting those studies. Collectively, these are sometimes referred to as geological and geophysical or "G&G" costs, (ii) costs of carrying and retaining undeveloped properties, such as delay rentals, ad valorem taxes on properties, legal costs for title defense, and the maintenance of land and lease records, (iii) dry hole contributions and bottom hole contributions, (iv) costs of drilling and equipping exploratory wells, and (v) costs of drilling exploratory-type stratigraphic test wells.

**Exploratory well.** A well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir. Generally, an exploratory well is any well that is not a development well, an extension well, or a service well.

**Extension well.** An extension well is a well drilled to extend the limits of a known reservoir.

**Field.** An area consisting of a single reservoir or multiple reservoirs all grouped on or related to the same individual geological structural feature and/or stratigraphic condition. There may be two or more reservoirs in a field that are separated vertically by intervening impervious, strata, or laterally by local geological barriers, or by both. Reservoirs that are associated by being in overlapping or adjacent fields may be treated as a single or common operational field. The geological terms structural feature and stratigraphic condition are intended to identify localized geological features as opposed to the broader terms of basins, trends, provinces, plays, areas-of-interest, etc.

**Oil.** Crude oil and condensate.

**Operator.** The individual or company responsible for the exploration, development and/or production of an oil or gas well or lease.

**Play.** A geographic area with potential oil and gas reserves.

**Possible reserves.** Possible reserves are those additional reserves that are less certain to be recovered than probable reserves.

**Probable reserves.** Probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely not to be recovered.

**Production costs.** Costs incurred to operate and maintain wells and related equipment and facilities, including depreciation and applicable operating costs of support equipment and facilities, which become part of the cost of oil and gas produced.



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Proved properties. Properties with proved reserves.

Proved reserves. Proved reserves are those quantities, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions and operating methods prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the twelve-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Reasonable certainty. If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

Recompletion. An operation whereby a completion in one zone is abandoned in order to attempt a completion in a different zone within the existing wellbore.

Reliable technology. A grouping of one or more technologies (including computational methods) that has been field tested and has been demonstrated to provide reasonable certain results with consistency and repeatability in the formation being evaluated or in an analogous formation.

Reserves. Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

Reservoir. A porous and permeable underground formation containing a natural accumulation of producible oil and/or gas that is confined by impermeable rock or water barriers and is individual and separate from other reservoirs.

Resources. Resources are quantities of oil and gas estimated to exist in naturally occurring accumulations. A portion of the resources may be estimated to be recoverable, and another portion may be considered to be unrecoverable. Resources include both discovered and undiscovered accumulations.

Royalty interest. An interest in an oil and gas lease that gives the owner of the interest the right to receive a portion of the production from the leased acreage (or of the proceeds of the sale thereof), but generally does not require the owner to pay any portion of the costs of drilling or operating the wells on the leased acreage. Royalties may be either landowners' royalties, which are reserved by the owner of the leased acreage at the time the lease is granted, or overriding royalties, which are usually reserved by an owner of the leasehold in connection with a transfer to a subsequent owner.

Shale. Fine-grained sedimentary rock composed mostly of consolidated clay or mud.

Standardized measure. The present value, discounted at 10% per year, of estimated future net revenues from the production of proved reserves, computed by applying sales prices used in estimating proved oil and gas reserves to the year-end quantities of those reserves in effect as of the dates of such estimates and held constant throughout the productive life of the reserves (except for consideration of future price changes to the extent provided by contractual arrangements in existence at year-end), and deducting the estimated future costs to be incurred in developing, producing and abandoning the proved reserves (computed based on year-end costs and assuming continuation of existing economic conditions). Future income taxes are calculated by applying the appropriate year-end statutory federal and state income tax rate with consideration of future tax rates already legislated, to pre-tax future net cash flows, net of the tax basis of the properties involved and utilization of available tax carryforwards related to proved oil

and gas reserves.

Unconventional play. A term used in the oil and gas industry to refer to a play in which the targeted reservoirs generally fall into one of three categories: (1) tight sands, (2) coal beds or (3) shales. The reservoirs tend to cover large areas and lack the readily apparent traps, seals and discrete hydrocarbon-water boundaries that typically define conventional reservoirs. These

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reservoirs generally require fracture stimulation treatments or other special recovery processes in order to achieve economic flow rates.

Undeveloped reserves. Undeveloped reserves are reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required. Reserves on undrilled acreage are limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence exists that establishes reasonable certainty of economic producibility at greater distances. Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time. Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, or by other evidence using reliable technology establishing reasonable certainty.

Unproved properties. Properties with no proved reserves.

Working interest. An interest in an oil and gas lease that gives the owner of the interest the right to drill for and produce oil and gas on the leased acreage and requires the owner to pay a share of the costs of drilling and production operations.

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PART I

ITEMS 1 and 2. BUSINESS AND PROPERTIES

Cabot Oil & Gas Corporation is an independent oil and gas company engaged in the development, exploitation and exploration of oil and gas properties. Our assets are concentrated in areas with known hydrocarbon resources, which are conducive to multi-well, repeatable drilling programs. We operate in one segment, natural gas and oil development, exploitation, exploration and production, in the continental United States. We have offices located in Houston, Texas and Pittsburgh, Pennsylvania.

STRATEGY

Our objective is to enhance shareholder value over the long-term through consistent growth in production and reserves. We believe this is attainable, even in the current commodity price environment, by employing a combination of disciplined management and remaining focused on our core asset base, which offers a strategic advantage. Key components of our business strategy include:

**Disciplined Capital Spending Focused on Organic Projects.** We allocate our capital program based on economic projects that we expect will enable us to maximize our production and reserve growth. Our capital program is based on the expectation of being fully funded through operating cash flows, with any shortfalls funded by borrowings under our revolving credit facility. While we consider various growth opportunities, including strategic acquisitions, our primary focus is organic growth through drilling our core areas of operation where we believe we can exploit our extensive inventory of low-cost, repeatable drilling opportunities. The price we expect to receive for our production is a critical factor in the capital investments we make in order to develop our properties.

**Low Cost Structure.** Our operations are focused on select unconventional plays with significant resource potential that allow us to add and produce reserves at a low cost. We have developed sizable, contiguous acreage positions in our core operating areas and believe the concentration of our assets allows us to further reduce costs through economies of scale. We continue to optimize drilling and completion efficiencies through the use of multi-well pad drilling in our core operating areas, resulting in additional cost savings. Furthermore, since we operate in a limited number of geographic areas, we believe we can leverage our technical expertise in these areas to achieve further cost reductions through operational efficiencies. We also operate a majority of our properties, which allows us to more effectively manage all elements of our cost structure.

**Conservative Financial Position and Financial Flexibility.** We believe the prudent management of our balance sheet and the active management of commodity price risk allows us the financial flexibility to continue to provide consistent production and reserve growth over time, even in periods of depressed commodity prices. From time to time, we utilize derivative contracts to manage commodity price risk and to provide a level of cash flow predictability. In the event we experience a lower than anticipated commodity price environment, we believe that we have the flexibility to supplement the funding of our capital program with borrowings under our revolving credit facility and select asset sales.

**Pursue Strategic Marketing and Transportation Agreements to Maximize Cash Flows and Diversify Risk.** We continue to pursue opportunities to maximize our cash flows and diversify our market and customer risk by securing strategic long-term firm transportation and sales contracts in close proximity to our core area of operations.

2016 OUTLOOK

Our 2016 drilling program includes approximately \$325.0 million in capital expenditures and approximately \$150.0 million in expected contributions to our equity method investments. We expect to fund these expenditures with operating cash flows and borrowings under our revolving credit facility. See Note 4 of the Notes to the Consolidated Financial Statements for further details regarding our equity method investments in Constitution Pipeline Company, LLC (Constitution) and Meade Pipeline Co LLC (Meade).

We plan to drill approximately 30 gross wells (30.0 net) in 2016 compared to 142 gross wells (132.8 net) drilled in 2015. We allocate our planned capital program among our various operating areas based on return expectations, availability of services and human resources. We will continue to assess the natural gas and crude oil price environment along with our liquidity position and may increase or decrease our capital expenditures accordingly. As a result of sustained lower natural gas and crude oil prices expected during 2016, we reduced our budgeted capital expenditures compared to 2015. In addition, we plan to operate an average of approximately 1.3 rigs in 2016, a

decrease from an average of approximately 5.4 rigs in 2015. During 2015, we strategically curtailed production levels in the Marcellus Shale due to lower price realizations in the region, and we expect to continue to strategically curtail production during 2016 given the current commodity price environment.

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DESCRIPTION OF PROPERTIES

Our exploration, development and production operations are primarily concentrated in two unconventional plays—the Marcellus Shale in northeast Pennsylvania and the Eagle Ford Shale in south Texas. We also have operations in various other conventional and unconventional plays throughout the continental United States.

Marcellus Shale

Our Marcellus Shale properties represent our largest operating and growth area in terms of reserves, production and capital investment. Our properties are principally located in Susquehanna County, Pennsylvania, where we currently hold approximately 200,000 net acres in the dry gas window of the play. Our 2015 net production in the Marcellus Shale was 540.8 Bcfe, representing approximately 90% of our total equivalent production for the year. As of December 31, 2015, we had a total of 548.1 net wells in the Marcellus Shale, of which approximately 99% are operated by us.

During 2015, we invested \$457.0 million in the Marcellus Shale and drilled or participated in drilling 82.5 net wells and turned in line 64.0 net wells. As of December 31, 2015, we had 66.8 net wells that were either in the completion stage or waiting on completion or connection to a pipeline. We exited 2015 with two drilling rigs operating in the play and plan to exit 2016 with one rig operating.

Eagle Ford Shale

Our properties in the Eagle Ford Shale are principally located in Atascosa, Frio and La Salle Counties, Texas, where we hold approximately 85,500 net acres in the oil window of the play. In 2015, our net crude oil/condensate/NGL and natural gas production from the Eagle Ford Shale was 5,797 Mbbbl and 1.8 Bcf, respectively, or 36.6 Bcfe, representing approximately 6% of our total equivalent production. As of December 31, 2015, we had a total of 221.2 net wells in the Eagle Ford, of which approximately 85% are operated by us.

During 2015, we invested \$303.4 million in the Eagle Ford Shale and drilled or participated in drilling 49.3 net wells and turned in line 44.3 net wells. As of December 31, 2015, we had 23.0 net wells that were waiting on completion. We exited 2015 with one drilling rig operating in the play and plan to exit 2016 with one rig operating.

Other Oil and Gas Properties

In addition to our core unconventional resource plays, we also operate or participate in other conventional and unconventional plays throughout the continental United States, including the Devonian Shale, Big Lime, Weir and Berea in West Virginia; the Cotton Valley, Haynesville, Bossier, and James Lime formations in east Texas; and the Utica Shale in Pennsylvania.

Other Properties

Ancillary to our exploration, development and production operations, we operate a number of gas gathering and transmission pipeline systems, made up of approximately 3,100 miles of pipeline with interconnects to three interstate transmission systems, four local distribution companies and numerous end users as of the end of 2015. The majority of our pipeline infrastructure is located in West Virginia and is regulated by the Federal Energy Regulatory Commission (FERC) for interstate transportation service and the West Virginia Public Service Commission (WVPSC) for intrastate transportation service. As such, the transportation rates and terms of service of our pipeline subsidiary, Cranberry Pipeline Corporation, are subject to the rules and regulations of the FERC and the WVPSC. Our natural gas gathering and transmission pipeline systems in West Virginia enable us to connect new wells quickly and transport natural gas from the wellhead directly to interstate pipelines, local distribution companies and industrial end users. Control of our gathering and transmission pipeline systems also enables us to purchase, transport and sell natural gas produced by third parties. In addition, we can engage in development drilling without relying upon third parties to transport our natural gas and incur only the incremental costs of pipeline and compressor additions to our system. We also have two natural gas storage fields located in West Virginia with a combined working capacity of approximately 4 Bcf. We use these storage fields to take advantage of the seasonal variations in the demand for natural gas typically associated with winter natural gas sales, while maintaining production at a nearly constant rate throughout the year. The pipeline systems and storage fields are fully integrated with our operations in West Virginia.

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### ACQUISITIONS

In December 2014, we completed the acquisition of certain proved and unproved oil and gas properties located in the Eagle Ford Shale in south Texas for approximately \$30.5 million. Total cash consideration paid was approximately \$29.9 million, which reflects the impact of customary purchase price adjustments and acquisition costs.

In October 2014, we purchased certain proved and unproved oil and gas properties located in the Eagle Ford Shale in south Texas for approximately \$210.0 million. Total cash consideration paid at closing was approximately \$185.2 million, which reflects the impact of customary purchase price adjustments and acquisition costs. In April 2015, we completed the acquisition of the remaining oil and gas properties for which the seller was unable to obtain consents at closing for approximately \$16.0 million.

### DIVESTITURES

In October 2014, we sold certain proved and unproved oil and gas properties in east Texas to a third party for approximately \$44.3 million and recognized a \$19.9 million gain on sale of assets.

In December 2013, we sold certain proved and unproved oil and gas properties located in the Oklahoma and Texas panhandles to Chaparral Energy, L.L.C. for approximately \$160.0 million and recognized a \$19.4 million gain on sale of assets. We also sold certain proved and unproved oil and gas properties located in Oklahoma, Texas and Kansas to a third party for approximately \$123.4 million and recognized a \$17.5 million loss on sale of assets.

In 2013, we sold various other proved and unproved oil and gas properties for approximately \$44.3 million and recognized an aggregate net gain of \$19.5 million.

In 2012, we sold certain unproved oil and gas properties and other assets for approximately \$169.3 million and recognized an aggregate net gain of \$50.6 million.

In 2011, we sold certain proved and unproved oil and gas properties and other assets for approximately \$405.5 million and recognized an aggregate net gain of \$63.4 million.

### MARKETING

Substantially all of our natural gas is sold at market sensitive prices under both long-term and short-term sales contracts. The principal markets for our natural gas are in the northeastern United States and the industrialized Gulf Coast area. In the northeastern United States, we sell natural gas to industrial customers, local distribution companies and gas marketers. In the Gulf Coast area, we sell natural gas to intrastate pipelines, natural gas processors and marketing companies. Properties in the Gulf Coast area are connected to various processing plants in Texas and Louisiana with multiple interstate and intrastate deliveries, affording us access to multiple markets.

We also incur transportation and gathering expenses to move our natural gas production from the wellhead to our principal markets in the United States. The majority of our natural gas production is transported on third-party gathering systems and interstate pipelines where we have long-term contractual capacity arrangements or use purchaser-owned capacity under both long-term and short-term sales contracts.

To date, we have not experienced significant difficulty in transporting or marketing our natural gas production as it becomes available; however, there is no assurance that we will always be able to transport and market all of our production.

### RISK MANAGEMENT

From time to time, we use derivative financial instruments to manage price risk associated with our natural gas and crude oil production. While there are many different types of derivatives available, we generally utilize collar and swap agreements designed to manage price risk more effectively. The collar arrangements are a combination of put and call options used to establish floor and ceiling prices for a fixed volume of natural gas or crude oil production during a certain time period. They provide for payments to counterparties if the index price exceeds the ceiling and payments from the counterparties if the index price falls below the floor. The swap agreements call for payments to, or receipts from, counterparties based on whether the index price for the period is greater or less than the fixed price established for the particular period under the swap agreement.

During 2015, natural gas collars with floor prices ranging from \$3.86 to \$3.91 per Mcf and ceiling prices ranging from \$4.27 to \$4.43 per Mcf covered 70.9 Bcf, or 13%, of our natural gas production at a weighted-average price of \$3.87 per Mcf. Natural gas swaps covered 107.3 Bcf, or 19%, of our natural gas production at a weighted-average price of \$3.79 per Mcf.



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As of December 31, 2015, we did not have any outstanding commodity derivatives. In January 2016, we entered into natural gas swaps covering 52.0 Bcf of our expected natural gas production from April 2016 through October 2016 at a weighted-average price of \$2.51 per Mcf. A significant portion of our expected natural gas and crude oil production for 2016 and beyond is currently unhedged and directly exposed to the volatility in natural gas and crude oil market prices, whether favorable or unfavorable. We will continue to evaluate the benefit of using derivatives in the future. Please read "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures about Market Risk" for further discussion related to our use of derivatives.

**RESERVES**

The following table presents our estimated proved reserves for the periods indicated:

	December 31,		
	2015	2014	2013
Natural Gas (Bcf)			
Proved developed reserves	4,676	4,339	3,147
Proved undeveloped reserves <sup>(1)</sup>	3,180	2,743	2,148
	7,856	7,082	5,295
Crude Oil & NGLs (Mbbbl) <sup>(2)</sup>			
Proved developed reserves	25,586	27,221	13,652
Proved undeveloped reserves <sup>(1)</sup>	30,144	25,915	12,886
	55,730	53,136	26,538
Natural gas equivalent (Bcfe) <sup>(3)</sup>	8,190	7,401	5,454
Reserve life index (in years) <sup>(4)</sup>	13.6	13.9	13.2

(1) Proved undeveloped reserves for 2015, 2014 and 2013 include reserves drilled but awaiting completion of 937.4 Bcfe, 501.1 Bcfe and 239.1 Bcfe, respectively.

(2) NGL reserves were less than 1.0% of our total proved equivalent reserves for 2015, 2014 and 2013, and 16.1%, 13.5% and 12.3% of our proved crude oil and NGL reserves for 2015, 2014 and 2013, respectively.

(3) Natural gas equivalents are determined using a ratio of 6 Mcf of natural gas to 1 Bbl of crude oil, condensate or NGLs.

(4) Reserve life index is equal to year-end proved reserves divided by annual production for the years ended December 31, 2015, 2014 and 2013, respectively.

Our proved reserves totaled approximately 8,190 Bcfe at December 31, 2015, of which 96% were natural gas. This reserve level was up by 11% from 7,401 Bcfe at December 31, 2014. In 2015, we added 965.4 Bcfe of proved reserves through extensions, discoveries and other additions, primarily due to the positive results from our drilling program in the Dimock field in northeast Pennsylvania. We also had a net upward revision of 425.6 Bcfe, which was primarily due to an upward performance revision of 702.9 Bcfe associated with positive drilling results in our Dimock field in northeast Pennsylvania, partially offset by a downward revision of 277.3 Bcfe associated with lower commodity prices. In 2015, we produced 602.5 Bcfe.

Our reserves are sensitive to natural gas and crude oil prices and their effect on the economic productive life of producing properties. Our reserves are based on the 12-month average crude oil and natural gas index prices, calculated as the unweighted arithmetic average for the first day of the month price for each month during the year. Increases in commodity prices may result in a longer economic productive life of a property or result in more economically viable proved undeveloped reserves to be recognized. Decreases in prices may result in negative impacts of this nature.

For additional information regarding estimates of proved reserves, the audit of such estimates by Miller and Lents, Ltd. (Miller and Lents) and other information about our reserves, including the risks inherent in our estimates of proved reserves, see the Supplemental Oil and Gas Information to the Consolidated Financial Statements included in Item 8 and "Risk Factors-Our proved reserves are estimates. Any material inaccuracies in our reserve estimates or underlying assumptions could cause the quantities and net present value of our reserves to be overstated or understated"

in Item 1A.

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### Technologies Used In Reserves Estimates

We utilize various traditional methods to estimate our crude oil and natural gas reserves, including decline curve extrapolations, material balance calculations, volumetric calculations and analogies, and in some cases a combination of these methods. In addition, at times we may use seismic interpretations to confirm continuity of a formation in combination with traditional technologies; however, seismic interpretations are not used in the volumetric computation.

### Internal Control

Our Vice President, Engineering and Technology is the technical person responsible for our internal reserves estimation process and provides oversight of our corporate reservoir engineering department, which consists of three engineers, and the annual audit of our year-end reserves by Miller and Lents. He has a Bachelor of Science degree in Chemical Engineering, specializing in petroleum engineering, and over 33 years of industry experience with positions of increasing responsibility in operations, engineering and evaluations. He has worked in the area of reserves and reservoir engineering for 24 years and is a member of the Society of Petroleum Engineers.

Our reserves estimation process is coordinated by our corporate reservoir engineering department. Reserve information, including models and other technical data, are stored on secured databases on our network. Certain non-technical inputs used in the reserves estimation process, including commodity prices, production and development costs and ownership percentages, are obtained by other departments and are subject to testing as part of our annual internal control process. We also engage Miller and Lents, independent petroleum engineers, to perform an independent audit of our estimated proved reserves. Upon completion of the process, the estimated reserves are presented to senior management.

Miller and Lents made independent estimates for 100% of our proved reserves estimates and concluded, in their judgment, we have an effective system for gathering data and documenting information required to estimate our proved reserves and project our future revenues. Further, Miller and Lents has concluded (1) the reserves estimation methods employed by us were appropriate, and our classification of such reserves was appropriate to the relevant SEC reserve definitions, (2) our reserves estimation processes were comprehensive and of sufficient depth, (3) the data upon which we relied were adequate and of sufficient quality, and (4) the results of our estimates and projections are, in the aggregate, reasonable. A copy of the audit letter by Miller and Lents dated January 26, 2016, has been filed as an exhibit to this Form 10-K.

### Qualifications of Third Party Engineers

The technical person primarily responsible for the audit of our reserves estimates at Miller and Lents meets the requirements regarding qualifications, independence, objectivity, and confidentiality set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers. Miller and Lents is an independent firm of petroleum engineers, geologists, geophysicists, and petro physicists; they do not own an interest in our properties and are not employed on a contingent fee basis.

### Proved Undeveloped Reserves

At December 31, 2015 we had 3,361.2 Bcfe of proved undeveloped (PUD) reserves associated with future development costs of \$1.6 billion, which represents an increase of 462.9 Bcfe compared to December 31, 2014. We expect to develop approximately 60% to 70% of our PUD reserves over the next three years, of which 937.4 Bcfe have been drilled and are waiting on completion. Future development plans are reflective of the significant decrease in commodity prices and have been established based on an expectation of available cash flows from operations and availability under our revolving credit facility. As of December 31, 2015, all PUD reserves are expected to be developed within five years of initial disclosure of these reserves.

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The following table is a reconciliation of the change in our PUD reserves (Bcfe):

	Year Ended December 31, 2015
Balance at beginning of period	2,898.3
Transfers to proved developed	(662.9 )
Additions	685.1
Revision of prior estimates	440.2
Purchases of reserves in place	0.5
Balance at end of period	3,361.2

Changes in PUD reserves that occurred during the year were due to:

transfer of 662.9 Bcfe from PUD to proved developed reserves based on total capital expenditures of \$459.6 million during 2015;

new PUD reserve additions of 685.1 Bcfe primarily in the Dimock field in northeast Pennsylvania; and positive PUD reserve revisions of 440.2 Bcfe resulting from positive performance revisions of 453.8 Bcfe associated with the drilling of longer lateral wells and completing more frac stages in our Dimock field in northeast Pennsylvania, partially offset by negative price revisions of 13.6 Bcfe.

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## PRODUCTION, SALES PRICE AND PRODUCTION COSTS

The following table presents historical information about our production volumes for natural gas and oil (including NGLs), average natural gas and crude oil sales prices, and average production costs per equivalent, including our Dimock field located in northeast Pennsylvania, which represents more than 15% of our total proved reserves.

	Year Ended December 31,		
	2015	2014	2013
Production Volumes			
Natural gas (Bcf)			
Dimock field	540.8	479.8	356.5
Total	566.0	508.0	394.2
Oil (Mbbbl) <sup>(1)</sup>			
Total	6,096	3,961	3,221
Equivalents (Bcfe)			
Dimock field	540.8	479.8	356.5
Total	602.5	531.8	413.6
Natural Gas Average Sales Price (\$/Mcf)			
Dimock field	\$1.82	\$3.42	\$3.48
Total (excluding realized impact of derivative settlements)	\$1.81	\$3.41	\$3.43
Total (including realized impact of derivative settlements)	\$2.15	\$3.28	\$3.56
Oil Average Sales Price (\$/Bbl)			
Total (excluding realized impact of derivative settlements)	\$45.72	\$87.65	\$99.65
Total (including realized impact of derivative settlements)	\$45.72	\$88.50	\$101.13
Average Production Costs (\$/Mcfe)			
Dimock field	\$0.04	\$0.07	\$0.06
Total	\$0.18	\$0.22	\$0.27

(1) Includes NGLs which represent less than 1.0% of our equivalent production for all years presented and 11.0%, 9.4%, and 10.5% of our oil production for the years ended December 31, 2015, 2014 and 2013, respectively.

## ACREAGE

Our interest in both developed and undeveloped properties is primarily in the form of leasehold interests held under customary mineral leases. These leases provide us the right to develop oil and/or natural gas on the properties. Their primary terms range in length from approximately three to 10 years. These properties are held for longer periods if production is established.

The following table summarizes our gross and net developed and undeveloped leasehold and mineral fee acreage at December 31, 2015.

	Developed		Undeveloped		Total	
	Gross	Net	Gross	Net	Gross	Net
Leasehold acreage	1,029,017	908,552	500,867	354,996	1,529,884	1,263,548
Mineral fee acreage	133,623	112,570	61,744	52,242	195,367	164,812
Total	1,162,640	1,021,122	562,611	407,238	1,725,251	1,428,360

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## Total Net Undeveloped Acreage Expiration

In the event that production is not established or we take no action to extend or renew the terms of our leases, our net undeveloped acreage that will expire over the next three years as of December 31, 2015 is 66,586, 86,252 and 38,501 for the years ending December 31, 2016, 2017 and 2018, respectively.

We expect to retain substantially all of our expiring acreage either through drilling activities, renewal of the expiring leases or through the exercise of extension options. As of December 31, 2015, approximately 32% of our expiring acreage disclosed above is located in our core areas of operation where we currently expect to continue development activities and/or extend the lease terms.

## WELL SUMMARY

The following table presents our ownership in productive natural gas and crude oil wells at December 31, 2015. This summary includes natural gas and crude oil wells in which we have a working interest.

	Gross	Net
Natural gas	4,370	3,936.1
Crude oil	313	258.8
Total <sup>(1)</sup>	4,683	4,194.9

(1) Total percentage of gross operated wells is 91.3%.

## DRILLING ACTIVITY

We drilled wells or participated in the drilling of wells as indicated in the table below.

	Year Ended December 31,					
	2015		2014		2013	
	Gross	Net	Gross	Net	Gross	Net
Development Wells						
Productive	141	131.8	199	175.5	169	145.4
Dry	—	—	—	—	2	1.3
Exploratory Wells						
Productive	1	1.0	—	—	9	6.8
Dry	—	—	1	1.0	1	—
Total	142	132.8	200	176.5	181	153.5
Acquired Wells	1	1.0	26	23.7	—	—

At December 31, 2015, 3 gross (3.0 net) wells were in the process of being drilled.

## OTHER BUSINESS MATTERS

## Title to Properties

We believe that we have satisfactory title to all of our producing properties in accordance with generally accepted industry standards. Individual properties may be subject to burdens such as royalty, overriding royalty, carried, net profits, working and other outstanding interests customary in the industry. In addition, interests may be subject to obligations or duties under applicable laws or burdens such as production payments, ordinary course liens incidental to operating agreements and for current taxes or development obligations under oil and gas leases. As is customary in the industry in the case of undeveloped properties, preliminary investigations of record title are made at the time of lease acquisition. Complete investigations are made prior to the consummation of an acquisition of producing properties and before commencement of drilling operations on undeveloped properties.

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### Competition

The oil and gas industry is highly competitive and we experience strong competition in our primary producing areas. We primarily compete with integrated, independent and other energy companies for the sale and transportation of our oil and natural gas production to marketing companies and end users. Furthermore, the oil and gas industry competes with other energy industries that supply fuel and power to industrial, commercial and residential consumers. Many of these competitors have greater financial, technical and personnel resources. The effect of these competitive factors cannot be predicted.

Price, contract terms, availability of rigs and related equipment and quality of service, including pipeline connection times and distribution efficiencies affect competition. We believe that our extensive acreage position and our access to gathering and pipeline infrastructure in Pennsylvania, along with our expected activity level and the related services and equipment that we have secured for the upcoming years, enhance our competitive position over other producers who do not have similar systems or services in place.

### Major Customers

During the years ended December 31, 2015, 2014 and 2013, two customers accounted for approximately 16% and 14%, two customers accounted for approximately 14% and 10% and four customers accounted for approximately 21%, 16%, 14% and 11%, respectively, of our total sales. We do not believe that the loss of any of these customers would have a material adverse effect on us because alternative customers are readily available.

### Seasonality

Demand for natural gas has historically been seasonal, with peak demand and typically higher prices occurring during the colder winter months.

### Regulation of Oil and Natural Gas Exploration and Production

Exploration and production operations are subject to various types of regulation at the federal, state and local levels. This regulation includes requiring permits to drill wells, maintaining bonding requirements to drill or operate wells, and regulating the location of wells, the method of drilling and casing wells, the surface use and restoration of properties on which wells are drilled, and the plugging and abandoning of wells. Our operations are also subject to various conservation laws and regulations. These include the regulation of the size of drilling and spacing units or proration units, the density of wells that may be drilled in a given field and the unitization or pooling of oil and natural gas properties. Some states allow the forced pooling or integration of tracts to facilitate exploration while other states rely on voluntary pooling of lands and leases. In addition, state conservation laws establish maximum rates of production from oil and natural gas wells, generally prohibiting the venting or flaring of natural gas and imposing certain requirements regarding the ratability of production. The effect of these regulations is to limit the amounts of oil and natural gas we can produce from our wells, and to limit the number of wells or the locations where we can drill. Because these statutes, rules and regulations undergo constant review and often are amended, expanded and reinterpreted, we are unable to predict the future cost or impact of regulatory compliance. The regulatory burden on the oil and gas industry increases its cost of doing business and, consequently, affects its profitability. We do not believe, however, we are affected differently by these regulations than others in the industry.

### Natural Gas Marketing, Gathering and Transportation

Federal legislation and regulatory controls have historically affected the price of the natural gas we produce and the manner in which our production is transported and marketed. Under the Natural Gas Act of 1938 (NGA), the Natural Gas Policy Act of 1978 (NGPA), and the regulations promulgated under those statutes, the FERC regulates the interstate sale for resale of natural gas and the transportation of natural gas in interstate commerce, although facilities used in the production or gathering of natural gas in interstate commerce are generally exempted from FERC jurisdiction. Effective beginning in January 1993, the Natural Gas Wellhead Decontrol Act deregulated natural gas prices for all "first sales" of natural gas, which definition covers all sales of our own production. In addition, as part of the broad industry restructuring initiatives described below, the FERC granted to all producers such as us a "blanket certificate of public convenience and necessity" authorizing the sale of natural gas for resale without further FERC approvals. As a result of this policy, all of our produced natural gas is sold at market prices, subject to the terms of any private contracts that may be in effect. In addition, under the provisions of the Energy Policy Act of 2005 (2005 Act), the NGA was amended to prohibit any forms of market manipulation in connection with the purchase or sale of

natural gas. Pursuant to the 2005 Act, the FERC established regulations intended to increase natural gas pricing transparency by, among other things, requiring market participants to report their gas sales transactions annually to the FERC. The 2005 Act also significantly increased the penalties for violations of the NGA and the FERC's regulations up to \$1,000,000 per day per violation. In 2010, the FERC issued Penalty Guidelines for the determination of civil penalties and procedure under its enforcement program.

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Some of our pipelines are subject to regulation by the FERC. We own an intrastate natural gas pipeline through our wholly owned subsidiary, Cranberry Pipeline Corporation, that provides interstate transportation and storage services pursuant to Section 311 of the NGPA, as well as intrastate transportation and storage services that are regulated by the West Virginia Public Service Commission. For qualified intrastate pipelines, FERC allows interstate transportation service “on behalf of” interstate pipelines or local distribution companies served by interstate pipelines without subjecting the intrastate pipeline to the more comprehensive NGA jurisdiction of the FERC. We provide Section 311 service in accordance with a publicly available Statement of Operating Conditions filed with FERC under rates that are subject to approval by the FERC. On December 18, 2012, we filed with the FERC a petition for rate approval of our existing interstate transportation rates and a proposed decrease of our storage rates. By Letter Order issued May 15, 2013, the FERC approved the rate petition.

In 2012 we executed a precedent agreement with Constitution, at the time a wholly owned subsidiary of Williams Partners L.P., for 500,000 Dth per day of pipeline capacity and acquired a 25% equity interest in a pipeline to be constructed in the states of New York and Pennsylvania. On June 12, 2013, the project sponsors filed an application with FERC requesting a certificate of public convenience and necessity to construct and operate the 124 mile pipeline project that, once completed, will provide 650,000 Dth per day of pipeline capacity. On December 2, 2014, the FERC issued a certificate of public convenience and necessity, authorizing the construction and operation of the pipeline project. While FERC has issued the certificate, the project scope or timeline for construction and eventual in-service date may still be impacted by the public regulatory permitting process. When placed into service, the project pipeline will be an interstate pipeline subject to full regulation by FERC under the NGA.

Additionally, in 2014 we executed a precedent agreement with Transcontinental Gas Pipe Line Company, LLC (Transco) for 850,000 Dth per day of pipeline capacity and acquired a 20% equity interest in Meade, which was formed to construct a pipeline with Transco from Susquehanna County, Pennsylvania to an interconnect with Transco's mainline in Lancaster County, Pennsylvania. The proposed pipeline will be an interstate pipeline subject to full regulation by the FERC under the NGA. Transco filed an application for a certificate of public convenience and necessity with the FERC on March 31, 2015 and is currently seeking various federal and state approvals authorizing construction and operation of the pipeline.

Our production and gathering facilities are not subject to jurisdiction of the FERC; however, our natural gas sales prices nevertheless continue to be affected by intrastate and interstate gas transportation regulation because the cost of transporting the natural gas once sold to the consuming market is a factor in the prices we receive. Beginning with Order No. 436 in 1985 and continuing through Order No. 636 in 1992 and Order No. 637 in 2000, the FERC has adopted a series of rulemakings that have significantly altered the transportation and marketing of natural gas. These changes were intended by the FERC to foster competition by, among other things, requiring interstate pipeline companies to separate their wholesale gas marketing business from their gas transportation business, and by increasing the transparency of pricing for pipeline services. The FERC has also established regulations governing the relationship of pipelines with their marketing affiliates, which essentially require that designated employees function independently of each other, and that certain information not be shared. The FERC has also implemented standards relating to the use of electronic data exchange by the pipelines to make transportation information available on a timely basis and to enable transactions to occur on a purely electronic basis.

In light of these statutory and regulatory changes, most pipelines have divested their natural gas sales functions to marketing affiliates, which operate separately from the transporter and in direct competition with all other merchants. Most pipelines have also implemented the large scale divestiture of their natural gas gathering facilities to affiliated or non affiliated companies. Interstate pipelines are required to provide unbundled, open and nondiscriminatory transportation and transportation related services to producers, gas marketing companies, local distribution companies, industrial end users and other customers seeking such services. As a result of FERC requiring natural gas pipeline companies to separate marketing and transportation services, sellers and buyers of natural gas have gained direct access to pipeline transportation services, and are better able to conduct business with a larger number of counterparties. We believe these changes generally have improved our access to markets while, at the same time, substantially increasing competition in the natural gas marketplace. We cannot predict what new or different regulations the FERC and other regulatory agencies may adopt, or what effect subsequent regulations may have on

our activities. Similarly, we cannot predict what proposals, if any, that affect the oil and natural gas industry might actually be enacted by Congress or the various state legislatures and what effect, if any, such proposals might have on us. Further, we cannot predict whether the recent trend toward federal deregulation of the natural gas industry will continue or what effect future policies will have on our sale of gas.

#### Federal Regulation of Swap Transactions

We use derivative financial instruments such as collar and swap agreements to attempt to more effectively manage price risk due to the impact of changes in commodity prices on our operating results and cash flows. Following enactment of the Dodd Frank Wall Street Reform and Consumer Protection Act (Dodd Frank Act) in July 2010, the Commodity Futures Trading Commission (CFTC) has promulgated regulations to implement statutory requirements for swap transactions,



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including certain options. The CFTC regulations are intended to implement a regulated market in which most swaps are executed on registered exchanges or swap execution facilities and cleared through central counterparties. In addition, all swap market participants are subject to new reporting and recordkeeping requirements related to their swap transactions. We believe that our use of swaps to hedge against commodity exposure qualifies us as an end user, exempting us from the requirement to centrally clear our swaps. Nevertheless, the changes to the swap market as a result of Dodd Frank implementation could significantly increase the cost of entering into new swaps or maintaining existing swaps, materially alter the terms of new or existing swap transactions and/or reduce the availability of new or existing swaps. If we reduce our use of swaps as a result of the Dodd Frank Act and regulations, our results of operations may become more volatile and our cash flows may be less predictable.

### Federal Regulation of Petroleum

Our sales of crude oil and NGLs are not regulated and are made at market prices. However, the price received from the sale of these products is affected by the cost of transporting the products to market. Much of that transportation is through interstate common carrier pipelines, which are regulated by the FERC under the Interstate Commerce Act (ICA). FERC requires that pipelines regulated under the ICA file tariffs setting forth the rates and terms and conditions of service and that such service not be unduly discriminatory or preferential.

Effective January 1, 1995, the FERC implemented regulations generally grandfathering all previously approved interstate transportation rates and establishing an indexing system for those rates by which adjustments are made annually based on the rate of inflation, subject to certain conditions and limitations. These regulations may increase or decrease the cost of transporting crude oil and NGLs by interstate pipeline, although the annual adjustments may result in decreased rates in a given year. Every five years, the FERC must examine the relationship between the annual change in the applicable index and the actual cost changes experienced in the oil pipeline industry. In December 2015, to implement this required five year re determination, the FERC established an upward adjustment in the index to track oil pipeline cost changes and determined that the Producer Price Index for Finished Goods plus 1.23% should be the oil pricing index for the five year period beginning July 1, 2016. The result of indexing is a “ceiling rate” for each rate, which is the maximum at which the pipeline may set its interstate transportation rates. A pipeline may also file cost of service based rates if rate indexing will be insufficient to allow the pipeline to recover its costs. Rates are subject to challenge by protest when they are filed or changed. For indexed rates, complaints alleging that the rates are unjust and unreasonable may only be pursued if the complainant can show that a substantial change has occurred since the enactment of Energy Policy Act of 1992 in either the economic circumstances of the pipeline or in the nature of the services provided, that were a basis for the rate. There is no such limitation on complaints alleging that the pipeline’s rates or terms and conditions of service are unduly discriminatory or preferential. We are unable to predict with certainty the effect upon us of these periodic reviews by the FERC of the pipeline index.

### Pipeline Safety Regulation

Certain of our pipeline systems and storage fields in West Virginia are regulated for safety compliance by the U.S. Department of Transportation (DOT) and the West Virginia Public Service Commission. In 2002, Congress enacted the Pipeline Safety Improvement Act of 2002 (2002 Act), which contains a number of provisions intended to increase pipeline operating safety. The DOT’s final regulations implementing the act became effective February 2004. Among other provisions, the regulations require that pipeline operators implement a pipeline integrity management program that must at a minimum include an inspection of gas transmission and non rural gathering pipeline facilities in certain locations within ten years, and at least every seven years thereafter. On March 15, 2006, the DOT revised these regulations to define more clearly the categories of gathering facilities subject to DOT regulation, establish new safety rules for certain gathering lines in rural areas, revise the current regulations applicable to safety and inspection of gathering lines in non rural areas, and adopt new compliance deadlines. The initial baseline assessments under our integrity management program for our pipeline system in West Virginia were completed in January 2013. Pipeline integrity was confirmed at each of the targeted assessment sites. A new seven year reassessment cycle began during 2013.

In December 2006, Congress enacted the Pipeline Inspection, Protection, Enforcement and Safety Act of 2006 (PIPES Act), which reauthorized the programs adopted under the 2002 Act, proposed enhancements for state programs to reduce excavation damage to pipelines, established increased federal enforcement of one call excavation programs, and

established a new program for review of pipeline security plans and critical facility inspections. Pursuant to the PIPES Act, the DOT issued regulations on May 5, 2011 that would, with limited exceptions, subject all low stress hazardous liquids pipelines, regardless of location or size, to the DOT's pipeline safety regulations.

In December 2011, Congress passed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011. The act increased the maximum civil penalties for pipeline safety administrative enforcement actions; required the DOT to issue regulations requiring the use of automatic or remote controlled shutoff valves on new and rebuilt pipelines and to study and

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report on the expansion of integrity management requirements, the sufficiency of existing gathering line regulations to ensure safety, and the use of leak detection systems by hazardous liquid pipelines; required pipeline operators to verify their records on maximum allowable operating pressure; and imposed new emergency response and incident notification requirements. The act reflects many of the areas of possible regulatory change described in an Advance Notice of Proposed Rulemaking issued by the DOT on August 18, 2011, including revisions to DOT's civil penalty authority and the requirement that pipelines verify maximum allowable operating pressure.

On December 3, 2009, the DOT adopted a regulation requiring gas and hazardous liquid pipelines that use supervisory control and data acquisition (SCADA) systems and have at least one controller and control room to develop written control room management procedures by August 1, 2011 and implement the procedures by February 1, 2013. The DOT expedited the program implementation deadline to October 1, 2011 for most of the requirements, except for certain provisions regarding adequate information and alarm management, which had a program implementation deadline of August 1, 2012. We developed and implemented the required control room management procedures in accordance with the deadlines. Effective January 1, 2011, natural gas and hazardous liquid pipelines also became subject to updated reporting requirements with DOT.

The cost of compliance with DOT's integrity management rules depends on integrity testing and the repairs found to be necessary by such testing. Changes to the amount of pipe subject to integrity management, whether by expansion of the definition of the type of areas subject to integrity management procedures or of the applicability of such procedures outside of those defined areas can have a significant impact on costs we may incur to ensure compliance. On October 1, 2015, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a Notice of Proposed Rulemaking (NPR) that specifies anomaly and repair timeframes, which currently are left entirely to the operator's discretion. The NPR proposes to require that certain repairs be made immediately. Specifically, dents located on the bottom of the pipeline that have any indication of metal loss, cracking or a stress riser, as well as situations in which the pipeline's calculated burst pressure is less than 1.1 times the maximum operating pressure at the location of an anomaly would both be categorized as immediate repair conditions. The NPR also proposes to include a general requirement for performing all other repairs within a reasonable time. In the future other laws and regulations may be enacted or adopted or existing laws may be reinterpreted in a manner that could impact our compliance costs. In addition, we may be subject to DOT's enforcement actions and penalties for failure to comply with pipeline regulations.

### Environmental and Safety Regulations

**General.** Our operations are subject to extensive federal, state and local laws and regulations relating to the generation, storage, handling, emission, transportation and discharge of materials into the environment. Permits are required for the operation of our various facilities. These permits can be revoked, modified or renewed by issuing authorities. Governmental authorities enforce compliance with their regulations through fines, injunctions or both. Government regulations can increase the cost of planning, designing, installing and operating, and can affect the timing of installing and operating, oil and natural gas facilities. Although we believe that compliance with environmental regulations will not have a material adverse effect on us, risks of substantial costs and liabilities related to environmental compliance issues are part of oil and natural gas production operations. No assurance can be given that significant costs and liabilities will not be incurred. Also, it is possible that other developments, such as stricter environmental laws and regulations, and claims for damages to property or persons resulting from oil and natural gas production could result in substantial costs and liabilities to us.

U.S. laws and regulations applicable to our operations include those controlling the discharge of materials into the environment, requiring removal and cleanup of materials that may harm the environment or otherwise relating to the protection of the environment.

**Solid and Hazardous Waste.** We currently own or lease, and have in the past owned or leased, numerous properties that were used for the production of oil and natural gas for many years. Although operating and disposal practices that were standard in the industry at the time may have been utilized, it is possible that hydrocarbons or other wastes may have been disposed of or released on or under the properties currently owned or leased by us. State and federal laws applicable to oil and gas wastes and properties have become stricter over time. Under these increasingly stringent requirements, we could be required to remove or remediate previously disposed wastes (including wastes disposed or

released by prior owners and operators) or clean up property contamination (including groundwater contamination by prior owners or operators) or to perform plugging operations to prevent future contamination.

We generate some hazardous wastes that are already subject to the Federal Resource Conservation and Recovery Act (RCRA) and comparable state statutes. The Environmental Protection Agency (EPA) has limited the disposal options for certain hazardous wastes. It is possible that certain wastes currently exempt from treatment as hazardous wastes may in the future be

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designated as hazardous wastes under RCRA or other applicable statutes. We could, therefore, be subject to more rigorous and costly disposal requirements in the future than we encounter today.

**Superfund.** The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as the “Superfund” law, and comparable state laws and regulations impose liability, without regard to fault or the legality of the original conduct, on certain persons with respect to the release of hazardous substances into the environment. These persons include the current and past owners and operators of a site where the release occurred and any party that treated or disposed of or arranged for the treatment or disposal of hazardous substances found at a site. Under CERCLA, such persons may be subject to joint and several strict liability for the costs of cleaning up the hazardous substances that have been released into the environment, for damages to natural resources and for the costs of certain health studies. CERCLA also authorizes the EPA, and in some cases, private parties, to undertake actions to clean up such hazardous substances, or to recover the costs of such actions from the responsible parties. In addition, it is not uncommon for neighboring landowners and other third parties to file claims for personal injury and property damage allegedly caused by the hazardous substances released into the environment. In the course of business, we have used materials and generated wastes and will continue to use materials and generate wastes that may fall within CERCLA’s definition of hazardous substances. We may also be an owner or operator of sites on which hazardous substances have been released. As a result, we may be responsible under CERCLA for all or part of the costs to clean up sites where such substances have been released.

**Oil Pollution Act.** The Federal Oil Pollution Act of 1990 (OPA) and resulting regulations impose a variety of obligations on responsible parties related to the prevention of oil spills and liability for damages resulting from such spills in waters of the United States. The term “waters of the United States” has been broadly defined to include inland water bodies, including wetlands and intermittent streams. The OPA assigns joint and several strict liability to each responsible party for oil removal costs and a variety of public and private damages. The OPA also imposes ongoing requirements on operators, including the preparation of oil spill response plans and proof of financial responsibility to cover environmental cleanup and restoration costs that could be incurred in connection with an oil spill. We believe that we substantially comply with the Oil Pollution Act and related federal regulations.

**Endangered Species Act.** The Endangered Species Act (ESA) restricts activities that may affect endangered or threatened species or their habitats. While some of our operations may be located in areas that are designated as habitats for endangered or threatened species, we believe that we are in substantial compliance with the ESA, nor are we aware of any proposed listings that will affect our operations. However, the designation of previously unidentified endangered or threatened species could cause us to incur additional costs or become subject to operating restrictions or bans in the affected states.

**Clean Water Act.** The Federal Water Pollution Control Act (Clean Water Act) and resulting regulations, which are primarily implemented through a system of permits, also govern the discharge of certain contaminants into waters of the United States. Sanctions for failure to comply strictly with the Clean Water Act are generally resolved by payment of fines and correction of any identified deficiencies. However, regulatory agencies could require us to cease construction or operation of certain facilities or to cease hauling wastewaters to facilities owned by others that are the source of water discharges. We believe that we substantially comply with the Clean Water Act and related federal and state regulations.

**Clean Air Act.** Our operations are subject to the Federal Clean Air Act and comparable local and state laws and regulations to control emissions from sources of air pollution. Federal and state laws require new and modified sources of air pollutants to obtain permits prior to commencing construction. Major sources of air pollutants are subject to more stringent, federally imposed requirements including additional permits. Federal and state laws designed to control toxic air pollutants and greenhouse gases might require installation of additional controls. Payment of fines and correction of any identified deficiencies generally resolve penalties for failure to comply strictly with air regulations or permits. Regulatory agencies could also require us to cease construction or operation of certain facilities or to install additional controls on certain facilities that are air emission sources. We believe that we substantially comply with the emission standards under local, state, and federal laws and regulations.

Some of our producing wells and associated facilities are subject to restrictive air emission limitations and permitting requirements. In 2012, the EPA published final New Source Performance Standards (NSPS) and National Emission

Standards for Hazardous Air Pollutants (NESHAP) that amended the existing NSPS and NESHAP standards for oil and gas facilities and created new NSPS standards for oil and natural gas production, transmission and distribution facilities with a compliance deadline of January 1, 2015. While these rules remain in effect, the EPA announced in 2013 that it would reexamine and reissue the rules over the next three years. The EPA has issued updated rules regarding storage tanks and additional rules are expected. In December 2014, the EPA issued additional amendments to these rules that, among other things, distinguished between multiple flowback stages during completion of hydraulically fractured wells and clarified that storage tanks permanently removed from service are not affected by any requirements. In July 2015, the EPA finalized two further updates to these rules addressing the definition of low pressure gas wells and references to tanks that are connected to one another (referred to as

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connected in parallel). In September 2015, the EPA issued a proposed rule that would update and expand the NSPS by setting additional emissions limits for volatile organic compounds and regulating methane emissions for new and modified sources in the oil and gas industry. The EPA also issued a proposed rule in September 2015 concerning aggregation of sources that would affect source determinations for air permitting in the oil and gas industry. If we are unable to comply with air pollution regulations or to obtain permits for emissions associated with our operations, we could be required to forego construction, modification or certain operations. These regulations may also increase compliance costs for some facilities we own or operate, and result in administrative, civil and/or criminal penalties for non-compliance. Obtaining permits may delay the development of our oil and natural gas projects, including the construction and operation of facilities.

**Safe Drinking Water Act.** The Safe Drinking Water Act (SDWA) and comparable local and state provisions restrict the disposal, treatment or release of water produced or used during oil and gas development. Subsurface emplacement of fluids (including disposal wells or enhanced oil recovery) is governed by federal or state regulatory authorities that, in some cases, includes the state oil and gas regulatory authority or the state's environmental authority. These regulations may increase the costs of compliance for some facilities.

**Hydraulic Fracturing.** Many of our exploration and production operations depend on the use of hydraulic fracturing to enhance production from oil and natural gas wells. This technology involves the injection of fluids, usually consisting mostly of water but typically including small amounts of several chemical additives, as well as sand into a well under high pressure in order to create fractures in the formation that allow oil or natural gas to flow more freely to the wellbore. Most of our wells would not be economical without the use of hydraulic fracturing to stimulate production from the well. Due to concerns raised relating to potential impacts of hydraulic fracturing on groundwater quality, legislative and regulatory efforts at the federal, state and local levels have been initiated to render permitting and compliance requirements more stringent for hydraulic fracturing or prohibit the activity altogether. Increased regulation and attention given to the hydraulic fracturing process could lead to greater opposition to oil and natural gas production activities using hydraulic fracturing techniques which could have an adverse effect on oil and natural gas production activities, including operational delays or increased operating costs in the production of oil and natural gas from the developing shale plays, or could make it more difficult to perform hydraulic fracturing. The adoption of federal, state or local laws or the implementation of regulations regarding hydraulic fracturing could potentially cause a decrease in the completion of new oil and natural gas wells and increased compliance costs, which could increase costs of our operations and cause considerable delays in acquiring regulatory approvals to drill and complete wells. For additional information about hydraulic fracturing and related environmental matters, please read "Risk Factors-Federal and state legislation and regulatory initiatives related to oil and gas development, including hydraulic fracturing, could result in increased costs and operating restrictions or delays" in Item 1A.

**Greenhouse Gas.** In response to studies suggesting that emissions of carbon dioxide and certain other gases may be contributing to global climate change, the United States Congress has considered legislation to reduce emissions of greenhouse gases from sources within the United States between 2012 and 2050. In addition, many states have already taken legal measures to reduce emissions of greenhouse gases, primarily through the planned development of greenhouse gas emission inventories and/or regional greenhouse gas cap and trade programs. The EPA has also begun to regulate carbon dioxide and other greenhouse gas emissions under existing provisions of the Clean Air Act. This includes proposed regulation of methane emissions from the oil and gas sector. If we are unable to recover or pass through a significant portion of our costs related to complying with current and future regulations relating to climate change and GHGs, it could materially affect our operations and financial condition. To the extent financial markets view climate change and GHG emissions as a financial risk, this could negatively impact our cost of, and access to, capital. Future legislation or regulations adopted to address climate change could also make our products more or less desirable than competing sources of energy. Please read "Risk Factors-Climate change and climate change legislation and regulatory initiatives could result in increased operating costs and decreased demand for the oil and natural gas that we produce" in Item 1A.

**OSHA and Other Laws and Regulations.** We are subject to the requirements of the federal Occupational Safety and Health Act (OSHA), and comparable state laws. The OSHA hazard communication standard, the EPA community right to know regulations under the Title III of CERCLA and similar state laws require that we organize and/or

disclose information about hazardous materials used or produced in our operations. Also, pursuant to OSHA, the Occupational Safety and Health Administration has established a variety of standards related to workplace exposure to hazardous substances and employee health and safety.

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### Employees

As of December 31, 2015, we had 459 employees. We also had 165 employees that are employed by our wholly-owned subsidiary, GasSearch Drilling Services Corporation. We recognize that our success is significantly influenced by the relationship we maintain with our employees. Overall, we believe that our relations with our employees are satisfactory. Our employees are not represented by a collective bargaining agreement.

### Website Access to Company Reports

We make available free of charge through our website, [www.cabotog.com](http://www.cabotog.com), our annual reports on Form 10 K, quarterly reports on Form 10 Q, current reports on Form 8 K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission (SEC). Information on our website is not a part of this report. In addition, the SEC maintains an Internet site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements and other information filed by us. The public may read and copy materials that we file with the SEC at the SEC's Public Reference Room located at 100 F Street, NE, Washington, DC 20549. Information regarding the operation of the Public Reference Room can be obtained by calling the SEC at 1 800 SEC 0330.

### Corporate Governance Matters

Our Corporate Governance Guidelines, Corporate Bylaws, Audit Committee Charter, Compensation Committee Charter, Corporate Governance and Nominations Committee Charter, Code of Business Conduct and Safety and Environmental Affairs Committee Charter are available on our website at [www.cabotog.com](http://www.cabotog.com), under the "Governance" section of "About Cabot." Requests can also be made in writing to Investor Relations at our corporate headquarters at Three Memorial City Plaza, 840 Gessner Road, Suite 1400, Houston, Texas 77024.

### ITEM 1A. RISK FACTORS

Natural gas and oil prices fluctuate widely, and low prices for an extended period would likely have a material adverse impact on our business.

Our revenues, operating results, financial condition and ability to borrow funds or obtain additional capital depend substantially on prices we receive for the natural gas and oil that we sell. Lower commodity prices may reduce the amount of natural gas and oil that we can produce economically. Historically, natural gas and oil prices have been volatile, with prices fluctuating widely, and they are likely to continue to be volatile. Because our reserves are predominantly natural gas (approximately 96% of equivalent proved reserves), changes in natural gas prices have a more significant impact on our financial results than oil prices. Natural gas prices, based on the twelve-month average of the first of the month Henry Hub index price, were \$2.59 per Mmbtu in 2015 compared to \$4.35 per Mmbtu in 2014, and have continued to decline to \$2.19 per Mmbtu in February 2016. Oil prices, based on the NYMEX monthly average price, were \$50.28 per barrel in 2015 compared to \$94.99 per barrel in 2014, and have continued to decline to \$31.78 in January 2016. Low prices throughout 2015 have had, and any substantial or extended decline in future natural gas or crude oil prices would have, a material adverse effect our future business, financial condition, results of operations, cash flows, liquidity or ability to finance planned capital expenditures and commitments. Furthermore, substantial, extended decreases in natural gas and crude oil prices may cause us to delay or postpone a significant portion of our exploration, development and exploitation projects or may render such projects uneconomic, which may result in significant downward adjustments to our estimated proved reserves and could negatively impact our ability to borrow and cost of capital and our ability to access capital markets, increase our costs under our revolving credit facility, and limit our ability to execute aspects of our business plans. See "Risk Factors-Recent commodity price declines have resulted in an impairment of our oil and gas properties, and future natural gas and oil price declines may result in additional write-downs of the carrying amount of our assets, which could materially and adversely affect our results of operations."

Prices for natural gas and oil are subject to wide fluctuations in response to relatively minor changes in the supply of and demand for natural gas and oil, market uncertainty and a variety of additional factors that are beyond our control. These factors include but are not limited to the following:

the levels and location of natural gas and oil supply and demand and expectations regarding supply and demand, including the potential long-term impact of an abundance of natural gas from shale (such as that produced from our Marcellus Shale properties) on the global natural gas supply;

the level of consumer demand for natural gas and oil;  
weather conditions;

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political conditions or hostilities in natural gas and oil producing regions, including the Middle East, Africa and South America;

- the ability and willingness of the members of the Organization of Petroleum Exporting Countries and other exporting nations to agree to and maintain oil price and production controls;

the price level and quantities of foreign imports;

actions of governmental authorities;

the availability, proximity and capacity of gathering, transportation, processing and/or refining facilities in regional or localized areas that may affect the realized price for natural gas and oil;

inventory storage levels;

the nature and extent of domestic and foreign governmental regulations and taxation, including environmental and climate change regulation;

the price, availability and acceptance of alternative fuels;

technological advances affecting energy consumption;

speculation by investors in oil and natural gas;

variations between product prices at sales points and applicable index prices; and

overall economic conditions, including the value of the U.S. dollar relative to other major currencies.

These factors and the volatile nature of the energy markets make it impossible to predict the future prices of natural gas and oil. If natural gas and oil prices remain low or continue to decline significantly for a sustained period of time, the lower prices may cause us to reduce our planned drilling program or adversely affect our ability to make planned expenditures, raise additional capital or meet our financial obligations.

Drilling natural gas and oil wells is a high-risk activity.

Our growth is materially dependent upon the success of our drilling program. Drilling for natural gas and oil involves numerous risks, including the risk that no commercially productive natural gas or oil reservoirs will be encountered.

The cost of drilling, completing and operating wells is substantial and uncertain, and drilling operations may be curtailed, delayed or canceled as a result of a variety of factors beyond our control, including:

decreases in natural gas and oil prices;

unexpected drilling conditions, pressure or irregularities in formations;

equipment failures or accidents;

adverse weather conditions;

surface access restrictions;

loss of title or other title related issues;

lack of available gathering or processing facilities or delays in the construction thereof;

compliance with, or changes in, governmental requirements and regulation, including with respect to wastewater disposal, discharge of greenhouse gases and fracturing; and

costs of shortages or delays in the availability of drilling rigs or crews and the delivery of equipment and materials.

Our future drilling activities may not be successful and, if unsuccessful, such failure will have an adverse effect on our future results of operations and financial condition. Our overall drilling success rate or our drilling success rate within a particular geographic area may decline. We may be unable to lease or drill identified or budgeted prospects within our expected time frame, or at all. We may be unable to lease or drill a particular prospect because, in some cases, we identify a prospect or drilling location before seeking an option or lease rights in the prospect or location. Similarly, our drilling schedule may vary

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from our capital budget. The final determination with respect to the drilling of any scheduled or budgeted wells will be dependent on a number of factors, including:

- the results of exploration efforts and the acquisition, review and analysis of seismic data;
  - the availability of sufficient capital resources to us and the other participants for the drilling of the prospects;
  - the approval of the prospects by other participants after additional data has been compiled;
  - economic and industry conditions at the time of drilling, including prevailing and anticipated prices for natural gas and oil and the availability of drilling rigs and crews;
  - our financial resources and results; and
  - the availability of leases and permits on reasonable terms for the prospects and any delays in obtaining such permits.
- These projects may not be successfully developed and the wells, if drilled, may not encounter reservoirs of commercially productive natural gas or oil.

Our proved reserves are estimates. Any material inaccuracies in our reserve estimates or underlying assumptions could cause the quantities and net present value of our reserves to be overstated or understated.

Reserve engineering is a subjective process of estimating underground accumulations of natural gas and oil that cannot be measured in an exact manner. The process of estimating quantities of proved reserves is complex and inherently imprecise, and the reserve data included in this document are only estimates. The process relies on interpretations of available geologic, geophysical, engineering and production data. The extent, quality and reliability of this technical data can vary. The process also requires certain economic assumptions, some of which are mandated by the SEC, such as natural gas and oil prices. Additional assumptions include drilling and operating expenses, capital expenditures, taxes and availability of funds. Furthermore, different reserve engineers may make different estimates of reserves and cash flows based on the same data.

Results of drilling, testing and production subsequent to the date of an estimate may justify revising the original estimate. Accordingly, initial reserve estimates often vary from the quantities of natural gas and oil that are ultimately recovered, and such variances may be material. Any significant variance could reduce the estimated quantities and present value of our reserves.

You should not assume that the present value of future net cash flows from our proved reserves is the current market value of our estimated natural gas and oil reserves. In accordance with SEC requirements, we base the estimated discounted future net cash flows from our proved reserves on the 12-month average index price for the respective commodity, calculated as the unweighted arithmetic average for the first day of the month price for each month and costs in effect on the date of the estimate, holding the prices and costs constant throughout the life of the properties. The present value of future cash flows are based on \$1.81 per Mcf of natural gas, \$12.98 per bbl of natural gas liquids and \$47.10 per bbl of oil as of December 31, 2015. Actual future prices and costs may differ materially from those used in the net present value estimate, and future net present value estimates using then current prices and costs may be significantly less than the current estimate. In addition, the 10% discount factor we use when calculating discounted future net cash flows for reporting requirements in compliance with the applicable accounting standards may not be the most appropriate discount factor based on interest rates in effect from time to time and risks associated with us or the oil and gas industry in general.

Recent commodity price declines have resulted in further impairment of our oil and gas properties, and future natural gas and oil price declines may result in additional write-downs of the carrying amount of our assets, which could materially and adversely affect our results of operations.

The value of our assets depends on prices of natural gas and oil. Declines in these prices as well as increases in development costs, changes in well performance, delays in asset development or deterioration of drilling results may result in our having to make material downward adjustments to our estimated proved reserves, and could result in an impairment charge and a corresponding write-down of the carrying amount of our oil and natural gas properties. For example, in December 2015, we recorded an impairment of approximately \$114.9 million associated with oil and gas properties in certain non-core fields in south Texas, east Texas and Louisiana. The impairment of these fields was due to a significant decline in commodity prices in late 2015. Because our reserves are predominately natural gas (approximately 96% of equivalent proved reserves), changes in natural gas prices have a more significant impact on our financial results than oil prices.

We evaluate our oil and gas properties for impairment on a field-by-field basis whenever events or changes in circumstances indicate a property's carrying amount may not be recoverable. We compare expected undiscounted future cash

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flows to the net book value of the asset. If the future undiscounted expected cash flows, based on our estimate of future natural gas and oil prices, operating costs and anticipated production from proved reserves and risk-adjusted probable and possible reserves, are lower than the net book value of the asset, the capitalized cost is reduced to fair value. Commodity pricing is estimated by using a combination of assumptions management uses in its budgeting and forecasting process as well as historical and current prices adjusted for geographical location and quality differentials, as well as other factors that management believes will impact realizable prices. In the event that commodity prices decline further, there could be a significant revision in the future.

Our future performance depends on our ability to find or acquire additional natural gas and oil reserves that are economically recoverable.

In general, the production rate of natural gas and oil properties declines as reserves are depleted, with the rate of decline depending on reservoir characteristics. Unless we successfully replace the reserves that we produce, our reserves will decline, eventually resulting in a decrease in natural gas and oil production and lower revenues and cash flow from operations. Our future natural gas and oil production is, therefore, highly dependent on our level of success in finding or acquiring additional reserves. We may not be able to replace reserves through our exploration, development and exploitation activities or by acquiring properties at acceptable costs. Low natural gas and oil prices may further limit the kinds of reserves that we can develop and produce economically.

Our reserve report estimates that production from our proved developed reserves as of December 31, 2015 will decrease at a rate of 13%, 27%, 20% and 16% during 2016, 2017, 2018 and 2019, respectively. Future development of proved undeveloped and other reserves currently not classified as proved developed producing will impact these rates of decline. Because of higher initial decline rates from newly developed reserves, we consider this pattern fairly typical.

Exploration, development and exploitation activities involve numerous risks that may result in, among other things, dry holes, the failure to produce natural gas and oil in commercial quantities and the inability to fully produce discovered reserves.

We have substantial capital requirements, and we may not be able to obtain needed financing on satisfactory terms, if at all.

We rely upon access to both our revolving credit facility and longer-term capital markets as sources of liquidity for any capital requirements not satisfied by cash flow from operations or other sources. Future challenges in the global financial system, including the capital markets, may adversely affect our business and our financial condition. Our ability to access the capital markets may be restricted at a time when we desire, or need, to raise capital, which could have an impact on our flexibility to react to changing economic and business conditions. Adverse economic and market conditions could adversely affect the collectability of our trade receivables and cause our commodity hedging counterparties to be unable to perform their obligations or to seek bankruptcy protection. Future challenges in the economy could also lead to reduced demand for natural gas which could have a negative impact on our revenues. Risks associated with our debt and the provisions of our debt agreements could adversely affect our business, financial position and results of operations.

As of December 31, 2015, we had approximately \$2.0 billion of debt outstanding and we may incur additional indebtedness in the future. Increases in our level of indebtedness may:

- require us to use a substantial portion of our cash flow to make debt service payments, which will reduce the funds that would otherwise be available for operations and future business opportunities;
- limit our operating flexibility due to financial and other restrictive covenants, including restrictions on incurring additional debt, making certain investments, and paying dividends;
- place us at a competitive disadvantage compared to our competitors with lower debt service obligations;
- depending on the levels of our outstanding debt, limit our ability to obtain additional financing for working capital, capital expenditures, general corporate and other purposes; and
- increase our vulnerability to downturns in our business or the economy, including further declines in prices for natural gas and oil.

In addition, the interest rates that we pay on our senior unsecured notes and the margins we pay under our revolving credit facility depend on our leverage ratio and our asset coverage ratio. Accordingly, increases in the amount of our

indebtedness without corresponding increases in our earnings or the present value of our reserves, or decreases in our earnings or the present value of

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our natural gas and oil reserves without a corresponding decrease in our indebtedness, will result in an increase in our interest expense.

Our debt agreements also require compliance with covenants to maintain specified financial ratios. If the price that we receive for our natural gas and oil production further deteriorates from current levels or continues for an extended period, it could lead to further reduced revenues, cash flow and earnings, which in turn could lead to a default under the ratios described above. Because the calculations of the financial ratios are made as of certain dates, the financial ratios can fluctuate significantly from period to period. A prolonged period of decreased natural gas and oil prices or a further decline could further increase the risk of our inability to comply with covenants to maintain specified financial ratios. In order to provide a margin of comfort with regard to these financial covenants, we may seek to reduce our capital expenditure plan, sell non-strategic assets or opportunistically modify or increase our derivative instruments to the extent permitted under our debt agreements. In addition, we may seek to refinance or restructure all or a portion of our indebtedness. We cannot assure you that we will be able to successfully execute any of these strategies, and such strategies may be unavailable on favorable terms or at all. For more information about our debt agreements, please read “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Financial Condition-Capital Resources and Liquidity.”

The borrowing base under our revolving credit facility may be reduced in light of recent commodity price declines, which could limit us in the future.

The borrowing base under our revolving credit facility is currently \$3.4 billion, and lender commitments under our revolving credit facility are \$1.8 billion. The borrowing base is redetermined annually under the terms of the revolving credit facility on April 1. In addition, either we or the banks may request an interim redetermination twice a year or in conjunction with certain acquisitions or sales of oil and gas properties. Our borrowing base may decrease as a result of lower natural gas or oil prices, operating difficulties, declines in reserves, lending requirements or regulations, the issuance of new indebtedness or for any other reason. In the event of a decrease in our borrowing base due to declines in commodity prices or otherwise, our ability to borrow under our revolving credit facility may be limited and we could be required to repay any indebtedness in excess of the redetermined borrowing base. In addition, we may be unable to access the equity or debt capital markets, including the market for senior unsecured notes, to meet our obligations, including any such debt repayment obligations.

Strategic determinations, including the allocation of capital and other resources to strategic opportunities, are challenging, and our failure to appropriately allocate capital and resources among our strategic opportunities may adversely affect our financial condition and reduce our growth rate.

Our future growth prospects are dependent upon our ability to identify optimal strategies for our business. In developing our business plan, we considered allocating capital and other resources to various aspects of our businesses including well-development (primarily drilling), reserve acquisitions, exploratory activity, corporate items and other alternatives. We also considered our likely sources of capital. Notwithstanding the determinations made in the development of our 2016 plan, business opportunities not previously identified periodically come to our attention, including possible acquisitions and dispositions. If we fail to identify optimal business strategies, or fail to optimize our capital investment and capital raising opportunities and the use of our other resources in furtherance of our business strategies, our financial condition and growth rate may be adversely affected. Moreover, economic or other circumstances may change from those contemplated by our 2016 plan, and our failure to recognize or respond to those changes may limit our ability to achieve our objectives.

Negative public perception regarding us and/or our industry could have an adverse effect on our operations.

Negative public perception regarding us and/or our industry resulting from, among other things, concerns raised by advocacy groups about hydraulic fracturing, oil spills, greenhouse gas or methane emissions and explosions of natural gas transmission lines, may lead to increased regulatory scrutiny, which may, in turn, lead to new state and federal safety and environmental laws, regulations, guidelines and enforcement interpretations. These actions may cause operational delays or restrictions, increased operating costs, additional regulatory burdens and increased risk of litigation. Moreover, governmental authorities exercise considerable discretion in the timing and scope of permit issuance and the public may engage in the permitting process, including through intervention in the courts. Negative public perception could cause the permits we need to conduct our operations to be withheld, delayed, or burdened by



requirements that restrict our ability to profitably conduct our business.

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Our ability to sell our natural gas and oil production and/or the prices we receive for our production could be materially harmed if we fail to obtain adequate services such as transportation and processing.

The sale of our natural gas and oil production depends on a number of factors beyond our control, including the availability and capacity of transportation and processing facilities. We deliver our natural gas and oil production primarily through gathering systems and pipelines that we do not own. The lack of available capacity on these systems and facilities could reduce the price offered for our production or result in the shut-in of producing wells or the delay or discontinuance of development plans for properties. Third-party systems and facilities may be unavailable due to market conditions or mechanical or other reasons. In addition, at current commodity prices, construction of new pipelines and building of such infrastructure may be slower to build out. To the extent these services are unavailable, we would be unable to realize revenue from wells served by such facilities until suitable arrangements are made to market our production. Our failure to obtain these services on acceptable terms could materially harm our business. For example, the Marcellus Shale wells we have drilled to date have generally reported very high initial production rates. The amount of natural gas being produced in the area from these new wells, as well as natural gas produced from other existing wells, may exceed the capacity of the various gathering and intrastate or interstate transportation pipelines currently available. In such event, this could result in wells being shut in or awaiting a pipeline connection or capacity and/or natural gas being sold at much lower prices than those quoted on NYMEX or than we currently project, which would adversely affect our results of operations and cash flows.

We are subject to complex laws and regulations, including environmental and safety regulations, which can adversely affect the cost, manner or feasibility of doing business.

Our operations are subject to extensive federal, state and local laws and regulations, including drilling, permitting and safety laws and regulations and those relating to the generation, storage, handling, emission, transportation and discharge of materials into the environment. These laws and regulations can adversely affect the cost, manner or feasibility of doing business. Many laws and regulations require permits for the operation of various facilities, and these permits are subject to revocation, modification and renewal. Governmental authorities have the power to enforce compliance with their regulations, and violations could subject us to fines, injunctions or both. These laws and regulations have increased the costs of planning, designing, drilling, installing and operating natural gas and oil facilities, and new laws and regulations or revisions or reinterpretations of existing laws and regulations could further increase these costs. Increased scrutiny of our industry may also occur as a result of EPA's 2014-2016 National Enforcement Initiative, "Ensuring Energy Extraction Activities Comply with Environmental Laws," through which EPA will address incidences of noncompliance from natural gas extraction and production activities that may cause or contribute to significant harm to public health and/or the environment. In addition, we may be liable for environmental damages caused by previous owners of property we purchase or lease. Risks of substantial costs and liabilities related to environmental compliance issues are inherent in natural gas and oil operations. For example, we could be required to install expensive pollution control measures or limit or cease activities on lands located within wilderness, wetlands or other environmentally or politically sensitive areas. Failure to comply with these laws also may result in the suspension or termination of our operations and subject us to administrative, civil and criminal penalties as well as the imposition of corrective action orders. It is possible that other developments, such as stricter environmental laws and regulations, and claims for damages to property or persons resulting from natural gas and oil production, would result in substantial costs and liabilities.

Acquired properties may not be worth what we pay due to uncertainties in evaluating recoverable reserves and other expected benefits, as well as potential liabilities.

Successful property acquisitions require an assessment of a number of factors beyond our control. These factors include estimates of recoverable reserves, exploration potential, future natural gas and oil prices, operating costs, production taxes and potential environmental and other liabilities. These assessments are complex and inherently imprecise. Our review of the properties we acquire may not reveal all existing or potential problems. In addition, our review may not allow us to fully assess the potential deficiencies of the properties. We do not inspect every well, and even when we inspect a well we may not discover structural, subsurface, or environmental problems that may exist or arise.

There may be threatened or contemplated claims against the assets or businesses we acquire related to environmental, title, regulatory, tax, contract, litigation or other matters of which we are unaware, which could materially and adversely affect our production, revenues and results of operations. We often assume certain liabilities, and we may not be entitled to contractual indemnification for pre-closing liabilities, including environmental liabilities, and our contractual indemnification may not be effective. At times, we acquire interests in properties on an "as is" basis with limited representations and warranties and limited remedies for breaches of such representations and warranties. In addition, significant acquisitions can change the

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nature of our operations and business if the acquired properties have substantially different operating and geological characteristics or are in different geographic locations than our existing properties.

The integration of the properties we acquire could be difficult, and may divert management's attention away from our existing operations.

The integration of the properties we acquire could be difficult, and may divert management's attention and financial resources away from our existing operations. These difficulties include:

- the challenge of integrating the acquired properties while carrying on the ongoing operations of our business;
- the inability to retain key employees of the acquired business;
- potential lack of operating experience in a geographic market of the acquired properties; and
- the possibility of faulty assumptions underlying our expectations.

The process of integrating our operations could cause an interruption of, or loss of momentum in, the activities of our business. Members of our management may be required to devote considerable amounts of time to this integration process, which will decrease the time they will have to manage our existing business. If management is not able to effectively manage the integration process, or if any significant business activities are interrupted as a result of the integration process, our business could suffer.

We face a variety of hazards and risks that could cause substantial financial losses.

Our business involves a variety of operating risks, including:

- well site blowouts, cratering and explosions;
- equipment failures;
- pipe or cement failures and casing collapses, which can release natural gas, oil, drilling fluids or hydraulic fracturing fluids;
- uncontrolled flows of natural gas, oil or well fluids;
- pipeline ruptures;
- fires;
- formations with abnormal pressures;
- handling and disposal of materials, including drilling fluids and hydraulic fracturing fluids;
- release of toxic gas;
- buildup of naturally occurring radioactive materials;
- pollution and other environmental risks, including conditions caused by previous owners or lessors of our properties; and
- natural disasters.

Any of these events could result in injury or loss of human life, loss of hydrocarbons, significant damage to or destruction of property, environmental pollution, regulatory investigations and penalties, suspension or impairment of our operations and substantial losses to us.

Our operation of natural gas gathering and pipeline systems also involves various risks, including the risk of explosions and environmental hazards caused by pipeline leaks and ruptures. The location of pipelines near populated areas, including residential areas, commercial business centers and industrial sites, could increase these risks. As of December 31, 2015, we owned or operated approximately 3,100 miles of natural gas gathering and pipeline systems. As part of our normal maintenance program, we have identified certain segments of our pipelines that we believe periodically require repair, replacement or additional maintenance.

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We may not be insured against all of the operating risks to which we are exposed.

We maintain insurance against some, but not all, operating risks and losses. We do not carry business interruption insurance. In addition, pollution and environmental risks generally are not fully insurable. The occurrence of an event not fully covered by insurance could have a material adverse effect on our financial position, results of operations and cash flows.

We have limited control over the activities on properties we do not operate.

Other companies operate some of the properties in which we have an interest. As of December 31, 2015, non-operated wells represented approximately 8.7% of our total owned gross wells, or approximately 2.6% of our owned net wells. We have limited ability to influence or control the operation or future development of these non-operated properties, including compliance with environmental, safety and other regulations, or the amount of capital expenditures that we are required to fund with respect to them. The failure of an operator of our wells to adequately perform operations, an operator's breach of the applicable agreements or an operator's failure to act in ways that are in our best interest could reduce our production and revenues. Our dependence on the operator and other working interest owners for these projects and our limited ability to influence or control the operation and future development of these properties could materially adversely affect the realization of our targeted returns on capital in drilling or acquisition activities and lead to unexpected future costs.

Terrorist activities and the potential for military and other actions could adversely affect our business.

The threat of terrorism and the impact of military and other action have caused instability in world financial markets and could lead to increased volatility in prices for natural gas and oil, all of which could adversely affect the markets for our operations. Acts of terrorism, including cybersecurity threats to gain unauthorized access to sensitive information or to render data or systems unusable, could be directed against companies operating in the United States. The U.S. government has issued public warnings that indicate energy assets might be specific targets of terrorist organizations. These developments have subjected our operations to increased risk and, depending on their ultimate magnitude, could have a material adverse effect on our business.

Competition in our industry is intense, and many of our competitors have substantially greater financial and technological resources than we do, which could adversely affect our competitive position.

Competition in the natural gas and oil industry is intense. Major and independent natural gas and oil companies actively bid for desirable natural gas and oil properties, as well as for the capital, equipment and labor required to operate and develop these properties. Our competitive position is affected by price, contract terms and quality of service, including pipeline connection times, distribution efficiencies and reliable delivery record. Many of our competitors have financial and technological resources and exploration and development budgets that are substantially greater than ours. These companies may be able to pay more for exploratory projects and productive natural gas and oil properties and may be able to define, evaluate, bid for and purchase a greater number of properties and prospects than our financial or human resources permit. In addition, these companies may be able to expend greater resources on the existing and changing technologies that we believe will be increasingly important to attaining success in the industry. These companies may also have a greater ability to continue drilling activities during periods of low natural gas and oil prices and to absorb the burden of current and future governmental regulations and taxation.

We may have hedging arrangements that expose us to risk of financial loss and limit the benefit to us of increases in prices for natural gas and oil.

From time to time, when we believe that market conditions are favorable, we use financial derivative instruments to manage price risk associated with our natural gas and crude oil production. While there are many different types of derivatives available, we generally utilize collar and swap agreements to manage price risk more effectively.

The collar arrangements are put and call options used to establish floor and ceiling prices for a fixed volume of production during a certain time period. They provide for payments to counterparties if the index price exceeds the ceiling and payments from the counterparties if the index price falls below the floor. The swap agreements call for payments to, or receipts from, counterparties based on whether the index price for the period is greater or less than the fixed price established for that period when the swap is put in place. These arrangements limit the benefit to us of increases in prices. In addition, these arrangements expose us to risks of financial loss in a variety of circumstances, including when:

there is an adverse change in the expected differential between the underlying price in the derivative instrument and actual prices received for our production;  
•  
production is less than expected; or

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a counterparty is unable to satisfy its obligations.

The CFTC has promulgated regulations to implement statutory requirements for swap transactions. These regulations are intended to implement a regulated market in which most swaps are executed on registered exchanges or swap execution facilities and cleared through central counterparties. While we believe that our use of swap transactions exempt us from certain regulatory requirements, the changes to the swap market due to increased regulation could significantly increase the cost of entering into new swaps or maintaining existing swaps, materially alter the terms of new or existing swap transactions and/or reduce the availability of new or existing swaps. If we reduce our use of swaps as a result of the Dodd-Frank Act and regulations, our results of operations may become more volatile and our cash flows may be less predictable.

We will continue to evaluate the benefit of utilizing derivatives in the future. Please read "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 and "Quantitative and Qualitative Disclosures about Market Risk" in Item 7A for further discussion concerning our use of derivatives.

The loss of key personnel could adversely affect our ability to operate.

Our operations are dependent upon a relatively small group of key management and technical personnel, and one or more of these individuals could leave our employment. The unexpected loss of the services of one or more of these individuals could have a detrimental effect on us. In addition, our drilling success and the success of other activities integral to our operations will depend, in part, on our ability to attract and retain experienced geologists, engineers and other professionals. Competition for experienced geologists, engineers and some other professionals is extremely intense. If we cannot retain our technical personnel or attract additional experienced technical personnel, our ability to compete could be harmed.

Federal and state legislation and regulatory initiatives related to oil and gas development, including hydraulic fracturing, could result in increased costs and operating restrictions or delays.

Most of our exploration and production operations depend on the use of hydraulic fracturing to enhance production from oil and gas wells. This technology involves the injection of fluids—usually consisting mostly of water but typically including small amounts of several chemical additives—as well as sand or other proppants into a well under high pressure in order to create fractures in the rock that allow oil or gas to flow more freely to the wellbore. Most of our wells would not be economical without the use of hydraulic fracturing to stimulate production from the well. Hydraulic fracturing operations have historically been overseen by state regulators as part of their oil and gas regulatory programs; however, the EPA has asserted federal regulatory authority over certain hydraulic fracturing activities involving diesel under the Safe Drinking Water Act and has released permitting guidance for hydraulic fracturing activities that use diesel in fracturing fluids in those states where EPA is the permitting authority, including Pennsylvania. As a result, we may be subject to additional permitting requirements for hydraulic fracturing operations as well as various restrictions on those operations. These permitting requirements and restrictions could result in delays in operations at well sites as well as increased costs to make wells productive. In addition, legislation introduced in Congress would provide for federal regulation of hydraulic fracturing under the Safe Drinking Water Act and require the public disclosure of certain information regarding the chemical makeup of hydraulic fracturing fluids. If adopted, this legislation could establish an additional level of regulation and permitting at the federal, state or local levels, and could make it easier for third parties opposed to the hydraulic fracturing process to initiate legal proceedings based on allegations that specific chemicals used in the fracturing process could adversely affect the environment, including groundwater, soil or surface water. Moreover, in May 2014, the EPA announced an Advanced Notice of Proposed Rulemaking under the Toxic Substances Control Act relating to data collection, including the chemical substances and mixtures used in hydraulic fracturing. Further, in March 2015, the Department of the Interior's Bureau of Land Management (BLM) issued a final rule to regulate hydraulic fracturing on public and Indian land; however, enforcement of the rule has been delayed pending a decision in a legal challenge in the U.S. District Court of Wyoming. We voluntarily disclose on a well-by-well basis the chemicals we use in the hydraulic fracturing process at [www.fracfocus.org](http://www.fracfocus.org).

On August 16, 2012, the EPA published final rules that establish new air emission control requirements for natural gas and NGL production, processing and transportation activities, including New Source Performance Standards (NSPS) to address emissions of sulfur dioxide and volatile organic compounds, and National Emission Standards for

Hazardous Air Pollutants (NESHAPS) to address hazardous air pollutants frequently associated with gas production and processing activities. Among other things, these final rules require the reduction of volatile organic compound emissions from natural gas wells through the use of reduced emission completions or "green completions" on all hydraulically fractured wells constructed or refractured after January 1, 2015. In addition, gas wells were required to use completion combustion device equipment (i.e., flaring) if emissions cannot be directed to a gathering line. Further, the final rules under NESHAPS include maximum achievable control technology (MACT) standards for "small" glycol dehydrators that are located at major sources of hazardous air pollutants and modifications to the leak detection standards for valves. In December 2014, the EPA finalized additional amendments to these rules that, among other things, distinguished between multiple flowback stages during completion and clarified that storage



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tanks permanently removed from service are not affected by any requirements. In July 2015, the EPA finalized two updates to the rules addressing the definition of low pressure gas wells and references to tanks that are connected to one another. In September 2015, the EPA issued a proposed rule that would update and expand the NSPS by setting additional emissions limits for volatile organic compounds and regulating methane emissions for new and modified sources in the oil and gas industry. The EPA also issued a proposed rule in September 2015 concerning aggregation of sources that would affect source determinations for air permitting in the oil and gas industry.

Compliance with these requirements, especially the imposition of these green completion requirements and potential methane regulation, may require modifications to certain of our operations, including the installation of new equipment to control emissions at the well site that could result in significant costs, including increased capital expenditures and operating costs, and could adversely impact our business. Similarly, aggregating our oil and gas facilities for permitting could result in more complex, costly, and time consuming air permitting. Particularly in regard to obtaining pre-construction permits, the proposed aggregation rule could add costs and cause delays in our operations.

In addition to these federal legislative and regulatory proposals, some states in which we operate, such as Pennsylvania, West Virginia and Texas, and certain local governments have adopted, and others are considering adopting, regulations that could restrict hydraulic fracturing in certain circumstances, including requirements regarding chemical disclosure, casing and cementing of wells, withdrawal of water for use in high-volume hydraulic fracturing of horizontal wells, baseline testing of nearby water wells, and restrictions on the type of additives that may be used in hydraulic fracturing operations. For example, the City of Denton, Texas adopted a moratorium on hydraulic fracturing in November 2014, though it was later lifted in 2015, and New York issued a statewide ban on hydraulic fracturing in June 2015. In addition, Pennsylvania's Act 13 of 2012 became law on February 14, 2012 and amended the state's Oil and Gas Act to, among other things, increase civil penalties and strengthen the Pennsylvania Department of Environmental Protection's (PaDEP) authority over the issuance of drilling permits. Although the Pennsylvania Supreme Court struck down portions of Act 13 that made statewide rules on oil and gas preempt local zoning rules, this could lead to additional local restrictions on oil and gas activity in the state. Additional challenges to Act 13 are pending before the Pennsylvania Supreme Court; however, the timing of any decision is uncertain.

We use a significant amount of water in our hydraulic fracturing operations. Our inability to locate sufficient amounts of water, or dispose of or recycle water used in our operations, could adversely impact our operations. Moreover, new environmental initiatives and regulations could include restrictions on our ability to conduct certain operations such as hydraulic fracturing or disposal of waste, including, but not limited to, produced water, drilling fluids and other wastes associated with the exploration, development or production of natural gas. Compliance with environmental regulations and permit requirements governing the withdrawal, storage and use of surface water or groundwater necessary for hydraulic fracturing of wells may increase our operating costs and cause delays, interruptions or termination of our operations, the extent of which cannot be predicted, all of which could have an adverse effect on our operations and financial condition. For example, in April 2011, PaDEP called on all Marcellus Shale natural gas drilling operators to voluntarily cease by May 19, 2011 delivering wastewater to those centralized treatment facilities that were grandfathered from the application of PaDEP's Total Dissolved Solids regulations. In April 2015, the EPA published proposed pretreatment standards for disposal of wastewater produced from shale gas operations to publicly owned treatment works (POTWs). The regulations will be developed under the EPA's Effluent Guidelines Program under the authority of the Clean Water Act. In response to these actions, operators including us have begun to rely more on recycling of flowback and produced water from well sites as a preferred alternative to disposal.

A number of federal agencies are analyzing, or have been requested to review, a variety of environmental issues associated with hydraulic fracturing practices. The EPA is conducting a study of the potential environmental effects of hydraulic fracturing on drinking water and groundwater. The EPA released a draft report in June 2015. It concluded that activities have not led to widespread systematic impacts on drinking water resources in the United States, but there are above and below ground mechanisms by which hydraulic fracturing could affect drinking water resources. This study and other studies that may be undertaken by EPA or other federal agencies could spur initiatives to further regulate hydraulic fracturing under the Safe Drinking Water Act, the Toxic Substances Control Act, or other statutory and/or regulatory mechanisms.

Climate change and climate change legislation and regulatory initiatives could result in increased operating costs and decreased demand for the oil and natural gas that we produce.

Climate change, the costs that may be associated with its effects, and the regulation of greenhouse gas (GHG) emissions have the potential to affect our business in many ways, including increasing the costs to provide our products and services, reducing the demand for and consumption of our products and services (due to change in both costs and weather patterns), and the economic health of the regions in which we operate, all of which can create financial risks. In addition, legislative and regulatory responses related to GHG emissions and climate change may increase our operating costs. The United States Congress has previously considered legislation related to GHG emissions. There have also been international efforts seeking legally binding reductions in GHG emissions. For example, in November 2014, the Obama Administration announced an

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agreement with China to voluntarily reduce GHG emissions by 26% to 28% of 2005 levels by 2025. Further, the United States joined over 190 countries in Lima, Peru in December 2014 and agreed to draft an emissions reduction plan ahead of further international climate negotiations in Paris, France in 2015. The United States was actively involved in the negotiations in Paris, which led to the creation of the Paris Agreement. The Paris Agreement will be open for signing on April 22, 2016 and will require countries to review and "represent a progression" in their intended nationally determined contributions, which set emissions reduction goals, every five years, beginning in 2020. The Paris Agreement sets a goal of keeping warming well below 2 degrees Celsius and sets a target limit of 1.5 degrees Celsius. In addition, increased public awareness and concern may result in more state, regional and/or federal requirements to reduce or mitigate GHG emissions. For example, in June 2013, the Obama Administration announced its Climate Action Plan, which, among other things, directs federal agencies to develop a strategy for the reduction of methane emissions, including emissions from the oil and gas sector. Pursuant to this plan, the EPA issued a proposed rule updating New Source Performance Standards and setting requirements for methane emissions and volatile organic compounds in the oil and gas sector in September 2015.

In September 2009, the EPA finalized a mandatory GHG reporting rule that requires large sources of GHG emissions to monitor, maintain records on, and annually report their GHG emissions beginning January 1, 2010. The rule applies to large facilities emitting 25,000 metric tons or more of carbon dioxide-equivalent (CO<sub>2</sub>e) emissions per year and to most upstream suppliers of fossil fuels, as well as manufacturers of vehicles and engines. Subsequently, in November 2010, the EPA issued GHG monitoring and reporting regulations that went into effect on December 30, 2010, specifically for oil and natural gas facilities, including onshore and offshore oil and natural gas production facilities that emit 25,000 metric tons or more of CO<sub>2</sub>e per year. The rule required reporting of GHG emissions by regulated facilities to the EPA by March 2012 for emissions during 2011 and annually thereafter. We are required to report our GHG emissions to the EPA each year in March under this rule and have submitted our annual reports in compliance with the deadline. The EPA also issued a final rule that makes certain stationary sources and newer modification projects subject to permitting requirements for GHG emissions, beginning in 2011, under the CAA. However, in June 2014, the U.S. Supreme Court, in *UARG v. EPA*, limited the application of the GHG permitting requirements under the Prevention of Significant Deterioration and Title V permitting programs to sources that would otherwise need permits based on the emission of conventional pollutants.

Federal and state regulatory agencies can impose administrative, civil and/or criminal penalties for non-compliance with air permits or other requirements of the CAA and associated state laws and regulations. In addition, the passage of any federal or state climate change laws or regulations in the future could result in increased costs to (i) operate and maintain our facilities, (ii) install new emission controls on our facilities and (iii) administer and manage any GHG emissions program. If we are unable to recover or pass through a significant level of our costs related to complying with climate change regulatory requirements imposed on us, it could have a material adverse effect on our results of operations and financial condition. To the extent financial markets view climate change and GHG emissions as a financial risk, this could negatively impact our cost of and access to capital. Legislation or regulations that may be adopted to address climate change could also affect the markets for our products by making our products more or less desirable than competing sources of energy.

Moreover, some experts believe climate change poses potential physical risks, including an increase in sea level and changes in weather conditions, such as an increase in changes in precipitation and extreme weather events. In addition, warmer winters as a result of global warming could also decrease demand for natural gas. To the extent that such unfavorable weather conditions are exacerbated by global climate change or otherwise, our operations may be adversely affected to a greater degree than we have previously experienced, including increased delays and costs. However, the uncertain nature of changes in extreme weather events (such as increased frequency, duration, and severity) and the long period of time over which any changes would take place make any estimations of future financial risk to our operations caused by these potential physical risks of climate change unreliable. Certain federal income tax law changes have been proposed that, if passed, would have an adverse effect on our financial position, results of operations, and cash flows.

Substantive changes to existing federal income tax laws have been proposed that, if adopted, would repeal many tax incentives and deductions that are currently used by U.S. oil and gas companies and would impose new taxes. The proposals include: repeal of the percentage depletion allowance for oil and natural gas properties; elimination of the ability to fully deduct intangible drilling costs in the year incurred; repeal of the manufacturing tax deduction for oil and gas companies; and increase in the geological and geophysical amortization period for independent producers. Should some or all of these proposals become law, our taxes will increase, potentially significantly, which would have a negative impact on our net income and cash flows. This could also reduce our drilling activities in the U.S. Since none of these proposals have yet to become law, we do not know the ultimate impact these proposed changes may have on our business.

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Provisions of Delaware law and our bylaws and charter could discourage change in control transactions and prevent stockholders from receiving a premium on their investment.

Our charter authorizes our Board of Directors to set the terms of preferred stock. In addition, Delaware law contains provisions that impose restrictions on business combinations with interested parties. Our bylaws prohibit the calling of a special meeting by our stockholders and place procedural requirements and limitations on stockholder proposals at meetings of stockholders. Because of these provisions of our charter, bylaws and Delaware law, persons considering unsolicited tender offers or other unilateral takeover proposals may be more likely to negotiate with our Board of Directors rather than pursue non-negotiated takeover attempts. As a result, these provisions may make it more difficult for our stockholders to benefit from transactions that are opposed by an incumbent Board of Directors.

The personal liability of our directors for monetary damages for breach of their fiduciary duty of care is limited by the Delaware General Corporation Law and by our charter.

The Delaware General Corporation Law allows corporations to limit available relief for the breach of directors' duty of care to equitable remedies such as injunction or rescission. Our charter limits the liability of our directors to the fullest extent permitted by Delaware law. Specifically, our directors will not be personally liable for monetary damages for any breach of their fiduciary duty as a director, except for liability:

• for any breach of their duty of loyalty to the company or our stockholders;

• for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

• under provisions relating to unlawful payments of dividends or unlawful stock repurchases or redemptions; and

• for any transaction from which the director derived an improper personal benefit.

This limitation may have the effect of reducing the likelihood of derivative litigation against directors, and may discourage or deter stockholders or management from bringing a lawsuit against directors for breach of their duty of care, even though such an action, if successful, might otherwise have benefited our stockholders.

### ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

### ITEM 3. LEGAL PROCEEDINGS

#### Legal Matters

The information set forth under the heading "Legal Matters" in Note 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K is incorporated by reference in response to this item.

#### Environmental Matters

On November 12, 2015, we received a proposed Consent Order and Agreement from the Pennsylvania Department of Environmental Protection (PaDEP) relating to gas migration allegations in an area surrounding several wells owned and operated by us in Susquehanna County, Pennsylvania. The allegations relating to these wells were initially raised by residents in the area in August 2011. We received a Notice of Violation from the PaDEP in September 2011 for failure to prevent the migration of gas into fresh groundwater sources in the area surrounding these wells. Since then, we have been engaged with the PaDEP in investigating the incident and have performed appropriate remediation efforts, including the provision of alternative sources of drinking water to affected residents. We believe the source of methane has been remediated and are working with the PaDEP to reach agreement on the disposition of this matter. The proposed Consent Order and Agreement is the culmination of this effort and, if finalized, would result in the payment of a civil monetary penalty in an amount likely to exceed \$100,000, up to approximately \$300,000. We will continue to work with the PaDEP to finalize the Consent Order and Agreement and bring this matter to a close. From time to time we receive notices of violation from governmental and regulatory authorities in areas in which we operate relating to alleged violations of environmental statutes or the rules and regulations promulgated thereunder. While we cannot predict with certainty whether these notices of violation will result in fines and/or penalties, if fines and/or penalties are imposed, they may result in monetary sanctions, individually or in the aggregate, in excess of \$100,000.



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## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## EXECUTIVE OFFICERS OF THE REGISTRANT

The following table shows certain information as of February 19, 2016 about our executive officers, as such term is defined in Rule 3b-7 of the Securities Exchange Act of 1934, and certain of our other officers.

Name	Age	Position	Officer Since
Dan O. Dinges	62	Chairman, President and Chief Executive Officer	2001
Scott C. Schroeder	53	Executive Vice President and Chief Financial Officer	1997
Jeffrey W. Hutton	60	Senior Vice President, Marketing	1995
G. Kevin Cunningham	62	Vice President and General Counsel	2010
Todd L. Liebl	58	Vice President, Land and Business Development	2012
Steven W. Lindeman	55	Vice President, Engineering and Technology	2011
Phillip L. Stalnaker	56	Vice President, Regional Manager North Region	2009
Matthew P. Kerin	35	Treasurer	2014
Todd M. Roemer	45	Controller	2010
Deidre L. Shearer	48	Corporate Secretary and Managing Counsel	2012

All officers are elected annually by our Board of Directors. All of the executive officers have been employed by Cabot Oil & Gas Corporation for at least the last five years, except for Mr. Matthew P. Kerin and Ms. Deidre L. Shearer.

Mr. Kerin joined the Company in March 2012 and was appointed Treasurer in September 2014. Mr. Kerin most recently served as Manager - Finance and Investor Relations. Prior to joining the Company, Mr. Kerin served as an Associate in the Oil and Gas Investment Banking group at J.P. Morgan Securities. He is a graduate of Texas A&M University with a Bachelor in Business Administration degree in Accounting and a Master of Science degree in Finance. He is also a graduate from the Jones Graduate School of Business at Rice University with a Master in Business Administration degree with a concentration in Finance and Energy.

Ms. Shearer joined the Company in December 2011 and was appointed Corporate Secretary and Managing Counsel in February 2012. Prior to joining the Company, Ms. Shearer was Assistant General Counsel of KBR, Inc. from January 2007, where she was responsible for corporate governance and SEC and NYSE compliance matters. Ms. Shearer received her J.D. degree from The University of Texas School of Law in 1992 and was primarily in private practice until she joined KBR.

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## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed and principally traded on the New York Stock Exchange under the ticker symbol "COG." The following table presents the high and low closing sales prices per share of our common stock during certain periods, as reported in the consolidated transaction reporting system. Cash dividends paid per share of the common stock are also shown.

	High	Low	Dividends
2015			
First Quarter	\$ 30.01	\$ 26.44	\$ 0.02
Second Quarter	\$ 35.34	\$ 29.95	\$ 0.02
Third Quarter	\$ 30.98	\$ 21.28	\$ 0.02
Fourth Quarter	\$ 23.70	\$ 15.03	\$ 0.02
2014			
First Quarter	\$ 41.54	\$ 32.18	\$ 0.02
Second Quarter	\$ 39.33	\$ 32.35	\$ 0.02
Third Quarter	\$ 35.16	\$ 31.41	\$ 0.02
Fourth Quarter	\$ 34.71	\$ 28.46	\$ 0.02

As of February 1, 2016, there were 394 registered holders of our common stock.

## EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of December 31, 2015 regarding the number of shares of common stock that may be issued under our 2014 and 2004 incentive plans. Effective May 1, 2014, no additional awards are to be granted under the 2004 Incentive Plan.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	3,064,070	(1) \$ 12.52	(2) 17,150,983 (3)
Equity compensation plans not approved by security holders	n/a	n/a	n/a
Total	3,064,070	\$ 12.52	17,150,983

(1) Includes 558,546 SARs to be settled in common stock, which are fully vested; 925,590 employee performance shares, the performance periods of which end on December 31, 2015, 2016 and 2017; 732,286 TSR performance shares, the performance periods of which end on December 31, 2015, 2016 and 2017; 372,385 hybrid performance shares, of which vest, if at all, in 2016, 2017, and 2018; and 425,438 restricted stock units awarded to the non-employee directors, the restrictions on which lapse upon a non-employee director's departure from the Board of Directors.

(2) Price is only with respect to the 558,546 SARs outstanding because all other outstanding awards are issued without an exercise price.

(3) Includes 49,825 shares of restricted stock, the restrictions on which lapse on various dates in 2016, 2017 and 2018; and 17,101,158 shares that are available for future grants under the 2014 Incentive Plan.





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## ISSUER PURCHASES OF EQUITY SECURITIES

Our Board of Directors has authorized a share repurchase program under which we may purchase shares of common stock in the open market or in negotiated transactions. There is no expiration date associated with the authorization. During 2015, we did not repurchase any shares of common stock. All purchases executed to date have been through open market transactions. The maximum number of remaining shares that may be purchased under the plan as of December 31, 2015 was 10,107,320.

## PERFORMANCE GRAPH

The following graph compares our common stock performance ("COG") with the performance of the Standard & Poor's 500 Stock Index and the Dow Jones U.S. Exploration & Production Index for the period December 2010 through December 2015. The graph assumes that the value of the investment in our common stock and in each index was \$100 on December 31, 2010 and that all dividends were reinvested.

Calculated Values	December 31,					
	2010	2011	2012	2013	2014	2015
COG	\$100.00	\$200.96	\$263.92	\$412.06	\$315.50	\$189.06
S&P 500	\$100.00	\$102.11	\$118.45	\$156.82	\$178.29	\$180.75
Dow Jones U.S. Exploration & Production	\$100.00	\$95.81	\$101.39	\$133.68	\$119.27	\$90.97

The performance graph above is furnished and not filed for purposes of Section 18 of the Securities Exchange Act of 1934 and will not be incorporated by reference into any registration statement filed under the Securities Act of 1933 unless specifically identified therein as being incorporated therein by reference. The performance graph is not soliciting material subject to Regulation 14A.

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## ITEM 6. SELECTED FINANCIAL DATA

The following table summarizes our selected consolidated financial data for the periods indicated. This information should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7, and the Consolidated Financial Statements and related Notes in Item 8.

	Year Ended December 31,				
(In thousands, except per share amounts)	2015	2014	2013	2012	2011
<b>Statement of Operations Data</b>					
Operating revenues	\$1,357,150	\$2,173,011	\$1,746,278	\$1,204,546	\$979,864
Impairment of oil and gas properties <sup>(1)</sup>	114,875	771,037	—	—	—
Gain (loss) on sale of assets <sup>(2)</sup>	3,866	17,120	21,351	50,635	63,382
Income (loss) from operations	(90,362)	106,186	551,582	306,186	306,850
Net income (loss)	(113,891)	104,468	279,773	131,730	122,408
Basic earnings (loss) per share	\$(0.28)	\$0.25	\$0.67	\$0.31	\$0.29
Diluted earnings (loss) per share	\$(0.28)	\$0.25	\$0.66	\$0.31	\$0.29
Dividends per common share	\$0.08	\$0.08	\$0.06	\$0.04	\$0.03
	December 31,				
(In thousands)	2015	2014	2013	2012	2011
<b>Balance Sheet Data</b>					
Properties and equipment, net	\$4,976,879	\$4,925,711	\$4,546,227	\$4,310,977	\$3,934,584
Total assets	5,261,899	5,437,716	4,981,080	4,616,313	4,331,493
Current portion of long-term debt	20,000	—	—	75,000	—
Long-term debt	2,005,000	1,752,000	1,147,000	1,012,000	950,000
Stockholders' equity	2,009,188	2,142,733	2,204,602	2,131,447	2,104,768

(1) For discussion of impairment of oil and gas properties, refer to Note 3 of the Notes to the Consolidated Financial Statements.

Gain on sale of assets in 2014 includes a \$19.9 million gain from the sale of certain proved and unproved oil and gas properties located in east Texas. Gain on sale of assets in 2013 includes a \$19.4 million gain from the sale of certain proved and unproved oil and gas properties located in the Oklahoma and Texas panhandles, and a \$17.5 million loss from the sale of certain proved and unproved oil and gas properties located in Oklahoma, Texas and Kansas and an aggregate net gain of \$19.5 million from the sale of various other oil and gas properties during the year. Gain on sale of assets in 2012 includes a \$67.0 million gain from the sale of certain Pearsall Shale undeveloped leaseholds in south Texas and an \$18.2 million loss from the sale of certain proved oil and gas properties located in south Texas. Gain on sale of assets in 2011 includes a \$34.2 million gain from the sale of certain Haynesville and Bossier Shale oil and gas properties and an aggregate net gain of \$29.2 million from the sale of various other properties during the year.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion is intended to assist you in understanding our results of operations and our present financial condition. Our Consolidated Financial Statements and the accompanying Notes to the Consolidated Financial Statements included elsewhere in this Form 10-K contain additional information that should be referred to when reviewing this material.

OVERVIEW

Operating Overview

Operating results for the year ended December 31, 2015 compared to the year ended December 31, 2014 are as follows:

Equivalent production in 2015 increased 70.7 Bcfe, or 13%, from 531.8 Bcfe, or 1.5 Bcfe per day, in 2014 to 602.5 Bcfe, or 1.7 Bcfe per day, in 2015.

Natural gas production increased 57.9 Bcf, or 11%, from 508.0 Bcf in 2014 to 566.0 Bcf in 2015, primarily the result of higher production in the Marcellus Shale associated with our drilling program in Pennsylvania.

Crude oil/condensate/NGL production increased 2.1 Mmbbls, or 54%, from 4.0 Mmbbls in 2014 to 6.1 Mmbbls in 2015, as a result of higher production associated with our oil-focused Eagle Ford Shale drilling program in south Texas and production associated with the south Texas asset acquisitions in the fourth quarter of 2014.

Average realized natural gas price for 2015 was \$2.15 per Mcf, 34% lower than the \$3.28 per Mcf price realized in 2014.

Average realized crude oil price for 2015 was \$45.72 per Bbl, 48% lower than the \$88.50 per Bbl price realized in 2014.

Drilled 142 gross wells (132.8 net) with a success rate of 100.0% in 2015 compared to 200 gross wells (176.5 net) with a success rate of 99.5% in 2014.

Total capital spending was approximately \$776.9 in 2015 compared to \$1.6 billion (excluding the south Texas asset acquisitions) in 2014.

Average rig count during 2015 was approximately 3.5 rigs in the Marcellus Shale and approximately 1.9 rigs in the Eagle Ford Shale, compared to an average rig count in the Marcellus Shale of approximately 6.0 rigs and approximately 2.8 rigs in the Eagle Ford Shale during 2014.

Market Conditions and Commodity Prices

Our financial results depend on many factors, particularly the price of natural gas and crude oil and our ability to market our production on economically attractive terms. Commodity prices are affected by many factors outside of our control, including changes in market supply and demand, which are impacted by weather conditions, pipeline capacity constraints, inventory storage levels, basis differentials and other factors. In addition, our realized prices are further impacted by our derivative and hedging activities. As a result, we cannot accurately predict future commodity prices and, therefore, we cannot determine with any degree of certainty what effect increases or decreases in these prices will have on our capital program, production volumes or revenues. Location differentials have increased in certain regions, such as in the Appalachian region, resulting in further declines in natural gas prices. We expect natural gas and crude oil prices to remain volatile. In addition to production volumes and commodity prices, finding and developing sufficient amounts of natural gas and crude oil reserves at economical costs are critical to our long-term success. See "Risk Factors—Natural gas and oil prices fluctuate widely, and low prices for an extended period would likely have a material adverse impact on our business" and "Risk Factors—Our future performance depends on our ability to find or acquire additional natural gas and oil reserves that are economically recoverable" in Item 1A. We account for our derivative instruments on a mark-to-market basis with changes in fair value recognized in operating revenues in the Consolidated Statement of Operations. As a result of these mark-to-market adjustments associated with our derivative instruments, we will likely experience volatility in our earnings due to commodity price volatility. Refer to "Impact of Derivative Instruments on Operating Revenues" below and Note 6 to the Consolidated Financial Statements for more information.

Commodity prices continued to decline during 2015 compared to 2014. As a result of the continued decline in commodity prices, we tested the recoverability of the carrying value of all of our oil and gas properties and recorded

an impairment charge of approximately \$114.9 million associated with certain non-core fields in south Texas, east Texas and Louisiana. Based on the results of our impairment test in the fourth quarter of 2015, we do not believe that further impairment of our oil and gas

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properties is reasonably likely to occur in the near future; however, in the event that commodity prices significantly decline from current levels, additional impairments of our oil and gas properties may be required.

We believe we are well-positioned to manage the challenges presented in the lower commodity pricing environment, and we can endure the current cyclical downturn in the oil and gas industry and the continued volatility in current and future commodity prices by:

- Continuing to exercise discipline in our capital program by reducing our capital expenditures and number of wells drilled compared to the prior year.

- Continuing to optimize our drilling, completion and operational efficiencies, resulting in lower operating costs per unit of production.

- Continuing to manage our balance sheet with sufficient availability under our revolving credit facility to meet our capital requirements and maintain compliance with our debt covenants.

- Continuing to manage price risk by strategically hedging our natural gas and crude oil production.

### FINANCIAL CONDITION

#### Capital Resources and Liquidity

Our primary sources of cash in 2015 were from funds generated from the sale of natural gas and oil production and net borrowings under our revolving credit facility. These cash flows were primarily used to fund our capital expenditures (including contributions to our equity method investments), interest payments on debt and payment of dividends. See below for additional discussion and analysis of cash flow.

Effective April 17, 2015, we amended our revolving credit facility to extend the maturity date from May 2017 to April 2020 and to change the mechanism under which interest rate margins are determined for outstanding borrowings. The revolving credit facility, as amended, provides for a borrowing base of \$3.4 billion and commitments of \$1.8 billion.

The amended credit facility also provides for an accordion feature, which allows us to increase the available credit line up to an additional \$500 million if one or more of the existing or new banks agree to provide such increased amount.

The borrowing base is redetermined annually under the terms of the revolving credit facility on April 1. In addition, either we or the banks may request an interim redetermination twice a year or in conjunction with certain acquisitions or sales of oil and gas properties.

Due to the significant decrease in natural gas and crude oil prices during 2015 and the related impact on certain of our financial covenants, effective December 31, 2015, we amended the agreements governing our senior notes and revolving credit facility to adjust certain financial covenants and to include an additional financial covenant. In addition, the amendments to our senior notes provide for potential increases in coupon rates ranging from 0 to 125 basis points depending on the asset coverage and leverage ratios at the end of the respective quarterly period. In addition, the amendment to our revolving credit facility increased the maximum margins we pay on borrowings under the credit facility. See Note 5 of the Notes to the Consolidated Financial Statements for further details regarding the amendments.

As a result of the recent decline in commodity prices, our borrowing base and related commitments under the revolving credit facility could be reduced in the future. Unless commodity prices continue to decline significantly from current levels, we do not believe that any such reductions would have a significant impact on our ability to service our debt and fund our drilling program and related operations.

We strive to manage our debt at a level below the available credit line in order to maintain borrowing capacity. Our revolving credit facility includes a covenant limiting our total debt. Management believes that, with internally generated cash flow and availability under our revolving credit facility, we have the capacity to finance our spending plans.

At December 31, 2015 and 2014, we had \$413.0 million and \$140.0 million of borrowings outstanding under our revolving credit facility, respectively. As of December 31, 2015, we had unused commitments of \$1.4 billion under our revolving credit facility.

We were in compliance with all restrictive financial covenants, as amended, for both the revolving credit facility and senior notes as of December 31, 2015. See Note 5 of the Notes to the Consolidated Financial Statements for further details regarding our debt.



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## Cash Flows

Our cash flows from operations, investing activities and financing activities are as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Cash flows provided by operating activities	\$740,737	\$1,236,435	\$1,024,526
Cash flows used in investing activities	(993,334 )	(1,664,840 )	(918,207 )
Cash flows provided by (used in) financing activities	232,157	425,959	(113,655 )
Net decrease in cash and cash equivalents	\$(20,440 )	\$(2,446 )	\$(7,336 )

Operating Activities. Operating cash flow fluctuations are substantially driven by commodity prices and changes in our production volumes and operating expenses. Prices for natural gas and crude oil have historically been volatile, including demand for natural gas and crude oil, pipeline infrastructure constraints and seasonal influences. In addition, fluctuations in cash flow may result in an increase or decrease in our capital spending.

Our working capital is substantially influenced by the variables discussed above and fluctuates based on the timing and amount of borrowings and repayments under our revolving credit facility, the timing of cash collections and payments on our trade accounts receivable and payable, respectively, and changes in the fair value of our commodity derivative activity. From time to time, our working capital will reflect a deficit, while at other times it will reflect a surplus. This fluctuation is not unusual. At December 31, 2015 and 2014, we had working capital deficits of \$90.8 million and \$85.6 million, respectively. We believe we have adequate availability under our revolving credit facility and liquidity available to meet our working capital requirements.

Net cash provided by operating activities in 2015 decreased by \$495.7 million when compared to 2014. This decrease was primarily due to lower operating revenues and higher operating expenses (excluding non-cash expenses), partially offset by favorable changes in working capital and other assets and liabilities. The decrease in operating revenues was primarily due to a decrease in realized natural gas and crude oil prices, partially offset by an increase in equivalent production. Average realized natural gas and crude oil prices decreased by 34% and 48%, respectively, for 2015 compared to 2014. Equivalent production volumes increased by 13% for 2015 over 2014 as a result of higher natural gas production in the Marcellus Shale and higher oil production in the Eagle Ford Shale.

Net cash provided by operating activities in 2014 increased by \$211.9 million over 2013. This increase was primarily due to higher operating revenues, partially offset by higher operating expenses (excluding non-cash expenses) and an increase in working capital. The increase in operating revenues was primarily due to an increase in equivalent production, partially offset by a decrease in realized natural gas and crude oil prices. Equivalent production volumes increased by 29% for 2014 compared to 2013 as a result of higher natural gas in the Marcellus Shale and oil production in the Eagle Ford Shale. Average realized natural gas and crude oil prices decreased by 8% and 12%, respectively, for 2014 compared to 2013.

See "Results of Operations" for additional information relative to commodity price, production and operating expense fluctuations. We are unable to predict future commodity prices and, as a result, cannot provide any assurance about future levels of net cash provided by operating activities.

Investing Activities. Cash flows used in investing activities decreased by \$671.5 million from 2014 to 2015 due to a decrease of \$524.0 million in capital expenditures, \$198.4 million lower acquisition costs and a \$9.0 million decrease in capital contributions associated with our equity method investments. These decreases were partially offset by a \$31.8 million decrease in proceeds from the sale of assets and \$28.1 million of changes in restricted cash balances. Cash flows used in investing activities increased by \$746.6 million from 2013 to 2014 due to an increase of \$284.9 million in capital expenditures, a decrease of \$284.0 million in proceeds from the sale of assets, a \$214.7 million increase in acquisition expenditures related to the acquisitions of Eagle Ford Shale assets that closed in the fourth quarter of 2014, and a \$19.2 million increase in capital contributions associated with our equity method investments. Partially offsetting the increases was a \$56.2 million decrease in restricted cash related to the release of funds by our qualified intermediary due to a lapse in the statutory holding period and the funding of oil and gas lease acquisitions during 2014 associated with like-kind exchange transactions pursuant to Section 1031 of the Internal Revenue Code.

Financing Activities. Cash flows provided by financing activities decreased by \$193.8 million from 2014 to 2015 due to \$332.0 million of lower net borrowings and an increase in cash paid for capitalized debt issuance costs of \$2.2



million related to the amendment of our credit facility in April 2015. These decreases were partially offset by lower treasury stock repurchases

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of \$138.9 million as no shares were repurchased in 2015 and a decrease of \$1.4 million in tax benefits associated with our stock-based compensation.

Cash flows provided by financing activities increased by \$539.6 million from 2013 to 2014 due to \$545.0 million of higher net borrowings and a decrease in share repurchases of \$25.8 million, partially offset by a decrease of \$20.3 million in tax benefits associated with our stock-based compensation, an \$8.0 million increase in dividends paid and an increase in cash paid for capitalized debt issuance costs of \$2.9 million.

**Capitalization**

Information about our capitalization is as follows:

(Dollars in thousands)	December 31,	
	2015	2014
Debt <sup>(1)</sup>	\$2,025,000	\$1,752,000
Stockholders' equity	2,009,188	2,142,733
Total capitalization	\$4,034,188	\$3,894,733
Debt to total capitalization	50	% 45
Cash and cash equivalents	\$514	\$20,954

(1) Includes \$20.0 million of current portion of long-term debt at December 31, 2015 and \$413.0 million and \$140.0 million of borrowings outstanding under our revolving credit facility at December 31, 2015 and 2014, respectively. In 2015, we did not repurchase any shares of common stock. For the year ended December 31, 2014, we repurchased 4.3 million shares for a total cost of \$138.9 million. During 2015 and 2014, we also paid dividends of \$33.1 million (\$0.08 per share) and \$33.3 million (\$0.08 per share) on our common stock, respectively.

**Capital and Exploration Expenditures**

On an annual basis, we generally fund most of our capital expenditures, excluding any significant property acquisitions, with cash generated from operations and, if required, borrowings under our revolving credit facility. We budget these expenditures based on our projected cash flows for the year. In 2015, capital expenditures exceeded our cash flow from operations, requiring us to fund a portion of our capital expenditures through borrowings under our revolving credit facility.

The following table presents major components of our capital and exploration expenditures:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Capital expenditures			
Drilling and facilities	\$729,994	\$1,454,288	\$1,096,705
Leasehold acquisitions	20,097	73,962	71,106
Property acquisitions	16,312	214,737	128
Pipeline and gathering	2,373	1,287	1,222
Other	4,739	14,791	8,816
	773,515	1,759,065	1,177,977
Exploration expenditures <sup>(1)</sup>	27,460	28,746	18,165
Total	\$800,975	\$1,787,811	\$1,196,142

(1) Exploration expenditures include \$3.3 million, \$7.8 million and \$0.4 million of exploratory dry hole expenditures in 2015, 2014 and 2013, respectively.

We plan to drill approximately 30 gross wells (30.0 net) in 2016 compared to 142 gross wells (132.8 net) drilled in 2015. In 2016, our drilling program includes approximately \$325.0 million in total capital expenditures. We will continue to assess the natural gas and crude oil price environment along with our liquidity position and may increase or decrease our capital

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expenditures accordingly. Due to the current commodity price environment, our overall capital spending in 2016 is expected to be lower than our expenditures in 2015.

**Contractual Obligations**

We have various contractual obligations in the normal course of our operations. A summary of our contractual obligations as of December 31, 2015 are set forth in the following table:

(In thousands)	Total	Payments Due by Year			
		2016	2017 to 2018	2019 to 2020	2021 & Beyond
Debt	\$2,025,000	\$20,000	\$312,000	\$513,000	\$1,180,000
Interest on debt <sup>(1)</sup>	547,866	88,927	168,358	121,217	169,364
Transportation and gathering agreements <sup>(2)</sup>	1,928,653	136,468	329,932	273,347	1,188,906
Drilling rig commitments <sup>(2)</sup>	7,749	7,749	—	—	—
Operating leases <sup>(2)</sup>	44,090	7,471	13,585	12,058	10,976
Equity investment contribution commitments <sup>(3)</sup>	269,213	146,524	122,689	—	—
Total contractual obligations	\$4,822,571	\$407,139	\$946,564	\$919,622	\$2,549,246

(1) Interest payments have been calculated utilizing the rates associated with our senior notes outstanding at December 31, 2015. Interest payments on our revolving credit facility were calculated by assuming that the December 31, 2015 outstanding balance of \$413.0 million will be outstanding through the April 2020 maturity date and that our senior notes will remain outstanding through their respective maturity dates. A constant interest rate of 2.5% was assumed for the interest payments on our revolving credit facility, which was the December 31, 2015 weighted-average interest rate. Actual results will differ from these estimates and assumptions.

(2) For further information on our obligations under transportation and gathering agreements, drilling rig commitments and operating leases, see Note 9 of the Notes to the Consolidated Financial Statements.

(3) For further information on our equity investment contribution commitments, see Note 4 of the Notes to the Consolidated Financial Statements.

Amounts related to our asset retirement obligation are not included in the above table given the uncertainty regarding the actual timing of such expenditures. The total amount of our asset retirement obligation at December 31, 2015 was \$145.6 million. See Note 8 of the Notes to the Consolidated Financial Statements for further details.

We have no off-balance sheet debt or other similar unrecorded obligations.

**Potential Impact of Our Critical Accounting Policies**

Our significant accounting policies are described in Note 1 to the Consolidated Financial Statements. The preparation of the Consolidated Financial Statements, which is in accordance with accounting principles generally accepted in the United States, requires management to make certain estimates and judgments that affect the amounts reported in our financial statements and the related disclosures of assets and liabilities. The following accounting policies are our most critical policies requiring more significant judgments and estimates. We evaluate our estimates and assumptions on a regular basis. Actual results could differ from those estimates.

**Successful Efforts Method of Accounting**

We follow the successful efforts method of accounting for our oil and gas producing activities. Acquisition costs for proved and unproved properties are capitalized when incurred. Judgment is required to determine the proper classification of wells designated as developmental or exploratory, which will ultimately determine the proper accounting treatment of costs incurred. Exploration costs, including geological and geophysical costs, the costs of carrying and retaining unproved properties and exploratory dry hole costs are expensed. Development costs, including costs to drill and equip development wells and successful exploratory drilling costs to locate proved reserves are capitalized.

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### Oil and Gas Reserves

The process of estimating quantities of proved reserves is inherently imprecise, and the reserve data included in this document are only estimates. The process relies on interpretations and judgment of available geological, geophysical, engineering and production data. The extent, quality and reliability of this technical data can vary. The process also requires certain economic assumptions, some of which are mandated by the SEC, such as natural gas and crude oil prices. Additional assumptions include drilling and operating expenses, capital expenditures, taxes and availability of funds. Any significant variance in the interpretations or assumptions could materially affect the estimated quantity and value of our reserves and can change substantially over time. Periodic revisions to the estimated reserves and future cash flows may be necessary as a result of reservoir performance, drilling activity, commodity prices, fluctuations in operating expenses, technological advances, new geological or geophysical data or other economic factors.

Accordingly, reserve estimates are generally different from the quantities ultimately recovered. We cannot predict the amounts or timing of such future revisions.

Our reserves have been prepared by our petroleum engineering staff and audited by Miller and Lents, independent petroleum engineers, who in their opinion determined the estimates presented to be reasonable in the aggregate. For more information regarding reserve estimation, including historical reserve revisions, refer to the Supplemental Oil and Gas Information to the Consolidated Financial Statements included in Item 8.

Our rate of recording depreciation, depletion and amortization (DD&A) expense is dependent upon our estimate of proved and proved developed reserves, which are utilized in our unit-of-production calculation. If the estimates of proved reserves were to be reduced, the rate at which we record DD&A expense would increase, reducing net income. Such a reduction in reserves may result from lower market prices, which may make it uneconomic to drill and produce higher cost fields. A 5% positive or negative revision to proved reserves would result in a decrease of \$0.04 per Mcfe and an increase of \$0.05 per Mcfe, respectively, on our DD&A rate. Revisions in significant fields may individually affect our DD&A rate. It is estimated that a positive or negative reserve revision of 10% in one of our most productive fields would result in a decrease of \$0.05 per Mcfe and an increase of \$0.06 per Mcfe, respectively, on our total DD&A rate. These estimated impacts are based on current data, and actual events could require different adjustments to our DD&A rate.

In addition, a decline in proved reserve estimates may impact the outcome of our impairment test under applicable accounting standards. Due to the inherent imprecision of the reserve estimation process, risks associated with the operations of proved producing properties and market sensitive commodity prices utilized in our impairment analysis, management cannot determine if an impairment is reasonably likely to occur in the future. Based on the results of our impairment test of all of our oil and gas properties and the resulting impairment charge of approximately \$114.9 million in the fourth quarter of 2015, we do not believe that further impairment of our oil and gas properties is reasonably likely to occur in the near future; however, in the event that commodity prices significantly decline from current levels, additional impairments of our oil and gas properties may be required.

### Carrying Value of Oil and Gas Properties

We evaluate our proved oil and gas properties for impairment on a field-by-field basis whenever events or changes in circumstances indicate an asset's carrying amount may not be recoverable. We compare expected undiscounted future cash flows to the net book value of the asset. If the future undiscounted expected cash flows, based on our estimate of future natural gas and crude oil prices, operating costs and anticipated production from proved reserves and risk-adjusted probable and possible reserves, are lower than the net book value of the asset, the capitalized cost is reduced to fair value. Commodity pricing is estimated by using a combination of assumptions management uses in its budgeting and forecasting process, historical and current prices adjusted for geographical location and quality differentials, as well as other factors that management believes will impact realizable prices. In the event that commodity prices significantly decline, management would test the recoverability of the carrying value of its oil and gas properties and, if necessary, record an impairment charge. Fair value is calculated by discounting the future cash flows. The discount factor used is based on rates utilized by market participants that are commensurate with the risks inherent in the development and production of the underlying natural gas and oil.

Unproved oil and gas properties are assessed periodically for impairment on an aggregate basis through periodic updates to our undeveloped acreage amortization based on past drilling and exploration experience, our expectation of

converting leases to held by production and average property lives. Average property lives are determined on a geographical basis and based on the estimated life of unproved property leasehold rights. Historically, the average property life in each of the geographical areas has not significantly changed and generally range from three to five years. The commodity price environment may impact the capital available for exploration projects as well as development drilling. We have considered these impacts when determining the amortization rate of our undeveloped acreage, especially in exploratory areas. If the average unproved property life

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decreases or increases by one year, the amortization would increase by approximately \$10.5 million or decrease by approximately \$8.0 million, respectively, per year.

As these properties are developed and reserves are proved, the remaining capitalized costs are subject to depreciation and depletion. If the development of these properties is deemed unsuccessful, the capitalized costs related to the unsuccessful activity is expensed in the year the determination is made. The rate at which the unproved properties are written off depends on the timing and success of our future exploration and development program.

### Asset Retirement Obligations

The majority of our asset retirement obligations (ARO) relates to the plugging and abandonment of oil and gas wells and to a lesser extent meter stations, pipelines, processing plants and compressors. We record the fair value of a liability for an asset retirement obligation in the period in which it is incurred, with the associated asset retirement cost capitalized as part of the carrying amount of the related long-lived asset. The recognition of an asset retirement obligation requires management to make assumptions that include estimated plugging and abandonment costs, timing of settlements, inflation rates and discount rate. In periods subsequent to initial measurement, the asset retirement cost is depreciated using the units-of-production method, while increases in the discounted ARO liability resulting from the passage of time (accretion expense) are reflected as depreciation, depletion and amortization expense.

### Accounting for Derivative Instruments and Hedging Activities

Under applicable accounting standards, the fair value of each derivative instrument is recorded as either an asset or liability on the balance sheet. At the end of each quarterly period, these instruments are marked-to-market. The change in fair value of derivatives not designated as hedges and the ineffective portion of the change in the fair value of derivatives designated as cash flow hedges and are recorded as a component of operating revenues in gain (loss) on derivative instruments in the Consolidated Statement of Operations. The change in the fair value of derivatives designated as cash flow hedges that are effective are recorded in accumulated other comprehensive income (loss) in stockholders' equity in the Consolidated Balance Sheet.

Our derivative contracts are measured based on quotes from our counterparties. Such quotes have been derived using an income approach that considers various inputs including current market and contractual prices for the underlying instruments, quoted forward prices for natural gas and crude oil, basis differentials, volatility factors and interest rates, such as a LIBOR curve for a similar length of time as the derivative contract term, as applicable. These estimates are verified using relevant NYMEX futures contracts or are compared to multiple quotes obtained from counterparties for reasonableness. The determination of fair value also incorporates a credit adjustment for non-performance risk. We measure the non-performance risk of our counterparties by reviewing credit default swap spreads for the various financial institutions in which we have derivative transactions, while our non-performance risk is evaluated using a market credit spread provided by one of our banks.

Our financial condition, results of operations and liquidity can be significantly impacted by changes in the market value of our derivative instruments due to volatility of natural gas and crude oil prices, both NYMEX and basis differentials.

### Income Taxes

We make certain estimates and judgments in determining our income tax expense for financial reporting purposes. These estimates and judgments include the calculation of certain deferred tax assets and liabilities that arise from differences in the timing and recognition of revenue and expenses for tax and financial reporting purposes and estimating reserves for potential adverse outcomes regarding tax positions that we have taken. We account for the uncertainty in income taxes using a recognition and measurement threshold for tax positions taken or expected to be taken in a tax return. The tax benefit from an uncertain tax position is recognized when it is more likely than not that the position will be sustained upon examination by taxing authorities based on technical merits of the position. The amount of the tax benefit recognized is the largest amount of the benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The effective tax rate and the tax basis of assets and liabilities reflect management's estimates of the ultimate outcome of various tax uncertainties.

We believe all of our deferred tax assets, net of any valuation allowances, will ultimately be realized, taking into consideration our forecasted future taxable income, which includes consideration of future operating conditions specifically related to commodity prices. If our estimates and judgments change regarding our ability to realize our

deferred tax assets, our tax provision could increase in the period it is determined that it is more likely than not it will not be realized.

Our effective tax rate is subject to variability as a result of factors other than changes in federal and state tax rates and/or changes in tax laws which could affect us. Our effective tax rate is affected by changes in the allocation of property, payroll and revenues among states in which we operate. A small change in our estimated future tax rate could have a material effect on current period earnings.

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### Contingency Reserves

A provision for contingencies is charged to expense when the loss is probable and the cost is estimable. The establishment of a reserve is based on an estimation process that includes the advice of legal counsel and subjective judgment of management. In certain cases, management's judgment is based on the advice and opinions of legal counsel and other advisors, the interpretation of laws and regulations, which can be interpreted differently by regulators and courts of laws, our experience and the experiences of other companies dealing with similar matters, and our decision on how we intend to respond to a particular matter. Actual losses can differ from estimates for various reasons, including those noted above. We monitor known and potential legal, environmental and other contingencies and make our best estimate based on the information we have. Future changes in facts and circumstances not currently foreseeable could result in the actual liability exceeding the estimated ranges of loss and amounts accrued.

### Stock-Based Compensation

We account for stock-based compensation under the fair value method of accounting in accordance with applicable accounting standards. Under the fair value method, compensation cost is measured at the grant date for equity-classified awards and remeasured each reporting period for liability-classified awards based on the fair value of an award and is recognized over the service period, which is generally the vesting period. To calculate fair value, we use either a Monte Carlo or Black-Scholes valuation model, as determined by the specific provisions of the award. The use of these models requires significant judgment with respect to expected life, volatility and other factors. Stock-based compensation cost for all types of awards is included in general and administrative expense in the Consolidated Statement of Operations. See Note 13 of the Notes to the Consolidated Financial Statements for a full discussion of our stock-based compensation.

### Recently Adopted Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2015-17, Balance Sheet Classification of Deferred Taxes. The amendments in this update require deferred tax liabilities and assets to be classified as noncurrent. The guidance is effective for interim and annual periods beginning after December 15, 2016, however early adoption is allowed. This update may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. We elected to early adopt this standard on a prospective basis and, as a result, there have been no adjustments made to prior periods. The adoption of this guidance only affected our financial position and did not have an impact on our results of operations or cash flows.

### Recently Issued Accounting Pronouncements

In March 2015, the FASB issued ASU No. 2015-03, Simplifying the Presentation of Debt Issuance Costs. The amendments in this update require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. In August 2015, the FASB issued ASU No. 2015-15, Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements. The update provides authoritative guidance for debt issuance costs related to line-of-credit arrangements, noting the SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The guidance is effective for interim and annual periods beginning after December 15, 2015. We do not believe the adoption of this guidance will have a material effect on our financial position, results of operations or cash flows.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, as a new Topic, Accounting Standards Codification Topic 606. The new revenue recognition standard provides a five-step analysis of transactions to determine when and how revenue is recognized. The core principle of the guidance is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606), which deferred the effective date of ASU No. 2014-09 by one year, making the new standard effective for interim and annual periods beginning after December 15, 2017. This ASU can be adopted either retrospectively or as a cumulative-effect



adjustment as of the date of adoption; however, entities reporting under U.S. GAAP are not permitted to adopt the standard earlier than the original effective date for public entities (that is, no earlier than 2017 for calendar year-end entities). We are currently evaluating the effect that adopting this guidance will have on our financial position, results of operations or cash flows.

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OTHER ISSUES AND CONTINGENCIES

Regulations. Our operations are subject to various types of regulation by federal, state and local authorities. See "Regulation of Oil and Natural Gas Exploration and Production," "Natural Gas Marketing, Gathering and Transportation," "Federal Regulation of Swap Transactions," "Federal Regulation of Petroleum," "Pipeline Safety Regulation," and "Environmental and Safety Regulations" in the "Other Business Matters" section of Item 1 for a discussion of these regulations.

Restrictive Covenants. Our ability to incur debt and to make certain types of investments is subject to certain restrictive covenants in our various debt instruments. Due to the significant decrease in oil and natural gas prices during 2015 and the related impact on certain of our financial covenants, effective December 31, 2015, we amended the agreements governing our senior notes and revolving credit facility to adjust certain financial covenants and to include an additional financial covenant. Among other requirements, our senior note agreements and our revolving credit agreement specify a minimum annual coverage ratio of consolidated cash flow to interest expense for the trailing four quarters of 2.8 to 1.0, a minimum asset coverage ratio of the present value of proved reserves before income taxes plus adjusted cash to indebtedness and other liabilities of 1.25 to 1.0, which increases back to the pre-amended ratio of 1.75 to 1.0 beginning on January 1, 2018, and a leverage ratio of debt to consolidated EBITDAX of 4.75 to 1.0 through and including December 31, 2016. Under the terms of the respective agreements, the leverage ratio will be adjusted to 4.25 to 1.0 through and including December 31, 2017 and 3.5 to 1.0 beginning on March 31, 2018 or until we maintain a leverage ratio below 3.0 to 1.0 for two consecutive fiscal quarters on or after December 31, 2017 or we receive an investment grade rating by Standard & Poor's Ratings Services (S&P) or Moody's Investor Service, Inc. (Moody's), at which time we will no longer be subject to this covenant. Our revolving credit agreement also requires us to maintain a minimum current ratio of 1.0 to 1.0. At December 31, 2015, we were in compliance with all restrictive financial covenants in both our senior note agreements and our revolving credit agreement.

Operating Risks and Insurance Coverage. Our business involves a variety of operating risks. See "Risk Factors—We face a variety of hazards and risks that could cause substantial financial losses" in Item 1A. In accordance with customary industry practice, we maintain insurance against some, but not all, of these risks and losses. The occurrence of any of these events not fully covered by insurance could have a material adverse effect on our financial position, results of operations and cash flows. The costs of these insurance policies are somewhat dependent on our historical claims experience, the areas in which we operate and market conditions.

Commodity Pricing and Risk Management Activities. Our revenues, operating results, financial condition and ability to borrow funds or obtain additional capital depend substantially on prevailing prices for natural gas and crude oil. Further declines in natural gas and crude oil prices may have a material adverse effect on our financial condition, liquidity, ability to obtain financing and operating results. Lower natural gas and crude oil prices also may reduce the amount of natural gas and crude oil that we can produce economically. Historically, natural gas and crude oil prices have been volatile, with prices fluctuating widely, and they are likely to continue to be volatile. Depressed prices in the future would have a negative impact on our future financial results. In particular, substantially lower prices would significantly reduce revenue and could potentially trigger an impairment of our oil and gas properties or a violation of certain financial debt covenants. Because our reserves are predominantly natural gas (approximately 96% of equivalent proved reserves), changes in natural gas prices may have a more significant impact on our financial results than oil prices.

The majority of our production is sold at market responsive prices. Generally, if the related commodity index declines, the price that we receive for our production will also decline. Furthermore, we have experienced widening basis differentials in certain regions, such as in the Appalachian region, resulting in further declines in natural gas prices. Therefore, the amount of revenue that we realize is determined by certain factors that are beyond our control. However, management may mitigate this price risk on a portion of our anticipated production with the use of commodity derivatives. Most recently, we have used commodity derivatives such as collar and swap arrangements to reduce the impact of declining prices on our revenue. Under both arrangements, there is also a risk that the movement of index prices may result in our inability to realize the full benefit of an improvement in market conditions.

RESULTS OF OPERATIONS

2015 and 2014 Compared

We reported a net loss for 2015 of \$113.9 million, or \$0.28 per share, compared to net income for 2014 of \$104.5 million, or \$0.25 per share. The decrease in net income was primarily due to lower operating revenues, higher operating and interest expenses and a decrease in gain on sale of assets. These decreases were partially offset by lower impairments on oil and gas properties.

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## Revenue, Price and Volume Variances

Our revenues vary from year to year as a result of changes in commodity prices and production volumes. Below is a discussion of revenue, price and volume variances.

Revenue Variances (In thousands)	Year Ended December 31,		Variance		Percent	
	2015	2014	Amount			
Natural gas	\$1,025,044	\$1,590,625	\$(565,581)	(36)	)%	
Crude oil and condensate	248,211	313,889	(65,678)	(21)	)%	
Gain (loss) on derivative instruments	56,686	219,319	(162,633)	(74)	)%	
Brokered natural gas	16,383	34,416	(18,033)	(52)	)%	
Other	10,826	14,762	(3,936)	(27)	)%	
	\$1,357,150	\$2,173,011	\$(815,861)	(38)	)%	
	Year Ended December 31,		Variance		Increase	
	2015	2014	Amount	Percent	(Decrease)	
					(In thousands)	
Price Variances						
Natural gas <sup>(1)</sup>	\$1.81	\$3.13	\$(1.32)	(42)	)%	\$(747,121)
Crude oil and condensate <sup>(2)</sup>	\$45.72	\$87.48	\$(41.76)	(48)	)%	(226,729)
Total						\$(973,850)
Volume Variances						
Natural gas (Bcf)	566.0	508.0	58.0	11	%	\$181,540
Crude oil and condensate (Mbbbl)	5,429	3,588	1,841	51	%	161,051
Total						\$342,591

(1) Prices in 2014 include the impact of cash flow hedge settlements during the period, which decreased the price by \$0.28 per Mcf. There was no impact in 2015.

(2) Prices in 2014 include the impact of cash flow hedge settlements during the period, which decreased the price by \$0.17 per Bbl. There was no impact in 2015.

## Natural Gas Revenues

The decrease in natural gas revenues of \$565.6 million was due to lower natural gas prices, partially offset by higher production associated with the positive results of our Marcellus Shale drilling program in Pennsylvania.

## Crude Oil and Condensate Revenues

The decrease in crude oil and condensate revenues of \$65.7 million was due to lower crude oil prices, partially offset by higher production. The increase in production was a result of our oil-focused Eagle Ford Shale drilling program in south Texas and production associated with the south Texas assets acquired in the fourth quarter of 2014.

## Gain (Loss) on Derivative Instruments

Effective April 1, 2014, we elected to discontinue hedge accounting on a prospective basis. Subsequent to April 1, 2014, our derivative instruments were accounted for on a mark-to-market basis. Changes in fair value and cash settlements of derivative instruments are recognized in operating revenues in the Consolidated Statement of Operations.

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## Impact of Derivative Instruments on Operating Revenues

(In thousands)	Year Ended December 31,	
	2015	2014
Cash received (paid) on settlement of derivative instruments		
Natural gas	\$—	\$(143,577 )
Crude oil and condensate	—	(626 )
Gain (loss) on derivative instruments	194,289	81,716
	\$194,289	\$(62,487 )
Non-cash gain (loss) on derivative instruments		
Gain (loss) on derivative instruments	(137,603 )	137,603
	\$56,686	\$75,116

## Brokered Natural Gas

	Year Ended December 31,		Variance		Price and Volume Variances (In thousands)
	2015	2014	Amount	Percent	
Brokered Natural Gas Sales					
Sales price (\$/Mcf)	\$ 2.83	\$ 4.65	\$(1.82 )	(39 )%	\$(10,527 )
Volume brokered (Mmcf)	x 5,784	x 7,402	(1,618 )	(22 )%	(7,506 )
Brokered natural gas (In thousands)	\$ 16,383	\$ 34,416			\$(18,033 )
Brokered Natural Gas Purchases					
Purchase price (\$/Mcf)	\$ 2.18	\$ 4.06	\$(1.88 )	(46 )%	\$10,874
Volume brokered (Mmcf)	x 5,784	x 7,402	(1,618 )	(22 )%	6,564
Brokered natural gas (In thousands)	\$ 12,592	\$ 30,030			\$17,438
Brokered natural gas margin (In thousands)	\$ 3,791	\$ 4,386			\$(595 )

The \$0.6 million decrease in brokered natural gas margin is a result of lower brokered volumes, partially offset by a decrease in purchase price that outpaced the decrease in sales price.

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## Operating and Other Expenses

(In thousands)	Year Ended December 31,		Variance Amount	Percent	
	2015	2014			
Operating and Other Expenses					
Direct operations	\$140,814	\$145,529	\$(4,715)	(3)	)%
Transportation and gathering	427,588	349,321	78,267	22	)%
Brokered natural gas	12,592	30,030	(17,438)	(58)	)%
Taxes other than income	42,809	47,012	(4,203)	(9)	)%
Exploration	27,460	28,746	(1,286)	(4)	)%
Depreciation, depletion and amortization	622,211	632,760	(10,549)	(2)	)%
Impairment of oil and gas properties	114,875	771,037	(656,162)	(85)	)%
General and administrative	69,444	82,590	(13,146)	(16)	)%
	\$1,457,793	\$2,087,025	\$(629,232)	(30)	)%
Earnings (loss) on equity method investments	\$6,415	\$3,080	\$3,335	108	)%
Gain (loss) on sale of assets	3,866	17,120	(13,254)	(77)	)%
Interest expense	96,911	73,785	23,126	31	)%
Income tax expense (benefit)	(73,382)	(72,067)	1,315	2	)%

Total costs and expenses from operations decreased by \$629.2 million from 2014 to 2015. The primary reasons for this fluctuation are as follows:

Direct operations decreased \$4.7 million largely due to cost reductions from suppliers, improved operational efficiencies and lower workover and plugging and abandonment expenses in 2015 compared to 2014. These decreases were partially offset by higher operating costs associated with the south Texas assets acquired in the fourth quarter of 2014.

Transportation and gathering increased \$78.3 million due to higher throughput as a result of higher Marcellus Shale production, higher transportation rates and the commencement of various transportation and gathering agreements throughout 2014.

Brokered natural gas decreased \$17.4 million from 2014 to 2015. See the preceding table titled "Brokered Natural Gas" for further analysis.

Taxes other than income decreased \$4.2 million due to \$5.9 million lower production taxes resulting from lower crude oil and condensate revenues and \$0.8 million lower drilling impact fees due to a decrease in our Marcellus Shale drilling activities. These decreases were partially offset by \$2.0 million higher ad valorem taxes due to increased activity and the assets acquired in the fourth quarter of 2014 in south Texas and \$0.6 million higher franchise taxes.

Exploration decreased \$1.3 million as a result of lower exploratory dry hole costs of \$4.5 million and \$2.4 million lower geophysical and geological and other exploration expenses due to reduced activity. These decreases were partially offset by a \$5.1 million charge related to the release of certain drilling rig contracts in south Texas in the first half of 2015.

Depreciation, depletion and amortization decreased \$10.5 million, of which \$117.3 million was due to a lower DD&A rate of \$0.93 per Mcfe for 2015 compared to \$1.13 per Mcfe for 2014, partially offset by \$79.9 million due to higher equivalent production volumes. The lower DD&A rate was primarily due to lower cost reserve additions associated with our Marcellus Shale drilling program and the impairment charge recorded in the fourth quarter of 2014 associated with higher DD&A rate fields. In addition, amortization of unproved properties increased \$24.0 million as a result of ongoing evaluation of our unproved properties and the acquisition of undeveloped leaseholds in south Texas in late 2014. Accretion expense increased \$1.8 million due to the acquisition of proved properties in south Texas in late 2014 and an increase in asset retirement obligations as a result of revisions of previous estimates recorded in fourth quarter 2014.

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Impairment of oil and gas properties was \$114.9 million in 2015 due to the impairment of certain non-core fields in south Texas, east Texas and Louisiana. The impairment of these fields was due to a significant decline in commodity prices in late 2015. In 2014, we recognized an impairment of oil and gas properties of \$771.0 million related to certain non-core fields, primarily in east Texas. The impairment of these fields was due to a significant decline in commodity prices in late 2014 and management's decision not to pursue activity in these non-core areas in the then current price environments.

General and administrative decreased \$13.1 million due to lower stock-based compensation expense of \$7.8 million primarily due to a decline in the Company's stock price during 2015 compared to 2014 and \$1.8 million lower incentive compensation expense. The remaining increase and decreases in other expenses were not individually significant.

Earnings (Loss) on Equity Method Investments

The increase in equity method earnings (loss) is the result of our proportionate share of net earnings from our equity method investments in 2015 compared to 2014.

Gain (Loss) on Sale of Assets

During 2015, we recognized a net aggregate gain of \$3.9 million primarily due to the sale of certain unproved oil and gas properties in east Texas. During 2014, we recognized a net aggregate gain of \$17.1 million primarily due to the sale of certain proved and unproved oil and gas properties in east Texas.

Interest Expense

Interest expense increased \$23.1 million due to \$24.1 million of higher interest expense associated with our private placement in September 2014 of \$925 million aggregate principal amount of senior notes with a weighted-average interest rate of 3.65% and higher commitment fees on the unused portion of our revolving credit facility of \$1.0 million. These increases were partially offset by a decrease in interest expense of \$1.7 million associated with our revolving credit facility due to a decrease in weighted-average borrowings based on daily balances of approximately \$347.2 million compared to approximately \$410.0 million during 2015 and 2014, respectively.

Income Tax Expense (Benefit)

Income tax benefit increased \$1.3 million due to lower pretax income, partially offset by a higher effective tax rate. The effective tax rates for 2015 and 2014 were 39.2% and (222.4)%, respectively. The overall effective tax rate for 2014 was significantly lower due to a change in our effective state income tax rates based on updated state apportionment factors in states in which we operate. The 2014 decrease in our state apportionment factors was primarily driven by a shift in the sourcing of revenues based on the location of customers to whom we ultimately sell our natural gas in the northeast United States. The 2014 decrease in effective state income tax rates significantly affected our estimated net state deferred tax liabilities reflected in our Consolidated Balance Sheet, resulting in an income tax benefit of approximately \$87.0 million that was reflected in our provision for income taxes in 2014. We expect our 2016 effective income tax rate to be approximately 37.0%; however, this rate may fluctuate based on a number of factors, including but not limited to changes in enacted federal and/or state tax rates that occur during the year, as well as changes in the composition and location of our asset base, our employees and our customers.

2014 and 2013 Compared

We reported net income for 2014 of \$104.5 million, or \$0.25 per share, compared to net income for 2013 of \$279.8 million, or \$0.67 per share. The decrease in net income was due to higher operating expenses, partially offset by an increase in operating revenues and lower income taxes.

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## Revenue, Price and Volume Variances

Our revenues vary from year to year as a result of changes in commodity prices and production volumes. Below is a discussion of revenue, price and volume variances.

Revenue Variances (In thousands)	Year Ended December 31,		Variance		Percent	
	2014	2013	Amount			
Natural gas	\$1,590,625	\$1,405,262	\$185,363		13	%
Crude oil and condensate	313,889	291,418	22,471		8	%
Gain (loss) on derivative instruments	219,319	—	219,319		100	%
Brokered natural gas	34,416	36,450	(2,034)	) (6	(6	)%
Other	14,762	13,148	1,614		12	%
	\$2,173,011	\$1,746,278	\$426,733		24	%
	Year Ended December 31,		Variance		Increase (Decrease) (In thousands)	
	2014	2013	Amount	Percent		
Price Variances						
Natural gas <sup>(1)</sup>	\$3.13	\$3.56	\$(0.43)	(12)	)%	\$(220,273)
Crude oil and condensate <sup>(2)</sup>	\$87.48	\$101.13	\$(13.65)	(13)	)%	(48,973)
Total						\$(269,246)
Volume Variances						
Natural gas (Bcf)	508.0	394.2	113.8	29	%	\$405,636
Crude oil and condensate (Mbbbl)	3,588	2,882	706	24	%	71,444
Total						\$477,080

(1) These prices include the impact of cash flow hedge settlements, which decreased the price by \$0.28 per Mcf in 2014 and increased the price by \$0.13 per Mcf in 2013.

(2) These prices include the impact of cash flow hedge settlements, which decreased the price by \$0.17 per Bbl in 2014 and increased the price by \$1.48 per Bbl in 2013.

## Natural Gas Revenues

The increase in natural gas revenues of \$185.4 million is due to higher production, partially offset by lower natural gas prices. The increase in our production was the result of our Marcellus Shale drilling program in Pennsylvania, partially offset by lower production primarily in Oklahoma and west Texas as a result of certain non-core asset dispositions in the fourth quarter of 2013 and normal production declines in Texas and West Virginia.

## Crude Oil and Condensate Revenues

The increase in crude oil and condensate revenues of \$22.5 million is due to higher production, partially offset by lower crude oil prices. The increase in production was a result of our oil-focused Eagle Ford Shale drilling program in south Texas, partially offset by lower production associated with certain non-core asset dispositions in Oklahoma and west Texas in the fourth quarter of 2013.

## Gain (Loss) on Derivative Instruments

Effective April 1, 2014, we elected to discontinue hedge accounting on a prospective basis. Subsequent to April 1, 2014, our derivative instruments were accounted for on a mark-to-market basis. Changes in fair value are recognized currently in operating revenues in the Consolidated Statement of Operations. Gain (loss) on derivative instruments includes an \$81.7 million gain related to the change in fair value of realized cash settlements of derivative instruments previously frozen in accumulated other comprehensive income (loss) and a \$137.6 million unrealized mark-to-market gain on our commodity derivative instruments.



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## Impact of Derivative Instruments on Operating Revenues

(In thousands)	Year Ended December 31,	
	2014	2013
Cash received (paid) on settlement of derivative instruments		
Natural gas	\$(143,577	) \$52,733
Crude oil and condensate	(626	) 4,269
Gain (loss) on derivative instruments	81,716	—
	\$(62,487	) \$57,002
Non-cash gain (loss) on derivative instruments		
Gain (loss) on derivative instruments	137,603	—
	\$75,116	\$57,002

## Brokered Natural Gas

	Year Ended December 31,		Variance		Price and Volume Variances (In thousands)
	2014	2013	Amount	Percent	
Brokered Natural Gas Sales					
Sales price (\$/Mcf)	\$ 4.65	\$ 4.11	\$0.54	13	% \$3,997
Volume brokered (Mmcf)	x 7,402	x 8,874	(1,472	) (17	)% (6,031 )
Brokered natural gas (In thousands)	\$ 34,416	\$ 36,450			\$ (2,034 )
Brokered Natural Gas Purchases					
Purchase price (\$/Mcf)	\$ 4.06	\$ 3.37	\$0.69	20	% \$(5,134 )
Volume brokered (Mmcf)	x 7,402	x 8,874	(1,472	) (17	)% 5,040
Brokered natural gas (In thousands)	\$ 30,030	\$ 29,936			\$ (94 )
Brokered natural gas margin (In thousands)	\$ 4,386	\$ 6,514			\$ (2,128 )

The \$2.1 million decrease in brokered natural gas margin is a result of lower brokered volumes and an increase in purchase price that outpaced the increase in sales price.

## Operating and Other Expenses

(In thousands)	Year Ended December 31,		Variance		
	2014	2013	Amount	Percent	
Operating and Other Expenses					
Direct operations	\$ 145,529	\$ 140,856	\$4,673	3	%
Transportation and gathering	349,321	229,489	119,832	52	%
Brokered natural gas	30,030	29,936	94	—	%
Taxes other than income	47,012	43,045	3,967	9	%
Exploration	28,746	18,165	10,581	58	%
Depreciation, depletion and amortization	632,760	651,052	(18,292	) (3	)%
Impairment of oil and gas properties	771,037	—	771,037	100	%
General and administrative	82,590	104,606	(22,016	) (21	)%
	\$2,087,025	\$1,217,149	\$869,876	71	%
Earnings (loss) on equity method investments	\$3,080	\$1,102	\$1,978	179	%
Gain (loss) on sale of assets	17,120	21,351	(4,231	) (20	)%
Interest expense	73,785	66,044	7,741	12	%
Income tax expense (benefit)	(72,067	) 205,765	(277,832	) (135	)%



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Total costs and expenses from operations increased by \$869.9 million from 2013 to 2014. The primary reasons for this fluctuation are as follows:

Direct operations increased \$4.7 million largely due to higher operating costs as a result of higher production, an increase in disposal and recycling costs related to our Marcellus Shale operations and an increase in costs associated with oil processing and related fuel charges related to our Eagle Ford Shale operations. Partially offsetting these increases were lower costs associated with certain non-core assets in Oklahoma and west Texas that were sold in the fourth quarter of 2013.

Transportation and gathering increased \$119.8 million due to higher throughput as a result of higher production, slightly higher transportation rates and the commencement of various transportation and gathering agreements in late 2013 and during 2014.

Brokered natural gas increased \$0.1 million from 2013 to 2014. See the preceding table titled "Brokered Natural Gas" for further analysis.

Taxes other than income increased \$4.0 million due to \$2.5 million higher drilling impact fees associated with our Marcellus Shale drilling activities, \$2.5 million higher production taxes and \$0.9 million higher franchise and other taxes. Production taxes increased due to higher oil production in south Texas, offset by taxes associated with certain non-core assets in Oklahoma and west Texas that were sold in the fourth quarter of 2013. These increases are partially offset by a \$1.9 million decrease in ad valorem taxes.

Exploration increased \$10.6 million as a result of higher exploratory dry hole costs of \$7.5 million and higher geophysical and geological and other exploration expenses.

Depreciation, depletion and amortization decreased \$18.3 million due to a \$36.2 million decrease in amortization of unproved properties in 2014 due to lower amortization rates as a result of favorable results from our drilling program in Pennsylvania. This decrease was partially offset by a net increase in depreciation and depletion of \$14.6 million, consisting of a \$167.6 million increase due to higher equivalent production volumes for 2014 compared to 2013, partially offset by a decrease of \$153.0 million due to a lower DD&A rate of \$1.13 per Mcfe for 2014 compared to \$1.42 per Mcfe for 2013. The lower DD&A rate was primarily due to lower cost of reserve additions associated with our Marcellus Shale drilling program and the impact of the disposition of higher rate fields in Oklahoma and west Texas in the fourth quarter of 2013.

Impairment of oil and gas properties was \$771.0 million in 2014 due to the impairment of certain non-core fields, primarily in east Texas. The impairment of these fields was due to a significant decline in commodity prices in late 2014 and management's decision not to pursue activity in these non-core areas in the current price environment. There was no impairment in 2013.

General and administrative decreased \$22.0 million due to lower stock-based compensation expense of \$30.4 million associated with the mark-to-market of our liability-based performance awards and our supplemental employee incentive plan due to changes in our stock price during 2014 compared to 2013 and lower employee-related expenses. These decreases were partially offset by increases in professional fees.

Earnings (Loss) on Equity Method Investments

The increase in equity method earnings (loss) is the result of the increase in our proportionate share of net earnings from our equity method investments in 2014 compared to 2013.

Gain (Loss) on Sale of Assets

During 2014, we recognized a net aggregate gain of \$17.1 million primarily due to the sale of certain proved and unproved oil and gas properties in east Texas. During 2013, we recognized a net aggregate gain of \$21.4 million, which includes a \$19.4 million gain from the sale of certain proved and unproved oil and gas properties located in the Oklahoma and Texas panhandles and a \$17.5 million loss from the sale of certain proved and unproved oil and gas properties located in Oklahoma, Texas and Kansas. We also sold various other proved and unproved properties in 2013 for a gain of \$19.5 million.

Interest Expense

Interest expense increased \$7.7 million as a result of an increase in interest expense of \$9.7 million associated with our private placement in September 2014 of \$925 million aggregate principal amount of senior notes with a weighted-average interest rate of 3.65%, higher commitment fees of \$2.3 million and increased amortization of debt

issuance costs of \$1.1

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million. These increases were partially offset by a decrease in interest expense of \$3.1 million due to the repayment of \$75.0 million of our 7.33% weighted-average senior notes in July 2013 and \$1.1 million associated with our revolving credit facility due to a decrease in weighted-average borrowings based on daily balances of approximately \$410.0 million compared to approximately \$454.4 million during 2014 and 2013, respectively.

**Income Tax Expense (Benefit)**

Income tax expense decreased \$277.8 million due to lower pretax income and a lower effective tax rate. The effective tax rates for 2014 and 2013 were (222.4)% and 42.4%, respectively. The overall effective tax rate was lower due to a change in our effective state income tax rates based on updated state apportionment factors in states in which we operate. The decrease in our state apportionment factors was primarily driven by a shift in the sourcing of revenues based on the location of customers to whom we ultimately sell our natural gas in the northeast United States. The decrease in effective state income tax rates significantly affected our estimated net state deferred tax liabilities reflected in our Consolidated Balance Sheet, resulting in an income tax benefit of approximately \$87.0 million that was reflected in our provision for income taxes in 2014.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK****Market Risk**

Our primary market risk is exposure to natural gas and crude oil prices. Realized prices are mainly driven by worldwide prices for crude oil and spot market prices for North American natural gas production. Commodity prices can be volatile and unpredictable.

**Derivative Instruments and Risk Management Activities**

Our risk management strategy is designed to reduce the risk of price volatility for our production in the natural gas and crude oil markets through the use of commodity derivatives. A committee that consists of members of senior management oversees our risk management activities. Our commodity derivatives generally cover a portion of our production and provide only partial price protection by limiting the benefit to us of increases in prices, while protecting us in the event of price declines. Further, if any of our counterparties defaulted, this protection might be limited as we might not receive the full benefit of our commodity derivatives. Please read the discussion below as well as Note 6 of the Notes to the Consolidated Financial Statements for a more detailed discussion of our derivative and risk management activities.

Periodically, we enter into commodity derivatives, including collar and swap agreements, to protect against exposure to price declines related to our natural gas and crude oil production. Our credit agreement restricts our ability to enter into commodity derivatives other than to hedge or mitigate risks to which we have actual or projected exposure or as permitted under our risk management policies and not subjecting us to material speculative risks. All of our derivatives are used for risk management purposes and are not held for trading purposes. Under the collar agreements, if the index price rises above the ceiling price, we pay the counterparty. If the index price falls below the floor price, the counterparty pays us. Under the swap agreements, we receive a fixed price on a notional quantity of natural gas or crude oil in exchange for paying a variable price based on a market-based index, such as the NYMEX gas and crude oil futures.

As of December 31, 2015, we did not have any outstanding commodity derivatives. In January 2016, we entered into natural gas swaps covering 52.0 Bcf of our expected natural gas production from April 2016 through October 2016 at a weighted-average price of \$2.51 per Mcf. A significant portion of our expected natural gas and crude oil production for 2016 and beyond is currently unhedged and directly exposed to the volatility in natural gas and crude oil market prices, whether favorable or unfavorable.

During 2015, natural gas collars with floor prices ranging from \$3.86 to \$3.91 per Mcf and ceiling prices ranging from \$4.27 to \$4.43 per Mcf covered 70.9 Bcf, or 13%, of natural gas production at a weighted-average price of \$3.87 per Mcf. Natural gas swaps covered 107.3 Bcf, or 19%, of natural gas production at a weighted-average price of \$3.79 per Mcf.

We are exposed to market risk on commodity derivative instruments to the extent of changes in market prices of natural gas and crude oil. However, the market risk exposure on these derivative contracts is generally offset by the gain or loss recognized upon the ultimate sale of the commodity. Although notional contract amounts are used to express the volume of natural gas agreements, the amounts that can be subject to credit risk in the event of

non-performance by third parties are substantially smaller. Our counterparties are primarily commercial banks and financial service institutions that management believes present minimal credit risk and our derivative contracts are with multiple counterparties to minimize our exposure to any individual counterparty. We perform both quantitative and qualitative assessments of these counterparties based on their credit ratings and credit default swap rates where applicable. We have not incurred any losses related to non-performance risk

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of our counterparties and we do not anticipate any material impact on our financial results due to non-performance by third parties. However, we cannot be certain that we will not experience such losses in the future.

The preceding paragraphs contain forward-looking information concerning future production and projected gains and losses, which may be impacted both by production and by changes in the future commodity prices. See “Forward-Looking Information” for further details.

**Fair Value of Other Financial Instruments**

The estimated fair value of financial instruments is the amount at which the instrument could be exchanged currently between willing parties. The carrying amount reported in the Consolidated Balance Sheet for cash and cash equivalents approximates fair value due to the short-term maturities of these instruments. Cash and cash equivalents are classified as Level 1 in the fair value hierarchy.

We use available market data and valuation methodologies to estimate the fair value of debt. The fair value of debt is the estimated amount we would have to pay a third party to assume the debt, including a credit spread for the difference between the issue rate and the period end market rate. The credit spread is our default or repayment risk. The credit spread (premium or discount) is determined by comparing our senior notes and revolving credit facility to new issuances (secured and unsecured) and secondary trades of similar size and credit statistics for both public and private debt. The fair value of all senior notes and the revolving credit facility is based on interest rates currently available to us.

The carrying amount and fair value of debt is as follows:

(In thousands)	December 31, 2015		December 31, 2014	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Long-term debt	\$2,025,000	\$1,848,391	\$1,752,000	\$1,850,867
Current maturities	(20,000 )	(20,378 )	—	—
Long-term debt, excluding current maturities	\$2,005,000	\$1,828,013	\$1,752,000	\$1,850,867

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA  
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Cabot Oil & Gas Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income, stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Cabot Oil & Gas Corporation and its subsidiaries (the "Company") at December 31, 2015 and December 31, 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Houston, Texas

February 22, 2016

Table of ContentsCABOT OIL & GAS CORPORATION  
CONSOLIDATED BALANCE SHEET

(In thousands, except share amounts)	December 31,	
	2015	2014
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	\$514	\$20,954
Accounts receivable, net	120,229	235,397
Income taxes receivable	4,323	3,612
Inventories	17,049	14,026
Derivative instruments	—	137,603
Other current assets	2,671	1,855
Total current assets	144,786	413,447
Properties and equipment, net (Successful efforts method)	4,976,879	4,925,711
Equity method investments	103,517	68,029
Other assets	36,717	30,529
	<b>\$5,261,899</b>	<b>\$5,437,716</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities		
Accounts payable	\$160,407	\$400,076
Current portion of long-term debt	20,000	—
Accrued liabilities	24,923	32,992
Interest payable	30,222	30,677
Deferred income taxes	—	35,273
Total current liabilities	235,552	499,018
Postretirement benefits	35,293	35,827
Long-term debt	2,005,000	1,752,000
Deferred income taxes	807,236	843,876
Asset retirement obligations	143,606	124,655
Other liabilities	26,024	39,607
Total liabilities	3,252,711	3,294,983
Commitments and contingencies		
Stockholders' equity		
Common stock:		
Authorized — 960,000,000 shares of \$0.10 par value in 2015 and 2014, respectively		
Issued — 423,768,593 shares and 422,915,258 shares in 2015 and 2014, respectively	42,377	42,292
Additional paid-in capital	721,997	710,432
Retained earnings	1,552,014	1,698,995
Accumulated other comprehensive income (loss)	(365)	(2,151)
Less treasury stock, at cost: 9,892,680 shares in 2015 and 2014, respectively	(306,835)	(306,835)
Total stockholders' equity	2,009,188	2,142,733
	<b>\$5,261,899</b>	<b>\$5,437,716</b>

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

Table of ContentsCABOT OIL & GAS CORPORATION  
CONSOLIDATED STATEMENT OF OPERATIONS

(In thousands, except per share amounts)	Year Ended December 31,		
	2015	2014	2013
<b>OPERATING REVENUES</b>			
Natural gas	\$1,025,044	\$1,590,625	\$1,405,262
Crude oil and condensate	248,211	313,889	291,418
Gain (loss) on derivative instruments	56,686	219,319	—
Brokered natural gas	16,383	34,416	36,450
Other	10,826	14,762	13,148
	1,357,150	2,173,011	1,746,278
<b>OPERATING EXPENSES</b>			
Direct operations	140,814	145,529	140,856
Transportation and gathering	427,588	349,321	229,489
Brokered natural gas	12,592	30,030	29,936
Taxes other than income	42,809	47,012	43,045
Exploration	27,460	28,746	18,165
Depreciation, depletion and amortization	622,211	632,760	651,052
Impairment of oil and gas properties	114,875	771,037	—
General and administrative	69,444	82,590	104,606
	1,457,793	2,087,025	1,217,149
Earnings (loss) on equity method investments	6,415	3,080	1,102
Gain (loss) on sale of assets	3,866	17,120	21,351
<b>INCOME (LOSS) FROM OPERATIONS</b>	(90,362	) 106,186	551,582
Interest expense	96,911	73,785	66,044
Income (loss) before income taxes	(187,273	) 32,401	485,538
Income tax expense (benefit)	(73,382	) (72,067	) 205,765
<b>NET INCOME (LOSS)</b>	\$(113,891	) \$104,468	\$279,773
<b>Earnings (loss) per share</b>			
Basic	\$(0.28	) \$0.25	\$0.67
Diluted	\$(0.28	) \$0.25	\$0.66
<b>Weighted-average common shares outstanding</b>			
Basic	413,696	415,840	420,188
Diluted	413,696	417,601	422,375
Dividends per common share	\$0.08	\$0.08	\$0.06

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

Table of ContentsCABOT OIL & GAS CORPORATION  
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Net income (loss)	\$(113,891	) \$104,468	\$279,773
Other comprehensive income (loss), net of taxes:			
Reclassification adjustment for settled cash flow hedge contracts <sup>(1)</sup>	—	86,726	(34,548 )
Changes in fair value of cash flow hedge contracts <sup>(2)</sup>	—	(80,175	) (2,720 )
Postretirement benefits:			
Net gain (loss) <sup>(3)</sup>	1,786	(325	) 4,641
Amortization of net (gain) loss <sup>(4)</sup>	—	(16	) 386
Total other comprehensive income (loss)	1,786	6,210	(32,241 )
Comprehensive income (loss)	\$(112,105	) \$110,678	\$247,532

(1) Net of income taxes of \$(57,477) and \$22,454 for the year ended December 31, 2014 and 2013, respectively.

(2) Net of income taxes of \$53,135 and \$1,803 for the year ended December 31, 2014 and 2013, respectively.

(3) Net of income taxes of \$(1,043), \$48 and \$(2,977) for the year ended December 31, 2015, 2014 and 2013, respectively.

(4) Net of income taxes of \$10 and \$(255) for the year ended December 31, 2014 and 2013, respectively.

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

Table of ContentsCABOT OIL & GAS CORPORATION  
CONSOLIDATED STATEMENT OF CASH FLOWS

(In thousands)	Year Ended December 31,		
	2015	2014	2013
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Net income (loss)	\$(113,891	) \$104,468	\$279,773
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Depreciation, depletion and amortization	622,211	632,760	651,052
Impairment of oil and gas properties	114,875	771,037	—
Deferred income tax expense (benefit)	(72,968	) (112,567	) 138,380
(Gain) loss on sale of assets	(3,866	) (17,120	) (21,351
Exploratory dry hole cost	3,452	7,907	808
(Gain) loss on derivative instruments	(56,686	) (219,319	) —
Net cash received (paid) in settlement of derivative instruments	194,289	81,716	—
Earnings of equity method investments	(6,415	) (3,080	) (1,102
Amortization of debt issuance costs	4,454	4,754	3,693
Stock-based compensation and other	13,645	21,429	46,965
Changes in assets and liabilities:			
Accounts receivable, net	112,406	(11,689	) (49,398
Income taxes	(711	) (34,282	) 29,002
Inventories	(3,023	) 3,441	(3,033
Other current assets	(817	) 733	(428
Accounts payable and accrued liabilities	(64,533	) 2,883	(22,908
Other assets and liabilities	(1,685	) 1,989	(8,014
Stock-based compensation tax benefit	—	1,375	(18,913
Net cash provided by operating activities	740,737	1,236,435	1,024,526
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Capital expenditures	(955,602	) (1,479,632	) (1,194,739
Acquisitions	(16,312	) (214,737	) —
Proceeds from sale of assets	7,653	39,492	323,501
Restricted cash	—	28,094	(28,094
Investment in equity method investments	(29,073	) (38,057	) (18,875
Net cash used in investing activities	(993,334	) (1,664,840	) (918,207
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Borrowings from debt	877,000	2,032,000	955,000
Repayments of debt	(604,000	) (1,427,000	) (895,000
Treasury stock repurchases	—	(138,852	) (164,634
Dividends paid	(33,090	) (33,278	) (25,232
Stock-based compensation tax benefit	—	(1,375	) 18,913
Capitalized debt issuance costs	(7,838	) (5,626	) (2,750
Other	85	90	48
Net cash provided by (used in) financing activities	232,157	425,959	(113,655
Net decrease in cash and cash equivalents	(20,440	) (2,446	) (7,336
Cash and cash equivalents, beginning of period	20,954	23,400	30,736
Cash and cash equivalents, end of period	\$514	\$20,954	\$23,400

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



Table of ContentsCABOT OIL & GAS CORPORATION  
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

(In thousands, except per share amounts)	Common Shares	Common Stock Par	Treasury Shares	Treasury Stock	Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total
Balance at December 31, 2012	420,861	\$42,086	808	\$(3,349)	\$695,566	\$23,880	\$1,373,264	\$2,131,447
Net income	—	—	—	—	—	—	279,773	279,773
Exercise of stock appreciation rights	382	38	—	—	(13,264)	—	—	(13,226)
Stock amortization and vesting	772	77	—	—	9,725	—	—	9,802
Tax benefit of stock-based compensation	—	—	—	—	18,913	—	—	18,913
Purchase of treasury stock	—	—	4,810	(164,634)	—	—	—	(164,634)
Cash dividends at \$0.06 per share	—	—	—	—	—	—	(25,232)	(25,232)
Other comprehensive income (loss)	—	—	—	—	—	(32,241)	—	(32,241)
Balance at December 31, 2013	422,015	\$42,201	5,618	\$(167,983)	\$710,940	\$(8,361)	\$1,627,805	\$2,204,602
Net income	—	—	—	—	—	—	104,468	104,468
Stock amortization and vesting	900	91	—	—	867	—	—	958
Tax benefit of stock-based compensation	—	—	—	—	(1,375)	—	—	(1,375)
Purchase of treasury stock	—	—	4,275	(138,852)	—	—	—	(138,852)
Cash dividends at \$0.08 per share	—	—	—	—	—	—	(33,278)	(33,278)
Other comprehensive income (loss)	—	—	—	—	—	6,210	—	6,210
Balance at December 31, 2014	422,915	\$42,292	9,893	\$(306,835)	\$710,432	\$(2,151)	\$1,698,995	\$2,142,733
Net loss	—	—	—	—	—	—	(113,891)	(113,891)
Exercise of stock appreciation rights	40	4	—	—	(946)	—	—	(942)
Stock amortization and vesting	814	81	—	—	12,511	—	—	12,592
Cash dividends at \$0.08 per share	—	—	—	—	—	—	(33,090)	(33,090)
Other comprehensive income (loss)	—	—	—	—	—	1,786	—	1,786

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Balance at December 31, 2015	423,769	\$42,377	9,893	\$(306,835)	\$721,997	\$(365 )	\$1,552,014	\$2,009,188
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The accompanying notes are an integral part of these consolidated financial statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Basis of Presentation and Nature of Operations

Cabot Oil & Gas Corporation and its subsidiaries (the Company) are engaged in the development, exploitation, exploration, production and marketing of natural gas, oil and, to a lesser extent, NGLs exclusively within the continental United States. The Company also transports, stores, gathers and purchases natural gas for resale. The Company's exploration and development activities are concentrated in areas with known hydrocarbon resources, which are conducive to multi-well, repeatable drilling programs.

The Company operates in one segment, natural gas and oil development, exploitation and exploration. The Company's oil and gas properties are managed as a whole rather than through discrete operating segments or business units.

Operational information is tracked by geographic area; however, financial performance is assessed as a single enterprise and not on a geographic basis. Allocation of resources is made on a project basis across the Company's entire portfolio without regard to geographic areas.

The consolidated financial statements include the accounts of the Company and its subsidiaries after eliminating all significant intercompany balances and transactions. Certain reclassifications have been made to prior year statements to conform with current year presentation. These reclassifications have no impact on previously reported net income (loss).

Significant Accounting Policies

Cash and Cash Equivalents

The Company considers all highly liquid short-term investments with a maturity of three months or less and deposits in money market funds that are readily convertible to cash to be cash equivalents. Cash and cash equivalents were primarily concentrated in one financial institution at December 31, 2015 and 2014. The Company periodically assesses the financial condition of its financial institutions and considers any possible credit risk to be minimal.

Allowance for Doubtful Accounts

The Company records an allowance for doubtful accounts for receivables that the Company determines to be uncollectible based on the specific identification method.

Inventories

Inventories are comprised of natural gas in storage, tubular goods and well equipment and pipeline imbalances. Natural gas in storage and tubular goods and well equipment balances are carried at average cost.

Natural gas gathering and pipeline operations normally include imbalance arrangements with the pipeline. The volumes of natural gas due to or from the Company under imbalance arrangements are recorded at actual selling or purchase prices, as the case may be, and are adjusted monthly to market prices.

Equity Method Investments

The Company accounts for its investments in entities over which the Company has significant influence, but not control, using the equity method of accounting. Under the equity method of accounting, the Company increases its investment for contributions made and records its proportionate share of net earnings, declared dividends and partnership distributions based on the most recently available financial statements of the investee. The Company records the activity for its equity method investments on a one month lag. In addition, the Company evaluates its equity method investments for potential impairment whenever events or changes in circumstances indicate that there is an other-than-temporary decline in the value of the investment.

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### Properties and Equipment

The Company uses the successful efforts method of accounting for oil and gas producing activities. Under this method, acquisition costs for proved and unproved properties are capitalized when incurred. Exploration costs, including geological and geophysical costs, the costs of carrying and retaining unproved properties and exploratory dry hole drilling costs, are expensed. Development costs, including the costs to drill and equip development wells and successful exploratory drilling costs to locate proved reserves are capitalized.

Exploratory drilling costs are capitalized when incurred pending the determination of whether a well has found proved reserves. The determination is based on a process which relies on interpretations of available geologic, geophysical, and engineering data. If a well is determined to be successful, the capitalized drilling costs will be reclassified as part of the cost of the well. If a well is determined to be unsuccessful, the capitalized drilling costs will be charged to exploration expense in the Consolidated Statement of Operations in the period the determination is made. If an exploratory well requires a major capital expenditure before production can begin, the cost of drilling the exploratory well will continue to be carried as an asset pending determination of whether reserves have been found only as long as: (i) the well has found a sufficient quantity of reserves to justify its completion as a producing well if the required capital expenditure is made and (ii) drilling of an additional exploratory well is under way or firmly planned for the near future. If drilling in the area is not under way or firmly planned, or if the well has not found a commercially producible quantity of reserves, the exploratory well is assumed to be impaired and its costs are charged to exploration expense.

Development costs of proved oil and gas properties, including estimated dismantlement, restoration and abandonment costs and acquisition costs, are depreciated and depleted on a field basis by the units-of-production method using proved developed and proved reserves, respectively. Properties related to gathering and pipeline systems and equipment are depreciated using the straight-line method based on estimated useful lives ranging from 10 to 25 years. Generally pipeline and transmission systems are depreciated over 12 to 25 years, gathering and compression equipment is depreciated over 10 years and storage equipment and facilities are depreciated over 10 to 16 years. Buildings are depreciated on a straight-line basis over 25 to 40 years. Certain other assets are depreciated on a straight-line basis over 3 to 10 years.

Costs of retired, sold or abandoned properties that make up a part of an amortization base (partial field) are charged to accumulated depreciation, depletion and amortization if the units-of-production rate is not significantly affected. A gain or loss, if any, is recognized only when a group of proved properties (entire field) that make up the amortization base has been retired, abandoned or sold.

The Company evaluates its proved oil and gas properties for impairment whenever events or changes in circumstances indicate an asset's carrying amount may not be recoverable. The Company compares expected undiscounted future cash flows to the net book value of the asset. If the future undiscounted expected cash flows, based on estimates of future natural gas and crude oil prices, operating costs and anticipated production from proved reserves and risk-adjusted probable and possible reserves, are lower than the net book value of the asset, the capitalized cost is reduced to fair value. Commodity pricing is estimated by using a combination of assumptions management uses in its budgeting and forecasting process as well as historical and current prices adjusted for geographical location and quality differentials, as well as other factors that management believes will impact realizable prices. Fair value is calculated by discounting the future cash flows. The discount factor used is based on rates utilized by market participants that are commensurate with the risks inherent in the development and production of the underlying natural gas and oil.

Unproved oil and gas properties are assessed periodically for impairment on an aggregate basis through periodic updates to the Company's undeveloped acreage amortization based on past drilling and exploration experience, the Company's expectation of converting leases to held by production and average property lives. Average property lives are determined on a geographical basis and based on the estimated life of unproved property leasehold rights. During 2015, 2014 and 2013, amortization associated with the Company's unproved properties was \$41.4 million, \$17.4 million and \$53.6 million, respectively, and is included in depreciation, depletion, and amortization in the Consolidated Statement of Operations.

### Asset Retirement Obligations

The Company records the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement cost is capitalized as part of the carrying amount of the long-lived asset. The asset retirement costs are depreciated using the units-of-production method. The majority of the asset retirement obligations recorded by the Company relate to the plugging and abandonment of oil and gas wells. However, liabilities are also recorded for meter stations, pipelines, processing plants and compressors. At December 31, 2015, there were no assets legally restricted for purposes of settling asset retirement obligations.

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Additional retirement obligations increase the liability associated with new oil and gas wells and other facilities as these obligations are incurred. Accretion expense is included in depreciation, depletion and amortization expense in the Consolidated Statement of Operations.

### Derivative Instruments and Hedging Activities

The Company enters into derivative contracts, primarily options and swaps, to manage its exposure to price fluctuations on a portion of its anticipated future natural gas and oil production. The Company's credit agreement restricts the ability of the Company to enter into commodity derivatives other than to hedge or mitigate risks to which the Company has actual or projected exposure or as permitted under the Company's risk management policies and where such derivatives do not subject the Company to material speculative risks. All of the Company's derivatives are used for risk management purposes and are not held for trading purposes.

All derivatives are recognized on the balance sheet and are measured at fair value. At the end of each quarterly period, these derivatives are marked-to-market. If the derivative does not qualify or is not designated as a cash flow hedge, changes in the fair value of the derivative are recognized in income. If the derivative qualifies and is designated as a cash flow hedge, changes in the fair value of the derivative are deferred in accumulated other comprehensive income to the extent the hedge is effective.

For derivatives that qualify and are designated as a cash flow hedges, the hedging relationship between the hedging instruments and hedged items must be highly effective in achieving the offset of changes in cash flows attributable to the hedged risk, both at the inception of the hedge and on an ongoing basis. The Company measures hedge effectiveness on a quarterly basis. Hedge accounting is discontinued prospectively if and when a hedging instrument becomes ineffective. Gains and losses deferred in accumulated other comprehensive income related to cash flow hedges that become ineffective remain unchanged until the related production occurs. If the Company determines that it is probable that a forecasted hedged transaction will not occur, deferred gains or losses on the related hedging instrument are recognized in income immediately.

Gains and losses on derivatives designated as cash flow hedges are included in natural gas and crude oil and condensate revenues. Gains and losses on derivatives which represent hedge ineffectiveness and gains and losses on derivatives not designated or that do not qualify for hedge accounting are included in operating revenues in gain (loss) on derivative instruments. The resulting cash flows are reported as cash flows from operating activities.

### Fair Value of Assets and Liabilities

The Company follows the authoritative accounting guidance for measuring fair value of assets and liabilities in its financial statements. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price). The Company utilizes market data or assumptions that market participants who are independent, knowledgeable and willing and able to transact would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. The Company is able to classify fair value balances based on the observability of these inputs. The authoritative guidance for fair value measurements establishes three levels of the fair value hierarchy, defined as follows:

Level 1: Unadjusted, quoted prices for identical assets or liabilities in active markets.

Level 2: Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly for substantially the full term of the asset or liability.

Level 3: Significant, unobservable inputs for use when little or no market data exists, requiring a significant degree of judgment.

The hierarchy gives the highest priority to Level 1 measurements and the lowest priority to Level 3 measurements. Depending on the particular asset or liability, input availability can vary depending on factors such as product type, longevity of a product in the market and other particular transaction conditions. In some cases, certain inputs used to measure fair value may be categorized into different levels of the fair value hierarchy. For disclosure purposes under the accounting guidance, the lowest level that contains significant inputs used in the valuation should be chosen.

Revenue Recognition

Natural gas and oil sales result from interests in oil and gas properties owned by the Company. Sales of natural gas and oil are recognized when the product is delivered and title transfers to the purchaser. Payment is generally received one to three months after the sale has occurred.

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**Producer Gas Imbalances.** The Company applies the sales method of accounting for natural gas revenue. Under this method, revenues are recognized based on the actual volume of natural gas sold to purchasers. Natural gas production operations may include joint owners who take more or less than the production volumes entitled to them on certain properties. Production volume is monitored to minimize these natural gas imbalances. Under this method, a natural gas imbalance liability is recorded if the Company's excess takes of natural gas exceed its estimated remaining proved developed reserves for these properties at the actual price realized upon the gas sale. A receivable is recognized only to the extent an imbalance cannot be recouped from the reserves in the underlying properties. The Company's aggregate imbalance positions at December 31, 2015 and 2014 were not material.

**Brokered Natural Gas.** Revenues and expenses related to brokering natural gas are reported gross as part of operating revenues and operating expenses in accordance with applicable accounting standards. The Company buys and sells natural gas utilizing separate purchase and sale transactions, typically with separate counterparties, whereby the Company and/or the counterparty takes title to the natural gas purchased or sold.

### Income Taxes

The Company follows the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recorded for the estimated future tax consequences attributable to the differences between the financial carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using the tax rate in effect for the year in which those temporary differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the year of the enacted rate change. A valuation allowance is established to reduce deferred tax assets if it is more likely than not that the related tax benefits will not be realized.

The Company is required to make judgments, including estimating reserves for potential adverse outcomes regarding tax positions that the Company has taken. The Company accounts for uncertainty in income taxes using a recognition and measurement threshold for tax positions taken or expected to be taken in a tax return. The tax benefit from an uncertain tax position is recognized when it is more likely than not that the position will be sustained upon examination by taxing authorities based on technical merits of the position. The amount of the tax benefit recognized is the largest amount of the benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The effective tax rate and the tax basis of assets and liabilities reflect management's estimates of the ultimate outcome of various tax uncertainties.

The Company recognizes accrued interest related to uncertain tax positions in interest expense and accrued penalties related to such positions in general and administrative expense in the Consolidated Statement of Operations.

### Stock-Based Compensation

The Company accounts for stock-based compensation under the fair value method of accounting. Under this method, compensation cost is measured at the grant date for equity-classified awards and remeasured each reporting period for liability-classified awards based on the fair value of an award and is recognized over the service period, which is generally the vesting period. To calculate fair value, the Company uses either a Monte Carlo or Black-Scholes valuation model depending on the specific provisions of the award. Stock-based compensation cost for all types of awards is included in general and administrative expense in the Consolidated Statement of Operations.

The tax benefit for stock-based compensation is included as both a cash outflow from operating activities and a cash inflow from financing activities in the Consolidated Statement of Cash Flows. The Company recognizes a tax benefit only to the extent it reduces the Company's income taxes payable.

### Environmental Matters

Environmental expenditures are expensed or capitalized, as appropriate, depending on their future economic benefit. Expenditures that relate to an existing condition caused by past operations, and that do not have future economic benefit are expensed. Liabilities related to future costs are recorded on an undiscounted basis when environmental assessments and/or remediation activities are probable and the costs can be reasonably estimated. Any insurance recoveries are recorded as assets when received.

### Credit and Concentration Risk

Substantially all of the Company's accounts receivable result from the sale of natural gas and oil and joint interest billings to third parties in the oil and gas industry. This concentration of purchasers and joint interest owners may

impact the Company's overall credit risk, either positively or negatively, in that these entities may be similarly affected by changes in economic or other conditions. The Company does not anticipate any material impact on its financial results due to non-performance by the third parties.

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During the years ended December 31, 2015, 2014 and 2013, two customers accounted for approximately 16% and 14%, two customers accounted for approximately 14% and 10% and four customers accounted for approximately 21%, 16%, 14% and 11%, respectively, of the Company's total sales. The Company does not believe that the loss of any of these customers would have a material adverse effect because alternative customers are readily available.

### Use of Estimates

In preparing financial statements, the Company follows accounting principles generally accepted in the United States. These principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. The most significant estimates pertain to proved natural gas and oil reserves and related cash flow estimates which are used to compute depreciation, depletion and amortization and impairments of proved oil and gas properties. Other significant estimates include natural gas and oil revenues and expenses, fair value of derivative instruments, estimates of expenses related to legal, environmental and other contingencies, asset retirement obligations, postretirement obligations, stock-based compensation and deferred income taxes. Actual results could differ from those estimates.

### Recently Adopted Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2015-17, Balance Sheet Classification of Deferred Taxes. The amendments in this update require deferred tax liabilities and assets to be classified as noncurrent. The guidance is effective for interim and annual periods beginning after December 15, 2016, however early adoption is allowed. This update may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. The Company elected to early adopt this standard on a prospective basis and, as a result, there have been no adjustments made to prior periods. The adoption of this guidance only affected the Company's financial position and did not have an impact on its results of operations or cash flows.

### Recently Issued Accounting Pronouncements

In March 2015, the FASB issued ASU No. 2015-03, Simplifying the Presentation of Debt Issuance Costs. The amendments in this update require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. In August 2015, the FASB issued ASU No. 2015-15, Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements. The update provides authoritative guidance for debt issuance costs related to line-of-credit arrangements, noting the SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The guidance is effective for interim and annual periods beginning after December 15, 2015. The Company does not believe the adoption of this guidance will have a material effect on its financial position, results of operations or cash flows.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, as a new Topic, Accounting Standards Codification Topic 606. The new revenue recognition standard provides a five-step analysis of transactions to determine when and how revenue is recognized. The core principle of the guidance is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606), which deferred the effective date of ASU No. 2014-09 by one year, making the new standard effective for interim and annual periods beginning after December 15, 2017. This ASU can be adopted either retrospectively or as a cumulative-effect adjustment as of the date of adoption; however, entities reporting under U.S. GAAP are not permitted to adopt the standard earlier than the original effective date for public entities (that is, no earlier than 2017 for calendar year-end entities). The Company is currently evaluating the effect that adopting this guidance will have on its financial position, results of operations or cash flows.





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## 2. Acquisitions and Divestitures

## Acquisitions

In December 2014, the Company completed the acquisition of certain proved and unproved oil and gas properties in the Eagle Ford Shale in south Texas for approximately \$30.5 million. Total net cash consideration paid by the Company was approximately \$29.9 million, which reflects the impact of customary purchase price adjustments and acquisition costs.

In October 2014, the Company completed the acquisition of certain proved and unproved oil and gas properties in the Eagle Ford Shale in south Texas. Total net cash consideration paid by the Company was approximately \$185.2 million, which reflects the purchase price of \$210.0 million, adjusted by approximately \$17.4 million for properties that the seller was unable to obtain consents for certain leaseholds prior to closing and approximately \$7.4 million for the impact of customary purchase price adjustments and acquisition costs. In addition, the Company also assumed a liability of approximately \$1.2 million related to asset retirement obligations of the wells acquired. In April 2015, the Company completed the acquisition of the remaining oil and gas properties for which the seller was unable to obtain consents at closing for approximately \$16.0 million.

The Company accounted for these transactions as an asset purchase, whereby the identifiable assets acquired were recorded at cost, with the respective assigned carrying amount based on the relative fair value of the unproved and proved properties at the acquisition date. The fair value measurement of assets acquired was based on inputs that are not observable in the market and therefore represent Level 3 inputs. The fair value of oil and gas properties were measured using discounted future cash flows. The discount factor used was based on rates utilized by market participants that are commensurate with the risks inherent in the development and production of the underlying natural gas and oil. Significant inputs to the valuation of oil and gas properties include (i) reserves, including risk adjustments for probable and possible reserves; (ii) production rates based on the Company's experience with similar properties in which it operates; (iii) estimated future operating and development costs; (iv) future commodity prices; (v) future cash flows; and (vi) a market-based weighted average cost of capital rate of 10.0%.

## Divestitures

The Company recognized an aggregate net gain (loss) on sale of assets of \$3.9 million, \$17.1 million and \$21.4 million for the years ended December 31, 2015, 2014 and 2013, respectively.

In October 2014, the Company completed the divestiture of certain proved and unproved oil and gas properties in east Texas to a third party for approximately \$44.3 million and recognized a \$19.9 million gain on sale of assets.

In December 2013, the Company sold certain proved and unproved oil and gas properties located in the Oklahoma and Texas panhandles to Chaparral Energy, L.L.C. for approximately \$160.0 million and recognized a \$19.4 million gain on sale of assets. The Company also sold certain proved and unproved oil and gas properties located in Oklahoma, Texas and Kansas to a third party for approximately \$123.4 million and recognized a \$17.5 million loss on sale of assets.

In 2013, the Company sold various other proved and unproved oil and gas properties for approximately \$44.3 million and recognized an aggregate net gain of \$19.5 million.

## 3. Properties and Equipment, Net

Properties and equipment, net are comprised of the following:

(In thousands)	December 31,	
	2015	2014
Proved oil and gas properties	\$8,821,146	\$7,984,979
Unproved oil and gas properties	390,434	492,208
Gathering and pipeline systems	243,672	241,272
Land, building and other equipment	117,848	109,758
	9,573,100	8,828,217
Accumulated depreciation, depletion and amortization	(4,596,221)	(3,902,506)
	\$4,976,879	\$4,925,711



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## Impairment

In December 2015, the Company recorded an impairment of \$114.9 million associated with oil and gas properties in certain non-core fields in south Texas, east Texas and Louisiana. The impairment of these fields was due to a significant decline in commodity prices in late 2015. These fields were reduced to fair value of approximately \$89.9 million using discounted future cash flows.

In December 2014, the Company recorded a \$771.0 million impairment of oil and gas properties in certain non-core fields, primarily in east Texas. The impairment of these fields was due to a significant decline in commodity prices in late 2014 and management's decision not to pursue any further activity in these non-core areas in the current price environment. These fields were reduced to fair value of approximately \$86.5 million using discounted future cash flows.

The fair value of the impaired fields was based on significant inputs that were not observable in the market and are considered to be Level 3 inputs as defined by ASC 820. Refer to Note 1 for a description of fair value hierarchy. Key assumptions included (i) reserves, including risk adjustments for probable and possible reserves; (ii) production rates based on the Company's experience with similar properties in which it operates; (iii) estimated future operating and development costs; (iv) future commodity prices; (v) future cash flows; and (vi) a market-based weighted average cost of capital rate of 10% at December 31, 2015 and 2014, respectively.

## Capitalized Exploratory Well Costs

The following table reflects the net changes in capitalized exploratory well costs:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Balance at beginning of period	\$10,557	\$—	\$10,390
Additions to capitalized exploratory well costs pending the determination of proved reserves	—	10,557	—
Reclassifications to wells, facilities, and equipment based on the determination of proved reserves	(10,557	) —	(10,198
Capitalized exploratory well costs charged to expense	—	—	(192
Balance at end of period	\$—	\$10,557	\$—

The following table provides an aging of capitalized exploratory well costs based on the date the drilling was completed:

(In thousands)	December 31,		
	2015	2014	2013
Capitalized exploratory well costs that have been capitalized for a period of one year or less	\$—	\$10,557	\$—
Capitalized exploratory well costs that have been capitalized for a period greater than one year	—	—	—
	\$—	\$10,557	\$—

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## 4. Equity Method Investments

The Company has two equity method investments, Constitution Pipeline Company, LLC (Constitution) and Meade Pipeline Co LLC (Meade), which are further described below. Activity related to these equity method investments is as follows:

(In thousands)	Constitution			Meade			Total		
	Year Ended December 31,			Year Ended December 31,			Year Ended December 31,		
	2015	2014	2013	2015	2014	2013	2015	2014	2013
Balance at beginning of period	\$64,268	\$26,892	\$6,915	\$3,761	\$—	\$—	\$68,029	\$26,892	\$6,915
Contributions	19,625	34,200	18,875	9,448	3,857	—	29,073	38,057	18,875
Earnings (loss) on equity method investments	6,452	3,176	1,102	(37 )	(96 )	—	6,415	3,080	1,102
Balance at end of period	\$90,345	\$64,268	\$26,892	\$13,172	\$3,761	\$—	\$103,517	\$68,029	\$26,892

## Constitution Pipeline Company, LLC

In April 2012, the Company acquired a 25% equity interest in Constitution, which was formed to develop, construct and operate a 124 mile large diameter pipeline to transport natural gas from northeast Pennsylvania to both the New England and New York markets. Under the terms of the agreement, the Company agreed to invest its proportionate share of costs associated with the development and construction of the pipeline and related facilities, subject to a contribution cap of \$250 million. The expected in-service date for the new pipeline is the fourth quarter of 2016; however, this estimate is contingent on the timely issuance of remaining outstanding permits. The Company expects to contribute approximately \$139.0 million over the next two years.

## Meade Pipeline Co LLC

In February 2014, the Company acquired a 20% equity interest in Meade, which was formed to participate in the development and construction of a 177-mile pipeline (Central Penn Line) that will transport natural gas from Susquehanna County, Pennsylvania to an interconnect with Transcontinental Gas Pipe Line Company, LLC's (Transco) mainline in Lancaster County, Pennsylvania. The new pipeline will be constructed and operated by Transco and will be owned by Transco and Meade in proportion to their respective ownership percentages of approximately 61% and 39%, respectively. Under the terms of the Meade LLC agreement, the Company agreed to invest its proportionate share of Meade's anticipated costs associated with the new pipeline. The Company expects to contribute approximately \$130.2 million over the next two years. The expected in-service date for the new pipeline is scheduled for the second half of 2017.

## 5. Debt and Credit Agreements

The Company's debt and credit agreements consisted of the following:

(In thousands)	December 31,	
	2015	2014
Total debt		
7.33% weighted-average senior notes	\$20,000	\$20,000
6.51% weighted-average senior notes	425,000	425,000
9.78% senior notes	67,000	67,000
5.58% weighted-average senior notes	175,000	175,000
3.65% weighted-average senior notes	925,000	925,000
Revolving credit facility	413,000	140,000
Current maturities		
7.33% weighted-average senior notes	(20,000 )	—
Long-term debt, excluding current maturities	\$2,005,000	\$1,752,000



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The Company has debt maturities of \$20.0 million due in 2016, \$312.0 million due in 2018 and \$100.0 million due in 2020. In addition, the revolving credit facility matures in 2020. No other tranches of debt are due within the next five years.

At December 31, 2015, the Company was in compliance with all restrictive financial covenants, as amended, for both its revolving credit facility and senior notes.

**Senior Notes**

The Company has various issuances of senior notes. Interest on each of the senior notes is payable semi-annually. Under the terms of the various senior note agreements, the Company may prepay all or any portion of the notes of each series on any date at a price equal to the principal amount thereof plus accrued and unpaid interest plus a make-whole premium.

Due to the significant decrease in natural gas and crude oil prices during 2015 and the related impact on certain of the Company's financial covenants, effective December 31, 2015, the Company amended the agreements governing its senior notes to adjust certain financial covenants and to include an additional financial covenant, as further described below. The amended agreements provide that the asset coverage ratio (present value of proved reserves to debt, as defined in the agreements) be calculated based on the present value of proved reserves before income taxes, whereas prior to these amendments, the present value was calculated after income taxes. The minimum asset coverage ratio was also reduced from 1.75 to 1.0 to 1.25 to 1.0 through and including December 31, 2017 and increases back to the pre-amended ratio of 1.75 to 1.0 beginning on January 1, 2018 and thereafter. The amendments also introduce a leverage ratio covenant, which is defined in the agreement as the ratio of debt to consolidated EBITDAX. The leverage ratio may not exceed a maximum ratio of:

- 4.75 to 1.0 through and including December 31, 2016;
- 4.25 to 1.0 through and including December 31, 2017; and

3.50 to 1.0 beginning on March 31, 2018 and remains in effect until the Company maintains a leverage ratio below 3.0 to 1.0 for two consecutive fiscal quarters ending on or after December 31, 2017, or receives an investment grade rating by Standard & Poor's Ratings Services (S&P) or Moody's Investor Service, Inc (Moody's).

In addition, the amendments provide for potential increases to the original coupon rates ranging from 0 to 125 basis points depending on the asset coverage and leverage ratios at the end of the respective quarterly period, as defined in the note agreements. These potential increases lapse when the Company maintains a leverage ratio between 3.0 to 1.0 for two consecutive fiscal quarters ending on or after December 31, 2017 or receives an investment grade rating by S&P or Moody's. As of December 31, 2015, based on the Company's asset coverage and leverage ratios, there were no interest rate adjustments required for the Company's senior notes.

The note agreements continue to include a minimum annual coverage ratio of consolidated cash flow to interest expense for the trailing four quarters of 2.8 to 1.0, which was unchanged by the amendments. There are also various other covenants customarily found in such debt instruments. The notes are also subject to customary events of default. In conjunction with the execution of the amendments, the Company incurred approximately \$1.9 million of debt issuance costs, which were capitalized and are being amortized over the term of the respective amended agreements in accordance with ASC 470-50, "Debt Modifications and Extinguishments."

**7.33% Weighted-Average Senior Notes**

In July 2001, the Company issued \$170 million of senior unsecured notes to a group of seven institutional investors in a private placement. The notes have bullet maturities and were issued in three separate tranches as follows:

	Principal	Term	Maturity Date	Coupon	
Tranche 1	\$75,000,000	10 years	July 2011	7.26	%
Tranche 2	\$75,000,000	12 years	July 2013	7.36	%
Tranche 3	\$20,000,000	15 years	July 2016	7.46	%

As of December 31, 2015, the Company has repaid \$150 million of aggregate maturities associated with the 7.33% weighted-average senior notes.





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## 6.51% Weighted-Average Senior Notes

In July 2008, the Company issued \$425 million of senior unsecured notes to a group of 41 institutional investors in a private placement. The notes have bullet maturities and were issued in three separate tranches as follows:

	Principal	Term	Maturity Date	Coupon	
Tranche 1	\$245,000,000	10 years	July 2018	6.44	%
Tranche 2	\$100,000,000	12 years	July 2020	6.54	%
Tranche 3	\$80,000,000	15 years	July 2023	6.69	%

## 9.78% Senior Notes

In December 2008, the Company issued \$67 million aggregate principal amount of 10 year 9.78% senior unsecured notes to a group of four institutional investors in a private placement.

## 5.58% Weighted-Average Senior Notes

In December 2010, the Company issued \$175 million of senior unsecured notes to a group of eight institutional investors in a private placement. The notes have bullet maturities and were issued in three separate tranches as follows:

	Principal	Term	Maturity Date	Coupon	
Tranche 1	\$88,000,000	10 years	January 2021	5.42	%
Tranche 2	\$25,000,000	12 years	January 2023	5.59	%
Tranche 3	\$62,000,000	15 years	January 2026	5.80	%

## 3.65% Weighted Average Senior Notes

In September 2014, the Company issued \$925 million of senior unsecured notes to a group of 24 institutional investors in a private placement. The notes have bullet maturities and were issued in three separate tranches as follows:

	Principal	Term	Maturity Date	Coupon	
Tranche 1	\$100,000,000	7 years	September 2021	3.24	%
Tranche 2	\$575,000,000	10 years	September 2024	3.67	%
Tranche 3	\$250,000,000	12 years	September 2026	3.77	%

In conjunction with the issuance of the 3.65% weighted average senior notes in September 2014, the Company incurred approximately \$5.6 million of debt issuance costs, which were capitalized and are being amortized over the term of the notes. The amortization of debt issuance costs is included in interest expense in the Consolidated Statement of Operations.

## Revolving Credit Agreement

The Company's revolving credit facility is unsecured. The borrowing base is redetermined annually under the terms of the revolving credit facility on April 1. In addition, either the Company or the banks may request an interim redetermination twice a year or in conjunction with certain acquisitions or sales of oil and gas properties.

Effective April 17, 2015, the Company amended its revolving credit facility to extend the maturity date from May 2017 to April 2020 and change the mechanism under which interest rate margins are determined for outstanding borrowings. The revolving credit facility, as amended, provides for a borrowing base of \$3.4 billion and commitments of \$1.8 billion. The amended credit facility also provides for an accordion feature, which allows the Company to increase the available credit line up to an additional \$500 million if one or more of the existing or new banks agree to provide such an increased amount.

In conjunction with the Company's amendments to the senior notes, effective December 31, 2015, the Company also amended its revolving credit facility to adjust certain financial covenants and include an additional financial covenant, as further described below. The amendment provides that the asset coverage ratio (present value of proved reserves to debt, as defined in the agreement) be calculated based on the present value of proved reserves before income taxes, whereas prior to the amendment, the present value was calculated after income taxes. The minimum asset coverage ratio was also reduced from



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1.75 to 1.0 to 1.25 to 1.0 through and including December 31, 2017 and increases back to the pre-amended ratio of 1.75 to 1.0 beginning on March 31, 2018. The amendment also introduces a leverage ratio covenant, which is defined in the agreement as the ratio of debt to consolidated EBITDAX. The ratio may not exceed a maximum ratio of:

- 4.75 to 1.0 through and including December 31, 2016;
  - 4.25 to 1.0 through and including December 31, 2017; and
- 3.50 to 1.0 beginning on March 31, 2018 and remains in effect until the Company maintains a leverage ratio below 3.0 to 1.0 for two consecutive fiscal quarters beginning on or after December 31, 2017, or receives an investment grade rating by S&P or Moody's.

In addition to the amendment to the asset coverage ratio and inclusion of the leverage ratio covenant, the amended revolving credit facility also increases the maximum leverage ratio and associated margins. Interest rates under the amended revolving credit facility are based on LIBOR or ABR indications, plus a margin which ranges from 50 to 300 basis points, as defined in the agreement. These rates will remain in effect (i) until the first date occurring on or after December 31, 2017 on which both the asset coverage ratio is greater than 1.75 to 1.0 and the leverage ratio is less than 3.0 to 1.0 for two consecutive fiscal quarters, at which time the related margins will revert back to pre-amendment levels of 50 to 225 basis points, or (ii) upon the Company achieving an investment grade rating from either Moody's or S&P, at which time the associated margins will be adjusted and determined based on the Company's credit rating on a prospective basis.

The revolving credit facility also contains various other customary covenants that remained unchanged as a result of the amendment, which include the following (with all calculations based on definitions contained in the agreement):

- (a) Maintenance of a minimum annual coverage ratio of consolidated cash flow to interest expense for the trailing four quarters of 2.8 to 1.0.
- (b) Maintenance of a minimum current ratio of 1.0 to 1.0.

The credit facility also provides for a commitment fee on the unused available balance at annual rates ranging from 0.30% to 0.50%. The other terms and conditions of the amended facility are generally consistent with the terms and conditions of the revolving credit facility prior to its amendment.

The Company incurred approximately \$7.8 million and \$1.1 million of debt issuance costs in connection with the April 17, 2015 and December 31, 2015 amendments to the revolving credit facility, respectively, which were capitalized and will be amortized over the term of the amended credit facility. The remaining unamortized costs will be amortized over the term of the amended revolving credit facility in accordance with ASC 470-50, "Debt Modifications and Extinguishments."

At December 31, 2015, the Company had \$413.0 million of borrowings outstanding under its revolving credit facility and had unused commitments of \$1.4 billion. The Company's weighted-average effective interest rates for the revolving credit facility during the years ended December 31, 2015, 2014 and 2013 were approximately 2.2%, 2.2% and 2.3%, respectively.

## 6. Derivative Instruments and Hedging Activities

Through March 31, 2014, the Company elected to designate its commodity derivatives as cash flow hedges for accounting purposes. Effective April 1, 2014, the Company discontinued hedge accounting for its commodity derivatives on a prospective basis. As a result of discontinuing hedge accounting, the unrealized loss included in accumulated other comprehensive income (loss) as of April 1, 2014 of \$73.4 million (\$44.2 million net of tax) was frozen and reclassified into natural gas and crude oil and condensate revenues in the Statement of Operations throughout 2014 as the underlying hedged transactions occurred. As of December 31, 2014, there are no gains or losses deferred in accumulated other comprehensive income (loss) associated with the Company's commodity derivatives.

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As of December 31, 2015, the Company did not have any outstanding commodity derivatives. In January 2016, the Company entered into natural gas swaps covering 52.0 Bcf of its expected natural gas production from April 2016 through October 2016 at a weighted-average price of \$2.51 per Mcf.

## Effect of Derivative Instruments on the Consolidated Balance Sheet

(In thousands)	Balance Sheet Location	Fair Values of Derivative Instruments			
		Derivative Assets December 31,		Derivative Liabilities December 31,	
		2015	2014	2015	2014
Derivatives Not Designated as Hedges					
Commodity contracts	Derivative instruments (current assets)	—	137,603	—	—
		\$—	\$137,603	\$—	\$—

## Offsetting of Derivative Assets and Liabilities in the Consolidated Balance Sheet

(In thousands)	December 31,	2015	2014
Derivative assets			
Gross amounts of recognized assets		\$—	\$137,603
Gross amounts offset in the statement of financial position		—	—
Net amounts of assets presented in the statement of financial position		—	137,603
Gross amounts of financial instruments not offset in the statement of financial position		—	2,338
Net amount		\$—	\$139,941

## Effect of Derivative Instruments on Accumulated Other Comprehensive Income (Loss)

The effective portion of gain (loss) recognized in accumulated other comprehensive income (loss) on derivatives is as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Commodity contracts	\$—	\$(133,310)	\$(4,523)

The effective portion of gain (loss) reclassified from accumulated other comprehensive income (loss) into income is as follows:

(In thousands)	Year Ended December 31,		
	2015	2014 <sup>(1)</sup>	2013
Natural gas revenues	\$—	\$(143,577)	\$52,733
Crude oil and condensate revenues	—	(626)	4,269
	\$—	\$(144,203)	\$57,002

(1) The Company ceased hedge accounting effective April 1, 2014. As a result, a loss of approximately \$73.4 million related to amounts previously frozen in accumulated other comprehensive income (loss) was reclassified into income during 2014.

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## Effect of Derivative Instruments on the Consolidated Statement of Operations

(In thousands)	Year Ended December 31,		
	2015	2014	2013
<b>Derivatives Designated as Hedges</b>			
Cash received (paid) on settlement of derivative instruments			
Natural gas	\$—	\$(70,557 )	\$52,733
Crude oil and condensate	—	(218 )	4,269
	\$—	\$(70,775 )	\$57,002
<b>Derivatives Not Designated as Hedges</b>			
Cash received (paid) on settlement of derivative instruments			
Natural gas <sup>(1)</sup>	\$—	\$(73,020 )	\$—
Crude oil and condensate <sup>(1)</sup>	—	(408 )	—
Gain (loss) on derivative instruments	194,289	81,716	—
Non-cash gain (loss) on derivative instruments			
Gain (loss) on derivative instruments	(137,603 )	137,603	—
	\$56,686	\$145,891	\$—
	\$56,686	\$75,116	\$57,002

(1) Relates entirely to the reclassification from accumulated other comprehensive income (loss) of previously frozen losses associated with derivatives that were de-designated as cash flow hedges on April 1, 2014.

There was no ineffectiveness recorded in the Company's Consolidated Statement of Operations related to its derivative instruments designated as cash flow hedges for the years ended December 31, 2014 and 2013, respectively.

**Additional Disclosures about Derivative Instruments and Hedging Activities**

The use of derivative instruments involves the risk that the counterparties will be unable to meet their obligations under the agreements. The Company's counterparties are primarily commercial banks and financial service institutions that management believes present minimal credit risk and its derivative contracts are with multiple counterparties to minimize its exposure to any individual counterparty. The Company performs both quantitative and qualitative assessments of these counterparties based on their credit ratings and credit default swap rates where applicable. Certain counterparties to the Company's derivative instruments are also lenders under its revolving credit facility. The Company's revolving credit facility and derivative instruments contain certain cross default and acceleration provisions that may require immediate payment of its derivative liabilities in certain situations. The Company also has netting arrangements with each of its counterparties that allow it to offset assets and liabilities from separate derivative contracts with that counterparty.

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## 7. Fair Value Measurements

## Financial Assets and Liabilities

The following fair value hierarchy table presents information about the Company's financial assets and liabilities measured at fair value on a recurring basis:

(In thousands)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at December 31, 2015
Assets				
Deferred compensation plan	\$ 12,921	\$—	\$—	\$ 12,921
Total assets	\$ 12,921	\$—	\$—	\$ 12,921
Liabilities				
Deferred compensation plan	\$ 22,371	\$—	\$—	\$ 22,371
Total liabilities	\$ 22,371	\$—	\$—	\$ 22,371

(In thousands)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at December 31, 2014
Assets				
Deferred compensation plan	\$ 13,115	\$—	\$—	\$ 13,115
Derivative instruments	—	51,645	85,958	137,603
Total assets	\$ 13,115	\$ 51,645	\$ 85,958	\$ 150,718
Liabilities				
Deferred compensation plan	\$ 28,932	\$—	\$—	\$ 28,932
Total liabilities	\$ 28,932	\$—	\$—	\$ 28,932

The Company's investments associated with its deferred compensation plan consist of mutual funds and deferred shares of the Company's common stock that are publicly traded and for which market prices are readily available. The derivative instruments were measured based on quotes from the Company's counterparties. Such quotes have been derived using an income approach that considers various inputs including current market and contractual prices for the underlying instruments, quoted forward prices for natural gas and crude oil, basis differentials, volatility factors and interest rates, such as a LIBOR curve for a similar length of time as the derivative contract term as applicable. Estimates are verified using relevant NYMEX futures contracts and/or are compared to multiple quotes obtained from counterparties for reasonableness. The determination of the fair values presented above also incorporates a credit adjustment for non-performance risk. The Company measured the non-performance risk of its counterparties by reviewing credit default swap spreads for the various financial institutions with which it has derivative transactions while non-performance risk of the Company is evaluated using a market credit spread provided by the Company's bank. The Company has not incurred any losses related to non-performance risk of its counterparties and does not anticipate any material impact on its financial results due to non-performance by third parties.

The most significant unobservable inputs relative to the Company's Level 3 derivative contracts are basis differentials and volatility factors. An increase (decrease) in these unobservable inputs would result in an increase (decrease) in fair value, respectively. The Company does not have access to the specific assumptions used in its counterparties' valuation models. Consequently, additional disclosures regarding significant Level 3 unobservable inputs were not

provided.

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The following table sets forth a reconciliation of changes in the fair value of financial assets and liabilities classified as Level 3 in the fair value hierarchy:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Balance at beginning of period	\$85,958	\$(3,910)	) \$41,159
Total gains (losses) (realized or unrealized):			
Included in earnings	32,864	35,067	52,733
Included in other comprehensive income	—	3,755	(45,069)
Settlements	(118,822)	) 51,046	(52,733)
Transfers in and/or out of level 3	—	—	—
Balance at end of period	\$—	\$85,958	\$(3,910)
Change in unrealized gains (losses) relating to assets and liabilities still held at the end of the period	\$—	\$85,958	\$—

There were no transfers between Level 1 and Level 2 fair value measurements for the years ended December 31, 2015, 2014 and 2013.

**Non-Financial Assets and Liabilities**

The Company discloses or recognizes its non-financial assets and liabilities, such as impairments and acquisitions of oil and gas properties, at fair value on a nonrecurring basis. During the year ended December 31, 2014, the Company acquired certain oil and gas properties that were allocated based on the relative fair value of the proved and unproved properties. The Company also recorded an impairment charge related to certain oil and gas properties during the years ended December 31, 2015 and 2014. Refer to Note 2 for additional disclosures related to the non-recurring fair value measurements associated with these acquisitions and Note 3 for additional disclosures related to fair value associated with the impaired assets. As none of the Company's other non-financial assets and liabilities were measured at fair value as of December 31, 2015, 2014 and 2013 additional disclosures were not required.

The estimated fair value of the Company's asset retirement obligation at inception is determined by utilizing the income approach by applying a credit-adjusted risk-free rate, which takes into account the Company's credit risk, the time value of money, and the current economic state to the undiscounted expected abandonment cash flows. Given the unobservable nature of the inputs, the measurement of the asset retirement obligations was classified as Level 3 in the fair value hierarchy.

**Fair Value of Other Financial Instruments**

The estimated fair value of financial instruments is the amount at which the instrument could be exchanged currently between willing parties. The carrying amount reported in the Consolidated Balance Sheet for cash and cash equivalents approximate fair value due to the short-term maturities of these instruments. Cash and cash equivalents are classified as Level 1 in the fair value hierarchy and the remaining financial instruments are classified as Level 2. The Company uses available market data and valuation methodologies to estimate the fair value of debt. The fair value of debt is the estimated amount the Company would have to pay a third party to assume the debt, including a credit spread for the difference between the issue rate and the period end market rate. The credit spread is the Company's default or repayment risk. The credit spread (premium or discount) is determined by comparing the Company's senior notes and revolving credit facility to new issuances (secured and unsecured) and secondary trades of similar size and credit statistics for both public and private debt. The fair value of all senior notes and the revolving credit facility is based on interest rates currently available to the Company. The Company's debt is valued using an income approach and classified as Level 3 in the fair value hierarchy.



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The carrying amount and fair value of debt is as follows:

(In thousands)	December 31, 2015		December 31, 2014	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Debt	\$2,025,000	\$1,848,391	\$1,752,000	\$1,850,867
Current maturities	(20,000	) (20,378	) —	—
Long-term debt, excluding current maturities	\$2,005,000	\$1,828,013	\$1,752,000	\$1,850,867

## 8. Asset Retirement Obligations

Activity related to the Company's asset retirement obligations is as follows:

(In thousands)	Year Ended December 31, 2015
Balance at beginning of period	\$126,655
Liabilities incurred	12,235
Liabilities settled	(175
Accretion expense	6,891
Balance at end of period	\$145,606

As of December 31, 2015 and 2014, approximately \$2.0 million is included in accrued liabilities in the Consolidated Balance Sheet, which represents the current portion of the Company's asset retirement obligation.

## 9. Commitments and Contingencies

## Transportation and Gathering Agreements

The Company has entered into certain natural gas, oil and NGL transportation and gathering agreements with various pipeline carriers. Under certain of these agreements, the Company is obligated to transport minimum daily quantities, or pay for any deficiencies at a specified rate. The Company is also obligated under certain of these arrangements to pay a demand charge for firm capacity rights on pipeline systems regardless of the amount of pipeline capacity utilized by the Company. In most cases, the Company's production commitment to these pipelines is expected to exceed minimum daily quantities provided in the agreements. If the Company does not utilize the capacity, it can release it to others, thus reducing its potential liability.

As of December 31, 2015, the Company's future minimum obligations under transportation and gathering agreements are as follows:

(In thousands)	
2016	\$136,468
2017	178,699
2018	151,233
2019	139,387
2020	133,960
Thereafter	1,188,906
	\$1,928,653

## Drilling Rig Commitments

As of December 31, 2015, the Company has remaining commitments for two drilling rigs for its capital program in the Marcellus Shale and Eagle Ford Shale with initial terms ranging from two to three years. As of December 31, 2015, the future minimum commitments under these agreements are \$7.7 million in 2016.

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## Lease Commitments

The Company leases certain office space, warehouse facilities, vehicles, machinery and equipment under cancelable and non-cancelable leases. Rent expense under these arrangements totaled \$13.9 million, \$10.8 million and \$12.3 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Future minimum rental commitments under non-cancelable leases in effect at December 31, 2015 are as follows:

(In thousands)

2016	\$7,471
2017	7,036
2018	6,549
2019	6,224
2020	5,834
Thereafter	10,976
	<u>\$44,090</u>

## Legal Matters

The Company is a defendant in various other legal proceedings arising in the normal course of business. All known liabilities are accrued when management determines they are probable based on its best estimate of the potential loss. While the outcome and impact of these legal proceedings on the Company cannot be predicted with certainty, management believes that the resolution of these proceedings will not have a material effect on the Company's financial position, results of operations or cash flows.

## Contingency Reserves

When deemed necessary, the Company establishes reserves for certain legal proceedings. The establishment of a reserve is based on an estimation process that includes the advice of legal counsel and subjective judgment of management. While management believes these reserves to be adequate, it is reasonably possible that the Company could incur additional losses with respect to those matters in which reserves have been established. The Company believes that any such amount above the amounts accrued would not be material to the Consolidated Financial Statements. Future changes in facts and circumstances not currently foreseeable could result in the actual liability exceeding the estimated ranges of loss and amounts accrued.

## 10. Income Taxes

Income tax expense (benefit) is summarized as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Current			
Federal	\$983	\$44,887	\$56,544
State	(1,397)	) (4,387	) 10,841
	(414	) 40,500	67,385
Deferred			
Federal	(72,869	) (32,375	) 111,147
State	(99	) (80,192	) 27,233
	(72,968	) (112,567	) 138,380
Income tax expense (benefit)	\$(73,382	) \$(72,067	) \$205,765

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Income tax expense (benefit) was different than the amounts computed by applying the statutory federal income tax rate as follows:

(In thousands)	Year Ended December 31,					
	2015		2014		2013	
Statutory federal income tax rate	35	%	35	%	35	%
Computed "expected" federal income tax	\$(65,546	)	\$11,341	)	\$169,938	)
State income tax, net of federal income tax benefit	(3,152	)	903	)	17,513	)
Deferred tax adjustment related to change in overall state tax rate	2,822	)	(86,956	)	15,220	)
Valuation allowance	187	)	3,977	)	—	)
Uncertain tax positions	—	)	(1,974	)	2,400	)
Provision to return adjustments	(6,326	)	(791	)	700	)
Other, net	(1,367	)	1,433	)	(6	)
Income tax expense (benefit)	\$(73,382	)	\$(72,067	)	\$205,765	)

The composition of deferred tax liabilities and deferred tax assets were as follows:

(In thousands)	December 31,	
	2015	2014
Deferred Tax Assets		
Net operating losses	\$223,402	\$141,961
Alternative minimum tax credits	228,693	227,719
Foreign tax credits	3,837	4,525
Incentive compensation	22,509	21,961
Deferred compensation	7,869	9,531
Post-retirement benefits	13,556	13,689
Other	2,905	5,526
Less valuation allowance	(4,965	) (4,779
Total	497,806	420,133
Deferred Tax Liabilities		
Properties and equipment	1,303,840	1,248,532
Equity method investments	1,202	—
Derivative instruments	—	50,750
Total	1,305,042	1,299,282
Net deferred tax liabilities	\$807,236	\$879,149

As of December 31, 2015, the Company had alternative minimum tax credit carryforwards of \$228.7 million, which do not expire and can be used to offset regular income taxes in future years to the extent that regular income taxes exceed the alternative minimum tax in any such year. The Company also had net operating loss carryforwards of \$685.3 million and \$530.4 million for federal and state reporting purposes, respectively, the majority of which will expire between 2021 and 2035. The Company has \$4.6 million of state valuation allowances, and believes it is more likely than not that the remainder of the deferred tax benefits will be realized prior to their expiration. Tax benefits related to employee stock-based compensation included in net operating loss carryforwards but not reflected in deferred tax assets as of December 31, 2015 are approximately \$117.8 million.

For state income tax purposes, the Company must estimate the respective amounts of future earnings that are subject to income tax in the various states in which the Company operates. These estimates may change based on a variety of factors, including, but not limited to, the composition and location of the Company's asset base, its employees, and its customers. In 2015, the Company's overall effective tax rate increased compared to 2014. The overall effective tax rate was significantly lower in 2014 due to a change in the effective state income tax rate based on updated state apportionment factors in the states in which the Company operates. The 2014 decrease in the Company's state apportionment factors was primarily driven by a shift



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in the sourcing of revenues based on the location of customers to whom the Company ultimately sells its natural gas in the northeast United States. The 2014 decrease in the effective state income tax rate significantly affected the Company's estimated net state deferred tax liabilities reflected in its Consolidated Balance Sheet, resulting in an income tax benefit of approximately \$87.0 million that was reflected in the Company's provision for income taxes in 2014.

**Unrecognized Tax Benefits**

A reconciliation of unrecognized tax benefits is as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Balance at beginning of year	\$663	\$3,700	\$—
Additions based on tax provisions related to the current year	—	—	3,700
Additions for tax positions of prior years	—	—	—
Reductions for tax positions of prior years	—	(3,037)	—
Settlements	—	—	—
Balance at end of year	\$663	\$663	\$3,700

During 2013, the Company recorded unrecognized tax benefits of \$3.7 million based on the allocation of certain gains associated with its divestitures for purposes of computing state income taxes. These benefits were reduced during 2014 by \$3.0 million based on changes to the Company's state tax rates. There was no change to the Company's unrecognized tax benefits during 2015. If recognized, the net tax benefit of \$0.7 million would not have a material effect on the Company's effective tax rate.

The Company files income tax returns in the U.S. federal, various states and other jurisdictions. The Company is no longer subject to examinations by state authorities before 2011 or by federal authorities before 2012. The Company is currently under examination by the Internal Revenue Service for its 2012 tax year. The Company believes that appropriate provisions have been made for all jurisdictions and all open years, and that any assessment on these filings will not have a material impact on the Company's financial position, results of operations or cash flows.

**11. Employee Benefit Plans****Postretirement Benefits**

The Company provides certain health care benefits for retired employees, including their spouses, eligible dependents and surviving spouses (retirees). These benefits are commonly called postretirement benefits. The health care plans are contributory, with participants' contributions adjusted annually. Most employees become eligible for these benefits if they meet certain age and service requirements at retirement. The Company was providing postretirement benefits to 276 retirees and their dependents at the end of 2015 and 278 retirees and their dependents at the end of 2014.

**Obligations and Funded Status**

The funded status represents the difference between the accumulated benefit obligation of the Company's postretirement plan and the fair value of plan assets at December 31. The postretirement plan does not have any plan assets; therefore, the unfunded status is equal to the amount of the December 31 accumulated benefit obligation.

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The change in the Company's postretirement benefit obligation is as follows:

(In thousands)	Year Ended December 31,			
	2015	2014	2013	
Change in Benefit Obligation				
Benefit obligation at beginning of year	\$37,076	\$34,995	\$40,168	
Service cost	1,808	1,295	1,739	
Interest cost	1,448	1,343	1,500	
Actuarial (gain) loss	(2,829	) 373	(7,618	)
Benefits paid	(877	) (930	) (794	)
Benefit obligation at end of year	\$36,626	\$37,076	\$34,995	
Change in Plan Assets				
Fair value of plan assets at end of year	—	—	—	
Funded status at end of year	\$(36,626	) \$(37,076	) \$(34,995	)

Amounts Recognized in the Balance Sheet

Amounts recognized in the balance sheet consist of the following:

(In thousands)	December 31,		
	2015	2014	2013
Current liabilities	\$1,333	\$1,249	\$1,441
Long-term liabilities	35,293	35,827	33,554
	\$36,626	\$37,076	\$34,995

Amounts Recognized in Accumulated Other Comprehensive Income (Loss)

Amounts recognized in accumulated other comprehensive income (loss) consist of the following:

(In thousands)	December 31,		
	2015	2014	2013
Net actuarial loss	\$580	\$3,408	\$3,010
	\$580	\$3,408	\$3,010

Components of Net Periodic Benefit Cost and Other Amounts Recognized in Other Comprehensive Income (Loss)

(In thousands)	Year Ended December 31,			
	2015	2014	2013	
Components of Net Periodic Postretirement Benefit Cost				
Service cost	\$1,808	\$1,295	\$1,739	
Interest cost	1,448	1,343	1,500	
Amortization of net loss	—	(26	) 641	
Net periodic postretirement cost	\$3,256	\$2,612	\$3,880	
Other Changes in Benefit Obligations Recognized in Other Comprehensive Income (Loss)				
Net gain (loss)	\$(2,829	) \$373	\$(7,618	)
Amortization of net (gain) loss	—	26	(641	)
Total recognized in other comprehensive income	(2,829	) 399	(8,259	)
Total recognized in net periodic benefit cost and other comprehensive income (loss)	\$427	\$3,011	\$(4,379	)

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## Assumptions

Assumptions used to determine projected postretirement benefit obligations and postretirement costs are as follows:

	December 31,			
	2015	2014	2013	
Discount rate <sup>(1)</sup>	4.25	% 4.00	% 4.75	%
Health care cost trend rate for medical benefits assumed for next year	5.50	% 6.00	% 6.50	%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.50	% 4.50	% 4.50	%
Year that the rate reaches the ultimate trend rate	2018	2018	2018	

(1) Represents the year end rates used to determine the projected benefit obligation. To compute postretirement cost in 2015, 2014 and 2013, respectively, the beginning of year discount rates of 4.00%, 4.75% and 4.00% were used. Coverage provided to participants age 65 and older is under a fully-insured arrangement. The Company subsidy is limited to 60% of the expected annual fully-insured premium for participants age 65 and older. For all participants under age 65, the Company subsidy for all retiree medical and prescription drug benefits, beginning January 1, 2006, was limited to an aggregate annual amount not to exceed \$648,000. This limit increases by 3.5% annually thereafter. Assumed health care cost trend rates may have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

(In thousands)	1-Percentage-Point Increase	1-Percentage-Point Decrease	
Effect on total of service and interest cost	\$ 618	\$(539)	)
Effect on postretirement benefit obligation	5,849	(4,718)	)

## Cash Flows

**Contributions.** The Company expects to contribute approximately \$1.4 million to the postretirement benefit plan in 2016.

**Estimated Future Benefit Payments.** The following estimated benefit payments under the Company's postretirement plans, which reflect expected future service, are expected to be paid as follows:

(In thousands)	
2016	1,361
2017	1,430
2018	1,551
2019	1,718
2020	1,875
Years 2021 - 2025	11,404

## Savings Investment Plan

The Company has a Savings Investment Plan (SIP), which is a defined contribution plan. The Company matches a portion of employees' contributions in cash. Participation in the SIP is voluntary and all regular employees of the Company are eligible to participate. The Company matches employee contributions dollar-for-dollar, up to the maximum IRS limit, on the first six percent of an employee's pretax earnings. The SIP also provides for discretionary profit sharing contributions in an amount equal to nine percent of an eligible plan participant's salary and bonus. During the years ended December 31, 2015, 2014 and 2013, the Company made contributions of \$7.1 million, \$7.2 million and \$6.9 million, respectively, which are included in general and administrative expense in the Consolidated Statement of Operations. The Company's common stock is an investment option within the SIP.

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### Deferred Compensation Plan

The Company has a deferred compensation plan which is available to officers and certain members of the Company's management group and acts as a supplement to the SIP. The Internal Revenue Code does not cap the amount of compensation that may be taken into account for purposes of determining contributions to the deferred compensation plan and does not impose limitations on the amount of contributions to the deferred compensation plan. At the present time, the Company anticipates making a contribution to the deferred compensation plan on behalf of a participant in the event that Internal Revenue Code limitations cause a participant to receive less than the Company matching contribution under the SIP.

The assets of the deferred compensation plan are held in a rabbi trust and are subject to additional risk of loss in the event of bankruptcy or insolvency of the Company.

Under the deferred compensation plan, the participants direct the deemed investment of amounts credited to their accounts. The trust assets are invested in either mutual funds that cover the investment spectrum from equity to money market, or may include holdings of the Company's common stock, which is funded by the issuance of shares to the trust. The mutual funds are publicly traded and have market prices that are readily available. The Company's common stock is not currently an investment option in the deferred compensation plan. Shares of the Company's stock currently held in the deferred compensation plan represent vested performance share awards that were previously deferred into the rabbi trust. Settlement payments are made to participants in cash, either in a lump sum or in periodic installments. The market value of the trust assets, excluding the Company's common stock, was \$12.9 million and \$13.1 million at December 31, 2015 and 2014, respectively, and is included in other assets in the Consolidated Balance Sheet. Related liabilities, including the Company's common stock, totaled \$22.4 million and \$28.9 million at December 31, 2015 and 2014, respectively, and are included in other liabilities in the Consolidated Balance Sheet. With the exception of the Company's common stock, there is no impact on earnings or earnings per share from the changes in market value of the deferred compensation plan assets because the changes in market value of the trust assets are offset completely by changes in the value of the liability, which represents trust assets belonging to plan participants.

As of December 31, 2015 and 2014, 534,174 shares of the Company's common stock were held in the rabbi trust. These shares were recorded at the market value on the date of deferral, which totaled \$5.7 million at December 31, 2015 and 2014, respectively, and is included in additional paid-in capital in stockholders' equity in the Consolidated Balance Sheet. The Company recognized compensation expense (benefit) of \$(6.4) million, \$(4.9) million and \$7.4 million in 2015, 2014 and 2013, respectively, which is included in general and administrative expense in the Consolidated Statement of Operations representing the increase (decrease) in the closing price of the Company's shares held in the trust. The Company's common stock issued to the trust is not considered outstanding for purposes of calculating basic earnings per share, but is considered a common stock equivalent in the calculation of diluted earnings per share.

The Company made contributions to the deferred compensation plan of \$1.0 million, \$0.8 million and \$0.7 million in 2015, 2014 and 2013, respectively, which are included in general and administrative expense in the Consolidated Statement of Operations.

### 12. Capital Stock

#### Incentive Plans

On May 1, 2014, the Company's shareholders approved the 2014 Incentive Plan, which replaced the 2004 Incentive Plan that expired on April 29, 2014. Under the 2014 Incentive Plan, incentive and non-statutory stock options, stock appreciation rights (SARs), stock awards, cash awards and performance awards may be granted to key employees, consultants and officers of the Company. Non-employee directors of the Company may be granted discretionary awards under the 2014 Incentive Plan consisting of stock options or stock awards. A total of 18 million shares of common stock may be issued under the 2014 Incentive Plan. Under the 2014 Incentive Plan, no more than 10 million shares may be issued pursuant to incentive stock options. No additional awards may be granted under the 2014 Incentive Plan on or after May 1, 2024. At December 31, 2015, approximately 17.1 million shares are available for issuance under the 2014 Incentive Plan.



No additional awards will be granted under any of the Company's prior plans, including the 2004 Incentive Plan. Awards outstanding under the 2004 Incentive Plan will remain outstanding in accordance with their original terms and conditions.

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### Treasury Stock

In August 1998, the Board of Directors authorized a share repurchase program under which the Company may purchase shares of common stock in the open market or in negotiated transactions. The timing and amount of these stock purchases are determined at the discretion of management. The Company may use the repurchased shares to fund stock compensation programs presently in existence, or for other corporate purposes. All purchases executed to date have been through open market transactions. There is no expiration date associated with the authorization to repurchase shares of the Company.

During 2015, there were no share repurchases. During the year ended December 31, 2014 and 2013, the Company repurchased 4.3 million shares for a total cost of \$138.9 million and 4.8 million shares for a total cost of \$164.6 million, respectively. Since the authorization date, the Company has repurchased 29.9 million shares of the 40.0 million total shares authorized, of which 20.0 million shares have been retired, for a total cost of approximately \$388.4 million. No treasury shares have been delivered or sold by the Company subsequent to the repurchase. As of December 31, 2015, 9.9 million shares were held as treasury stock.

### Dividend Restrictions

The Board of Directors of the Company determines the amount of future cash dividends, if any, to be declared and paid on the common stock depending on, among other things, the Company's financial condition, funds from operations, the level of its capital and exploration expenditures, and its future business prospects. None of the senior note or credit agreements in place have restricted payment provisions or other provisions limiting dividends.

## 13. Stock-Based Compensation

### General

Stock-based compensation expense for the years ended December 31, 2015, 2014 and 2013 was \$13.7 million, \$21.5 million and \$51.8 million, respectively, and is included in general and administrative expense in the Consolidated Statement of Operations.

For the years ended December 31, 2014 and 2013, the Company realized \$(1.4) million and \$18.9 million tax (expense) benefit related to the federal tax deduction in excess of book compensation cost for employee stock-based compensation. There was no tax benefit recognized from stock-based compensation during the year ended December 31, 2015. The Company is able to recognize tax benefits only to the extent they reduce the Company's income taxes payable.

### Restricted Stock Awards

Restricted stock awards are granted from time to time to employees of the Company. The fair value of restricted stock grants under the 2014 Incentive Plan is based on the closing stock price on the grant date. Restricted stock awards generally vest either at the end of a three year service period or on a graded or graduated vesting basis at each anniversary date over a three or four year service period.

For awards that vest at the end of the service period, expense is recognized ratably using a straight-line approach over the service period. Under the graded or graduated approach, the Company recognizes compensation cost ratably over the requisite service period, as applicable, for each separately vesting tranche as though the awards are, in substance, multiple awards. For all restricted stock awards, vesting is dependent upon the employees' continued service with the Company, with the exception of employment termination due to death, disability or retirement. The Company accelerates the vesting period for retirement-eligible employees for purposes of recognizing compensation expense in accordance with the vesting provisions of the Company's stock-based compensation programs.

The Company used an annual forfeiture rate assumption ranging from 5.0% to 6.0% for purposes of recognizing stock-based compensation expense for restricted stock awards. The annual forfeiture rates were based on the Company's actual forfeiture history for this type of award to various employee groups.

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The following table is a summary of restricted stock award activity:

	Year Ended December 31, 2015		2014		2013	
	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding at beginning of period	49,869	\$33.40	27,806	\$20.53	71,508	\$11.82
Granted	5,900	25.44	47,500	34.76	7,200	35.70
Vested	(5,944 )	22.55	(17,437 )	15.84	(50,902 )	10.44
Forfeited	—	—	(8,000 )	35.00	—	—
Outstanding at end of period <sup>(1)(2)</sup>	49,825	\$33.76	49,869	\$33.40	27,806	\$20.53

As of December 31, 2015, the aggregate intrinsic value was \$0.9 million and was calculated by multiplying the (1) closing market price of the Company's stock on December 31, 2015 by the number of non-vested restricted stock awards outstanding.

(2) As of December 31, 2015, the weighted average remaining contractual term of non-vested restricted stock awards outstanding was 1.2 years.

Compensation expense recorded for all restricted stock awards for the years ended December 31, 2015, 2014 and 2013 was \$0.4 million, \$1.0 million and \$0.2 million, respectively. Unamortized expense as of December 31, 2015 for all outstanding restricted stock awards was \$0.5 million and will be recognized over the next year.

The total fair value of restricted stock awards that vested during 2015, 2014 and 2013 was \$0.2 million, \$0.6 million and \$1.6 million, respectively.

#### Restricted Stock Units

Restricted stock units are granted from time to time to non-employee directors of the Company. The fair value of the restricted stock units under the 2014 Incentive Plan is based on the closing stock price on the grant date. These units vest immediately and compensation expense is recorded immediately. Restricted stock units are issued when the director ceases to be a director of the Company.

The following table is a summary of restricted stock unit activity:

	Year Ended December 31, 2015		2014		2013	
	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding at beginning of period	604,214	\$12.48	566,321	\$10.75	515,468	\$9.10
Granted and fully vested	51,292	27.87	37,893	38.28	50,853	27.53
Issued	(230,068 )	13.45	—	—	—	—
Forfeited	—	—	—	—	—	—
Outstanding at end of period <sup>(1)(2)</sup>	425,438	\$13.81	604,214	\$12.48	566,321	\$10.75

(1) As of December 31, 2015, the aggregate intrinsic value was \$7.5 million and was calculated by multiplying the closing market price of the Company's stock on December 31, 2015 by the number of outstanding restricted stock

units.

(2) Due to the immediate vesting of the units and the unknown term of each director, the weighted-average remaining contractual term in years has not been provided.

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Compensation expense recorded for all restricted stock units for the years ended December 31, 2015, 2014 and 2013 was \$1.4 million, \$1.5 million and \$1.4 million, respectively, which reflects the total fair value of these units.

**Stock Appreciation Rights**

Stock appreciation rights (SARs) allow the employee to receive any intrinsic value over the grant date market price that may result from the price appreciation of the common shares granted. All of these awards have graded-vesting features and vest over a service period of three years, with one-third of the award becoming exercisable each year on the anniversary date of the grant and have a contractual term of seven years.

The following table is a summary of SAR activity:

	Year Ended December 31,		2014		2013	
	2015	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Outstanding at beginning of period	667,764	\$12.63	667,764	\$12.63	1,722,444	\$9.75
Granted	—	—	—	—	—	—
Exercised	(109,218 )	13.19	—	—	(1,054,680 )	7.92
Forfeited or expired	—	—	—	—	—	—
Outstanding at end of period <sup>(1)</sup>	558,546	\$12.52	667,764	\$12.63	667,764	\$12.63
Exercisable at end of period <sup>(2)</sup>	558,546	\$12.52	590,960	\$11.98	386,582	\$11.33

The intrinsic value of a SAR is the amount which the current market value of the underlying stock exceeds the (1) exercise price of the SAR. As of December 31, 2015, the aggregate intrinsic value and weighted-average remaining contractual term of SARs outstanding was \$2.9 million and 2.2 years, respectively.

(2) As of December 31, 2015, the aggregate intrinsic value and weighted-average remaining contractual term of SARs exercisable was \$2.9 million and 2.2 years, respectively.

Compensation expense recorded for all outstanding SARs for the years ended December 31, 2014 and 2013 was \$0.1 million and \$0.3 million, respectively. As of December 31, 2014, there was no remaining unamortized expense to be recognized for the outstanding SARs.

The expected term was derived by reviewing minimum and maximum expected term outputs from the Black-Scholes model based on award type and employee type. This term represents the period of time that awards granted are expected to be outstanding. The stock price volatility was calculated using historical closing stock price data for the Company for the period associated with the expected term through the grant date of each award. The risk free rate of return percentages are based on the continuously compounded equivalent of the U.S. Treasury (Nominal 10) within the expected term as measured on the grant date. The expected dividend percentage assumes that the Company will continue to pay a consistent level of dividend each quarter.

**Performance Share Awards**

The Company grants three types of performance share awards: two based on performance conditions measured against the Company's internal performance metrics (Employee Performance Share Awards and Hybrid Performance Share Awards) and one based on market conditions measured based on the Company's performance relative to a predetermined peer group (TSR Performance Share Awards). The performance period for these awards commences on January 1 of the respective year in which the award was granted and extends over a three-year performance period. For all performance share awards, the Company used an annual forfeiture rate assumption ranging from 0% to 6% for purposes of recognizing stock-based compensation expense for its performance share awards.

**Performance Share Awards Based on Internal Performance Metrics**

The fair value of performance award grants based on internal performance metrics is based on the closing stock price on the grant date. Each performance award represents the right to receive up to 100% of the award in shares of common stock.



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Employee Performance Share Awards. The Employee Performance Share Awards vest at the end of the three-year performance period. An employee will earn one-third of the award for each of the three performance metrics that the Company meets. These performance metrics are set by the Company's Compensation Committee and are based on the Company's average production, average finding costs and average reserve replacement over a three-year performance period. Based on the Company's probability assessment at December 31, 2015, it is considered probable that all of the criteria for these awards will be met.

The following table is a summary of activity for Employee Performance Share Awards:

	Year Ended December 31,					
	2015		2014		2013	
	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding at beginning of period	1,088,960	\$25.18	1,657,980	\$16.25	1,919,640	\$12.27
Granted	349,780	27.71	241,130	39.43	379,540	26.62
Issued and fully vested	(504,620 )	17.59	(751,780 )	10.19	(610,960 )	10.13
Forfeited	(8,530 )	31.11	(58,370 )	23.57	(30,240 )	17.06
Outstanding at end of period	925,590	\$30.23	1,088,960	\$25.18	1,657,980	\$16.25

Hybrid Performance Share Awards. The Hybrid Performance Share Awards have a three-year graded performance period. The awards vest 25% on each of the first and second anniversary dates and 50% on the third anniversary provided that the Company has \$100 million or more of operating cash flow for the year preceding the vesting date, as set by the Company's Compensation Committee. If the Company does not meet the performance metric for the applicable period, then the portion of the performance shares that would have been issued on that anniversary date will be forfeited. Based on the Company's probability assessment at December 31, 2015, it is considered probable that the criteria for these awards will be met.

The following table is a summary of activity for the Hybrid Performance Share Awards:

	Year Ended December 31,					
	2015		2014		2013	
	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share	Shares	Weighted-Average Grant Date Fair Value per Share
Outstanding at beginning of period	329,061	\$29.27	450,212	\$18.96	592,162	\$13.11
Granted	194,947	27.71	123,257	39.43	169,980	26.62
Issued and fully vested	(151,623 )	24.56	(244,408 )	15.41	(311,930 )	12.03
Forfeited	—	—	—	—	—	—
Outstanding at end of period	372,385	\$30.37	329,061	\$29.27	450,212	\$18.96

#### Performance Share Awards Based on Market Conditions

These awards have both an equity and liability component, with the right to receive up to the first 100% of the award in shares of common stock and the right to receive up to an additional 100% of the value of the award in excess of the equity component in cash. The equity portion of these awards is valued on the grant date and is not marked to market, while the liability portion of the awards is valued as of the end of each reporting period on a mark-to-market basis.

The Company calculates the fair value of the equity and liability portions of the awards using a Monte Carlo

simulation model.

TSR Performance Share Awards. The TSR Performance Share Awards granted are earned, or not earned, based on the comparative performance of the Company's common stock measured against a predetermined group of companies in the Company's peer group over a three-year performance period.

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The following table is a summary of activity for the TSR Performance Share Awards:

	Year Ended December 31,					
	2015		2014		2013	
	Shares	Weighted-Average Grant Date Fair Value per Share <sup>(1)</sup>	Shares	Weighted-Average Grant Date Fair Value per Share <sup>(1)</sup>	Shares	Weighted-Average Grant Date Fair Value per Share <sup>(1)</sup>
Outstanding at beginning of period	674,787	\$22.42	860,686	\$14.06	605,706	\$10.27
Granted	292,421	19.29	184,885	32.04	254,980	23.06
Issued and fully vested	(234,922 )	14.16	(370,784 )	7.81	—	—
Forfeited	—	—	—	—	—	—
Outstanding at end of period	732,286	\$23.82	674,787	\$22.42	860,686	\$14.06

(1) The grant date fair value figures in this table represent the fair value of the equity component of the performance share awards.

The current portion of the liability, included in accrued liabilities in the Consolidated Balance Sheet at December 31, 2015 and 2014 was \$1.8 million and \$7.0 million, respectively. The non-current portion of the liability for the TSR Performance Share Awards, included in other liabilities in the Consolidated Balance Sheet at December 31, 2015 and 2014, was \$0.9 million and \$4.0 million, respectively. The Company made cash payments during the years ended December 31, 2015 and 2014 of \$7.0 million and \$14.3 million, respectively. There were no cash payouts during 2013 associated with the TSR Performance Share Awards.

The following assumptions were used to determine the grant date fair value of the equity component of the TSR Performance Share Awards for the respective periods:

	Year Ended December 31,			
	2015	2014	2013	
Fair value per performance share award granted during the period	\$19.29	\$32.04	\$23.06	
Assumptions				
Stock price volatility	32.3	% 41.3	% 43.8	%
Risk free rate of return	1.0	% 0.7	% 0.4	%
Expected dividend yield	0.3	% 0.2	% 0.2	%

The following assumptions were used to determine the fair value of the liability component of the TSR Performance Share Awards for the respective periods:

	December 31,		
	2015	2014	2013
Fair value per performance share award at the end of the period	\$2.49 - \$6.39	\$12.88 - \$29.72	\$23.96 - \$38.61
Assumptions			
Stock price volatility	33.5% - 37.5%	29.1% - 29.7%	30.2% - 35.9%
Risk free rate of return	0.7% - 1.1%	0.3% - 0.7%	0.1% - 0.4%
Expected dividend yield	—%	0.3%	0.2%

The stock price volatility was calculated using historical closing stock price data for the Company for the period associated with the expected term through the grant date of each award. The risk free rate of return percentages are based on the continuously compounded equivalent of the U.S. Treasury (Nominal 10) within the expected term as measured on the grant date. The expected dividend percentage assumes that the Company will continue to pay a consistent level of dividend each quarter.



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## Other Information

Compensation expense recorded for both the equity and liability components of all performance share awards for the years ended December 31, 2015, 2014 and 2013 was \$18.3 million, \$20.8 million and \$30.9 million, respectively.

Total unamortized compensation expense related to the equity component of performance shares at December 31, 2015 was \$18.4 million and will be recognized over the next 1.0 years.

As of December 31, 2015, the aggregate intrinsic value for all performance share awards was \$35.9 million and was calculated by multiplying the closing market price of the Company's stock on December 31, 2015 by the number of unvested performance share awards outstanding. As of December 31, 2015, the weighted average remaining contractual term of unvested performance share awards outstanding was approximately 1.1 years.

On December 31, 2015, the performance period ended for two types of performance share awards that were granted in 2013. For the Employee Performance Share Awards, the calculation of the three-year average of the three internal performance metrics was completed in the first quarter of 2016 and was certified by the Compensation Committee in February 2016. As the Company achieved the three performance metrics, 340,960 shares with a grant date fair value of \$9.1 million were issued in February 2016. For the TSR Performance Share Awards, 254,980 shares with a grant date fair value of \$5.9 million were issued, in addition to a cash payment of \$1.8 million, based on the Company's ranking relative to a predetermined peer group. The calculation of the award payout was certified by the Compensation Committee on January 5, 2016.

## Supplemental Employee Incentive Plan

The Supplemental Employee Incentive Plan (the Plan) adopted by the Company's Board of Directors is intended to provide a compensation tool tied to stock market value creation to serve as an incentive and retention vehicle for full-time, non-officer employees by providing for cash payments in the event the Company's common stock reaches a specified trading price. The Compensation Committee can increase any of the payments as applied to any employee if desired. Any deferred portion will only be paid if the participant is employed by the Company, or has terminated employment by reason of retirement, death or disability (as provided in the Plan). Payments are subject to certain other restrictions contained in the Plan.

The Plan currently provides for a payout if the closing price per share of the Company's common stock for any 20 trading days out of any 60 days consecutive trading days equals or exceeds an interim price goal per share within two years of the effective date of the plan (interim trigger date) or a final price goal per share within four years of the effective date of the plan (final trigger date). Under the Plan and upon approval by the Compensation Committee, each eligible employee may receive a distribution of 20% of base salary if the interim trigger is met or 50% of base salary if the final trigger is met (or an incremental 30% of base salary if the interim trigger was previously achieved). In accordance with the Plan, in the event either the interim or final trigger date occurs within the first 30 months from the effective date, 25% of the total distribution will be paid immediately and the remaining 75% will be deferred and paid at a future date as described in the Plan. For final trigger dates occurring during the last 18 months but before the end of the Plan, total distribution will be paid immediately.

The Plan is accounted for as a liability award under the authoritative accounting guidance for stock-based compensation and is valued as of the end of each reporting period on a mark-to-market basis using a Monte Carlo simulation model. In addition to the expected value of plan payouts, the simulation technique also generates an expected trigger date for the two types of payments made under this plan, which is used to determine the requisite service period. The Company recognized compensation expense (benefit) of \$(0.3) million, \$3.0 million and \$11.5 million for years ended December 31, 2015, 2014 and 2013, respectively, related to the Plan. The Company made payments of \$13.0 million under the Plan for year ended December 31, 2014.

SEIP III. On May 1, 2012, the Company's Board of Directors adopted the Supplemental Employee Incentive Plan III (SEIP III) to replace the Supplemental Employee Incentive Plan II with an effective date of July 1, 2013. The SEIP III provided for a payout under the Plan if the closing price per share of the Company's common stock equals or exceeds the price goal of \$25.00 per share by June 30, 2014 (interim trigger date) or \$37.50 per share by June 30, 2016 (final trigger date).

On February 11, 2013, the Company achieved the price goal of \$25.00 per share prior to the interim trigger date.

Accordingly, a total distribution of approximately \$6.8 million was earned by the Company's eligible employees under

the Plan, of which 25% of the total distribution, or \$1.7 million, was paid in February 2013 and the remaining 75%, or \$4.9 million, was paid in August 2014 in accordance with the SEIP III.

On August 27, 2013, the Company achieved the price goal of \$37.50 per share prior to the final trigger date.

Accordingly, a total distribution of approximately \$11.1 million was earned by the Company's eligible employees under the Plan, of which 25% of the total distribution, or \$2.8 million, was paid in September 2013 and the remaining 75%, or \$8.1 million, was paid in August 2014 in accordance with the SEIP III.

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SEIP IV. On September 19, 2013, the Company's Board of Directors adopted the Supplemental Employee Incentive Plan IV (SEIP IV) to replace the SEIP III with an effective date of October 1, 2013. The SEIP IV provides for a payout under the Plan if the closing price per share of the Company's common stock equals or exceeds the price goal of \$55.00 per share by September 30, 2015 (interim trigger date) or \$80.00 per share by September 30, 2017 (final trigger date). There were no amounts paid with respect to the interim trigger date as the Company's common stock did not equal or exceed the respective interim price goal of \$55.00 per share.

The following assumptions were used to determine the fair value of the SEIP IV liabilities at the end of the respective periods:

	December 31,			
	2015	2014	2013	
Valuation Assumptions				
Stock price volatility	33.9	% 33.4	% 38.0	%
Risk free rate of return	1.0	% 1.0	% 1.1	%
Annual salary increase rate	4.0	% 4.0	% 4.0	%
Annual turnover rate	4.6	% 4.6	% 4.6	%

## Deferred Performance Shares

As of December 31, 2015, 534,174 shares of the Company's common stock representing vested performance share awards were deferred into the deferred compensation plan. No shares were sold out of the plan in 2015. During 2015, a decrease to the deferred compensation liability of \$(6.4) million was recognized, which represents the decrease in the closing price of the Company's shares held in the trust during the period. The decrease in compensation expense was included in general and administrative expense in the Consolidated Statement of Operations.

## 14. Earnings per Common Share

Basic earnings per share (EPS) is computed by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted EPS is similarly calculated except that the common shares outstanding for the period is increased using the treasury stock method to reflect the potential dilution that could occur if outstanding stock appreciation rights were exercised and stock awards were vested at the end of the applicable period.

The following is a calculation of basic and diluted weighted-average shares outstanding:

	December 31,		
(In thousands)	2015	2014	2013
Weighted-average shares - basic	413,696	415,840	420,188
Dilution effect of stock appreciation rights and stock awards at end of period	—	1,761	2,187
Weighted-average shares - diluted	413,696	417,601	422,375
Weighted-average shares excluded from diluted EPS due to the anti-dilutive effect	1,481	20	5

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## 15. Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) by component, net of tax, were as follows:

(In thousands)	Net Gains (Losses) on Cash Flow Hedges	Postretirement Benefits	Total
Balance at December 31, 2012	\$30,717	\$(6,837 )	\$23,880
Other comprehensive income (loss) before reclassifications	(2,720 )	4,641	1,921
Amounts reclassified from accumulated other comprehensive income (loss)	(34,548 )	386	(34,162 )
Net current-period other comprehensive income (loss)	\$(37,268 )	\$5,027	\$(32,241 )
Balance at December 31, 2013	\$(6,551 )	\$(1,810 )	\$(8,361 )
Other comprehensive income (loss) before reclassifications	(80,175 )	(325 )	(80,500 )
Amounts reclassified from accumulated other comprehensive income (loss)	86,726	(16 )	86,710
Net current-period other comprehensive income (loss)	6,551	(341 )	6,210
Balance at December 31, 2014	\$—	\$(2,151 )	\$(2,151 )
Other comprehensive income (loss) before reclassifications	—	1,786	1,786
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	—
Net current-period other comprehensive income (loss)	—	1,786	1,786
Balance at December 31, 2015	\$—	\$(365 )	\$(365 )

Amounts reclassified from accumulated other comprehensive income (loss) into the Consolidated Statement of Operations were as follows:

(In thousands)	Year Ended December 31,			Affected Line Item in the Condensed Consolidated Statement of Operations
	2015	2014	2013	
Net gains (losses) on cash flow hedges				
Commodity contracts	\$—	\$(143,577 )	\$52,733	Natural gas revenues
Commodity contracts	—	(626 )	4,269	Crude oil and condensate revenues
Postretirement benefits				
Amortization of net (gain) loss	—	26	(641 )	General and administrative expense
	—	(144,177 )	56,361	Total before tax
	—	57,467	(22,199 )	Tax expense
Total reclassifications for the period	\$—	\$(86,710 )	\$34,162	Net of tax

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## 16. Additional Balance Sheet Information

Certain balance sheet amounts are comprised of the following:

(In thousands)	December 31,	
	2015	2014
Accounts receivable, net		
Trade accounts	\$116,772	\$227,835
Joint interest accounts	2,013	2,245
Other accounts	2,557	6,515
	121,342	236,595
Allowance for doubtful accounts	(1,113)	(1,198)
	\$120,229	\$235,397
Inventories		
Tubular goods and well equipment	\$14,655	\$10,675
Natural gas in storage	2,364	3,281
Other accounts	30	70
	\$17,049	\$14,026
Other assets		
Deferred compensation plan	\$12,921	\$13,115
Debt issuance cost	23,732	17,349
Other accounts	64	65
	\$36,717	\$30,529
Accounts payable		
Trade accounts	30,038	54,949
Natural gas purchases	2,231	2,407
Royalty and other owners	75,106	97,298
Accrued capital costs	27,479	222,426
Taxes other than income	14,628	16,806
Other accounts	10,925	6,190
	\$160,407	\$400,076
Accrued liabilities		
Employee benefits	\$13,870	\$22,815
Taxes other than income	5,073	7,128
Other accounts	5,980	3,049
	\$24,923	\$32,992
Other liabilities		
Deferred compensation plan	\$22,371	\$28,932
Other accounts	3,653	10,675
	\$26,024	\$39,607

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## 17. Supplemental Cash Flow Information

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Cash paid for interest and income taxes			
Interest	\$92,749	\$58,487	\$63,279
Income taxes	7,550	77,029	35,281
Non-cash investing activities			
Change in accrued capital costs	(194,947	) 72,603	(15,953 )



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CABOT OIL & GAS CORPORATION

SUPPLEMENTAL OIL AND GAS INFORMATION (UNAUDITED)

Oil and Gas Reserves

Users of this information should be aware that the process of estimating quantities of "proved" and "proved developed" natural gas and crude oil reserves is very complex, requiring significant subjective decisions in the evaluation of all available geological, engineering and economic data for each reservoir. The data for a given reservoir may also change substantially over time as a result of numerous factors including, but not limited to, additional development activity, evolving production history and continual reassessment of the viability of production under varying economic conditions. As a result, revisions to existing reserve estimates may occur from time to time. Although every reasonable effort is made to ensure that reserve estimates reported represent the most accurate assessments possible, the subjective decisions and variances in available data for various reservoirs make these estimates generally less precise than other estimates included in the financial statement disclosures.

Estimates of total proved reserves at December 31, 2015, 2014 and 2013 were based on studies performed by the Company's petroleum engineering staff. The estimates were computed using the 12-month average index price for the respective commodity, calculated as the unweighted arithmetic average for the first day of the month price for each month during the respective year. The estimates were audited by Miller and Lents, Ltd. (Miller and Lents), who indicated that based on their investigation and subject to the limitations described in their audit letter, they believe the results of those estimates and projections were reasonable in the aggregate.

No major discovery or other favorable or unfavorable event after December 31, 2015, is believed to have caused a material change in the estimates of proved or proved developed reserves as of that date.

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The following tables illustrate the Company's net proved reserves, including changes, and proved developed and proved undeveloped reserves for the periods indicated, as estimated by the Company's engineering staff. All reserves are located within the continental United States.

	Natural Gas (Bcf)	Crude Oil & NGLs (Mbbbl) <sup>(1)</sup>	Total (Bcfe) <sup>(2)</sup>
December 31, 2012	3,696	24,374	3,842
Revision of prior estimates <sup>(3)</sup>	435	(419)	) 433
Extensions, discoveries and other additions <sup>(4)</sup>	1,661	10,683	1,725
Production	(394)	) (3,221)	) (414)
Sales of reserves in place <sup>(5)</sup>	(103)	) (4,879)	) (132)
December 31, 2013	5,295	26,538	5,454
Revision of prior estimates <sup>(6)</sup>	483	1,688	493
Extensions, discoveries and other additions <sup>(4)</sup>	1,807	17,223	1,911
Production	(508)	) (3,961)	) (532)
Purchases of reserves in place <sup>(7)</sup>	7	11,778	77
Sales of reserves in place	(2)	) (130)	) (2)
December 31, 2014	7,082	53,136	7,401
Revision of prior estimates <sup>(8)</sup>	444	(3,008)	) 426
Extensions, discoveries and other additions <sup>(4)</sup>	896	11,511	965
Production	(566)	) (6,096)	) (603)
Purchases of reserves in place	—	187	1
Sales of reserves in place	—	—	—
December 31, 2015	7,856	55,730	8,190
Proved Developed Reserves			
December 31, 2012	2,216	12,828	2,293
December 31, 2013	3,147	13,652	3,228
December 31, 2014	4,339	27,221	4,502
December 31, 2015	4,676	25,586	4,829
Proved Undeveloped Reserves			
December 31, 2012	1,480	11,546	1,549
December 31, 2013	2,148	12,886	2,226
December 31, 2014	2,743	25,915	2,898
December 31, 2015	3,180	30,144	3,361

(1) NGL reserves were less than 1.0% of our total proved equivalent reserves for 2015, 2014 and 2013 and 16.1%, 13.5% and 12.3% of our proved crude oil and NGL reserves for 2015, 2014 and 2013, respectively.

(2) Includes natural gas and natural gas equivalents determined by using the ratio of 6 Mcf of natural gas to 1 Bbl of crude oil, condensate or NGLs.

(3) The net upward revision of 432.8 Bcfe was primarily due to (i) an upward performance revision of 372.6 Bcfe, primarily in the Dimock field in northeast Pennsylvania and (ii) an upward revision of 60.2 Bcfe associated with commodity pricing.

(4) Extensions, discoveries and other additions were primarily related to drilling activity in the Dimock field located in northeast Pennsylvania. The Company added 890.6 Bcfe, 1,797.8 Bcfe and 1,653.3 Bcfe of proved reserves in this field in 2015, 2014 and 2013, respectively.

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(5) Sales of reserves in place were primarily related to the divestiture of certain oil and gas properties in Oklahoma and west Texas in December 2013 which represented 132.3 Bcfe.

The net upward revision of 493.0 Bcfe was primarily due to (i) an upward performance revision of 492.1 Bcfe, (6) primarily in the Dimock field in northeast Pennsylvania and (ii) an upward revision of 0.9 Bcfe associated with commodity pricing.

(7) Purchases of reserves in place were primarily related to the acquisition of certain oil and gas properties in the Eagle Ford Shale in October and December 2014 which represented 77 Bcfe.

The net upward revision of 425.6 Bcfe was primarily due to an upward performance revision of 702.9 Bcfe (8) associated with positive drilling results in the Dimock field in northeast Pennsylvania, partially offset by a downward revision of 277.3 Bcfe associated with lower commodity prices.

**Capitalized Costs Relating to Oil and Gas Producing Activities**

Capitalized costs relating to oil and gas producing activities and related accumulated depreciation, depletion and amortization were as follows:

(In thousands)	December 31,		
	2015	2014	2013
Aggregate capitalized costs relating to oil and gas producing activities	\$9,554,584	\$8,811,624	\$7,059,200
Aggregate accumulated depreciation, depletion and amortization	(4,586,958 )	(3,893,772 )	(2,518,003 )
Net capitalized costs	\$4,967,626	\$4,917,852	\$4,541,197

**Costs Incurred in Oil and Gas Property Acquisition, Exploration and Development Activities**

Costs incurred in property acquisition, exploration and development activities were as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Property acquisition costs, proved	\$16,312	\$214,737	\$—
Property acquisition costs, unproved	20,097	73,962	71,234
Exploration costs	34,003	36,306	44,906
Development costs	723,451	1,446,728	1,069,965
Total costs	\$793,863	\$1,771,733	\$1,186,105

**Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves**

The following information has been developed based on natural gas and crude oil reserve and production volumes estimated by the Company's engineering staff. It can be used for some comparisons, but should not be the only method used to evaluate the Company or its performance. Further, the information in the following table may not represent realistic assessments of future cash flows, nor should the Standardized Measure of Discounted Future Net Cash Flows (Standardized Measure) be viewed as representative of the current value of the Company.

The Company believes that the following factors should be taken into account when reviewing the following information:

• Future costs and selling prices will differ from those required to be used in these calculations.

• Due to future market conditions and governmental regulations, actual rates of production in future years may vary significantly from the rate of production assumed in the calculations.

• Selection of a 10% discount rate is arbitrary and may not be a reasonable measure of the relative risk that is part of realizing future net oil and gas revenues.

• Future net revenues may be subject to different rates of income taxation.

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Under the Standardized Measure, future cash inflows were estimated by using the 12-month average index price for the respective commodity, calculated as the unweighted arithmetic average for the first day of the month price for each month during the year.

The average prices (adjusted for basis and quality differentials) related to proved reserves are as follows:

	Year Ended December 31,		
	2015	2014	2013
Natural gas	\$1.81	\$3.52	\$3.58
Crude oil	\$47.10	\$93.32	\$101.17
NGLs	\$12.98	\$30.40	\$28.11

In the above table, natural gas prices are stated per Mcf and crude oil and NGL prices are stated per barrel.

Future cash inflows were reduced by estimated future development and production costs based on year end costs to arrive at net cash flow before tax. Future income tax expense was computed by applying year end statutory tax rates to future pretax net cash flows, less the tax basis of the properties involved and utilization of available tax carryforwards related to oil and gas operations. The applicable accounting standards require the use of a 10% discount rate.

Management does not solely use the following information when making investment and operating decisions. These decisions are based on a number of factors, including estimates of proved reserves, and varying price and cost assumptions considered more representative of a range of anticipated economic conditions.

Standardized Measure is as follows:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Future cash inflows	\$16,516,696	\$29,432,733	\$21,383,701
Future production costs	(7,934,427 )	(8,620,320 )	(5,895,024 )
Future development costs	(2,053,562 )	(2,689,406 )	(1,863,534 )
Future income tax expenses	(1,263,452 )	(5,635,790 )	(4,398,348 )
Future net cash flows	5,265,255	12,487,217	9,226,795
10% annual discount for estimated timing of cash flows	(2,406,423 )	(5,994,211 )	(4,527,262 )
Standardized measure of discounted future net cash flows	\$2,858,832	\$6,493,006	\$4,699,533

Changes in Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves

The following is an analysis of the changes in the Standardized Measure:

(In thousands)	Year Ended December 31,		
	2015	2014	2013
Beginning of year	\$6,493,006	\$4,699,533	\$2,735,855
Discoveries and extensions, net of related future costs	305,607	2,306,779	2,082,983
Net changes in prices and production costs	(7,329,445 )	(200,399 )	1,320,490
Accretion of discount	862,078	625,092	313,420
Revisions of previous quantity estimates	161,379	535,904	478,409
Timing and other	427,073	18,225	114,947
Development costs incurred	498,350	414,469	340,500
Sales and transfers, net of production costs	(690,618 )	(1,539,693 )	(1,258,094 )
Net purchases (sales) of reserves in place	3,623	209,484	(275,926 )
Net change in income taxes	2,127,779	(576,388 )	(1,153,051 )
End of year	\$2,858,832	\$6,493,006	\$4,699,533

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## CABOT OIL &amp; GAS CORPORATION

## SELECTED DATA

## QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

(In thousands, except per share amounts)

	First	Second	Third	Fourth	Total
2015					
Operating revenues	\$464,765	\$306,297	\$305,296	\$280,792	\$1,357,150
Impairment of oil and gas properties <sup>(1)</sup>	—	—	—	114,875	114,875
Operating income (loss)	87,295	(18,962)	(1,024)	(157,671)	(90,362)
Net income (loss)	40,255	(27,508)	(15,514)	(111,124)	(113,891)
Basic earnings (loss) per share	0.10	(0.07)	(0.04)	(0.27)	(0.28)
Diluted earnings (loss) per share	0.10	(0.07)	(0.04)	(0.27)	(0.28)
2014					
Operating revenues	\$509,803	\$533,187	\$512,017	\$618,004	\$2,173,011
Impairment of oil and gas properties <sup>(1)</sup>	—	—	—	771,037	771,037
Operating income (loss) <sup>(2)</sup>	194,487	210,653	190,341	(489,295)	106,186
Net income (loss) <sup>(2)</sup>	107,031	118,420	100,788	(221,771)	104,468
Basic earnings (loss) per share	0.26	0.28	0.24	(0.53)	0.25
Diluted earnings (loss) per share	0.26	0.28	0.24	(0.53)	0.25

(1) For discussion of impairment of oil and gas properties, refer to Note 3 of the Notes to the Consolidated Financial Statements.

(2) Operating income and net income include a \$19.9 million gain on the disposition of certain of proved and unproved oil and gas properties in east Texas in the fourth quarter of 2014.

#### ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### ITEM 9A. CONTROLS AND PROCEDURES

##### Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures and Changes in Internal Control over Financial Reporting

As of December 31, 2015, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934 (the "Exchange Act"). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective, in all material respects, with respect to the recording, processing, summarizing and reporting, within the time periods specified in the Commission's rules and forms, of information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act.

There were no changes in the Company's internal control over financial reporting that occurred during the fourth quarter that have materially affected, or are reasonably likely to materially effect, the Company's internal control over financial reporting.

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Management's Report on Internal Control over Financial Reporting

The management of Cabot Oil & Gas Corporation is responsible for establishing and maintaining adequate internal control over financial reporting. Cabot Oil & Gas Corporation's internal control over financial reporting is a process designed 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. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Cabot Oil & Gas Corporation's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2015. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control—Integrated Framework (2013). Based on this assessment management has concluded that, as of December 31, 2015, the Company's internal control over financial reporting is effective at a reasonable assurance level based on those criteria.

The effectiveness of Cabot Oil & Gas Corporation's internal control over financial reporting as of December 31, 2015, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

ITEM 9B. OTHER INFORMATION

None.

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**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by this Item is incorporated by reference to the Company's definitive Proxy Statement in connection with the 2016 annual stockholders' meeting. In addition, the information set forth under the caption "Business—Other Business Matters—Corporate Governance Matters" in Item 1 regarding our Code of Business Conduct is incorporated by reference in response to this Item.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this Item is incorporated by reference to the Company's definitive Proxy Statement in connection with the 2016 annual stockholders' meeting.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information required by this Item is incorporated by reference to the Company's definitive Proxy Statement in connection with the 2016 annual stockholders' meeting.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by this Item is incorporated by reference to the Company's definitive Proxy Statement in connection with the 2016 annual stockholders' meeting.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this Item is incorporated by reference to the Company's definitive Proxy Statement in connection with the 2016 annual stockholders' meeting.

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## PART IV

## ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

## A. INDEX

## 1. Consolidated Financial Statements

See Index on page 55.

## 2. Financial Statement Schedules

Financial statement schedules listed under SEC rules but not included in this report are omitted because they are not applicable or the required information is provided in the notes to our consolidated financial statements.

## 3. Exhibits

The following instruments are included as exhibits to this report. Those exhibits below incorporated by reference herein are indicated as such by the information supplied in the parenthetical thereafter. If no parenthetical appears after an exhibit, copies of the instrument have been included herewith. Our Commission file number is 1-10447.

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the Company (Form 8-K for January 21, 2010).
3.2	Certificate of Amendment of Restated Certificate of Incorporation, dated as of May 1, 2012 (Form 10-Q for the quarter ended June 30, 2012).
3.3	Certificate of Amendment of Restated Certificate of Incorporation, dated as of May 1, 2014 (Form 10-Q for the quarter ended June 30, 2014).
3.4	Amended and Restated Bylaws of Cabot Oil & Gas Corporation (Form 8-K dated March 12, 2015).
4.1	Form of Certificate of Common Stock of the Company (Registration Statement No. 33-32553).
4.2	Note Purchase Agreement dated as of July 26, 2001 among Cabot Oil & Gas Corporation and the Purchasers listed therein (Form 8-K for August 30, 2001). (a) Amendment No. 1 to Note Purchase Agreement, dated as of June 30, 2010 (Form 10-Q for the quarter ended June 30, 2010). (b) Amendment No. 2 to Note Purchase Agreement, dated as of September 28, 2010 (Form 10-Q for the quarter ended September 30, 2010). (c) Amendment No. 3 to Note Purchase Agreement, dated as of December 31, 2015 (Form 8-K for February 9, 2016).
4.3	Note Purchase Agreement dated as of July 16, 2008 among Cabot Oil & Gas Corporation and the Purchasers named therein (Form 8-K for July 16, 2008). (a) Amendment No. 1 to Note Purchase Agreement, dated as of June 30, 2010 (Form 10-Q for the quarter ended June 30, 2010). (b) Amendment No. 2 to Note Purchase Agreement, dated as of December 31, 2015 (Form 8-K for February 9, 2016).
4.4	Note Purchase Agreement dated as of December 1, 2008 among Cabot Oil & Gas Corporation and the Purchasers named therein (Form 10-K for 2008). (a) Amendment No. 1 to Note Purchase Agreement, dated as of June 30, 2010 (Form 10-Q for the quarter ended June 30, 2010). (b) Amendment No. 2 to Note Purchase Agreement, dated as of December 31, 2015 (Form 8-K for February 9, 2016).
4.5	Note Purchase Agreement dated as of December 30, 2010 among Cabot Oil & Gas Corporation and the Purchasers named therein (Form 10-K for 2010).



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	(a) Amendment No. 1 to Note Purchase Agreement, dated as of December 31, 2015 (Form 8-K for February 9, 2016).
4.6	Note Purchase Agreement dated as of September 18, 2014 among Cabot Oil & Gas Corporation and the Purchasers named therein (Form 8-K for September 24, 2014).
	(a) Amendment No. 1 to Note Purchase Agreement, dated as of December 31, 2015 (Form 8-K for February 9, 2016).
*10.1	Form of Change in Control Agreement between the Company and Certain Officers (Form 10-K for 2008).
	(a) Form of Change in Control Agreement between the Company and Certain Officers (Confirmation that Certain Benefits no Longer Apply) (Form 10-K for 2010).
*10.2	Form of Indemnity Agreement between the Company and Certain Officers (Form 10-K for 2012).
*10.3	Deferred Compensation Plan of the Company, as Amended and Restated, Effective January 1, 2011 (Form 10-Q for the quarter ended June 30, 2011).
*10.4	Employment Agreement between the Company and Dan O. Dinges dated August 29, 2001 (Form 10-K for 2001).
	(a) Amendment to Employment Agreement between the Company and Dan O. Dinges, effective December 31, 2008 (Form 10-K for 2008).
*10.5	2004 Incentive Plan (Form 10-Q for the quarter ended June 30, 2004).
	(a) First Amendment to the 2004 Incentive Plan effective February 23, 2007 (Form 10-Q for the quarter ended March 31, 2007).
	(b) Second Amendment to the 2004 Incentive Plan Amendment, effective as of December 31, 2008 (Form 10-K for 2008).
*10.6	2012 Form of Non-Employee Director Restricted Stock Unit Award Agreement (Form 10-K for 2012).
*10.7	Forms of Award Agreements for Executive Officers under 2004 Incentive Plan.
	(a) 2012 Form of Restricted Stock Award Agreement (Form 10-K for 2012).
	(b) 2012 Form of Stock Appreciation Rights Award Agreement (Form 10-K for 2012).
	(c) 2012 Form of Performance Share Award Agreement (Officers) (Form 10-K for 2012).
	(d) 2012 Form of Hybrid Performance Share Award Agreement (Form 10-K for 2012).
	(e) 2012 Form of Performance Share Award Agreement (Employees) (Form 10-K for 2012).
*10.8	2014 Incentive Plan (Form 10-Q for the quarter ended June 30, 2014).
	(a) 2014 Form of Non-Employee Director Restricted Unit Award Agreement (Form 10-Q for the quarter ended June 30, 2014).
	(b) 2015 Form of Restricted Stock Award Agreement (3 year graded) (Form 10-Q for the quarter ended March 31, 2015).
	(c) 2015 Form of Restricted Stock Award Agreement (3 year cliff) (Form 10-Q for the quarter ended March 31, 2015).
	(d) 2015 Form of Performance Share Award Agreement (Officers) (Form 10-Q for the quarter ended March 31, 2015).
	(e) 2015 Form of Hybrid Performance Share Award Agreement (Form 10-Q for the quarter ended March 31, 2015).
	(f) 2015 Form of Performance Share Award Agreement (Employees) (Form 10-Q for the quarter ended March 31, 2015).
10.9	Cabot Oil & Gas Corporation Mineral, Royalty and Overriding Royalty Interest Plan (Registration Statement No. 333-135365).
	(a) Form of Conveyance of Mineral and/or Royalty Interest (Registration Statement No. 333-135365).
	(b) Form of Conveyance of Overriding Royalty Interest (Registration Statement No. 333-135365).

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*10.10	Savings Investment Plan of the Company, as amended and restated effective January 1, 2009 (Form 10-K for 2009). (a) First Amendment to the Savings Investment Plan of the Company effective October 1, 2010 (Form 10-K for 2010).
*10.11	Nonemployee Director Deferred Compensation Plan effective December 21, 2012 (Form 10-K for 2012).
10.12	Amended and Restated Credit Agreement, dated as of September 22, 2010, among the Company, JPMorgan Chase Bank, N.A., as Administrative Agent, Banc of America Securities LLC, as Syndication Agent, Bank of Montreal, as Documentation Agent, and the Lenders party thereto (Form 10-Q for the quarter ended September 30, 2010).
10.13	First Amendment to Amended and Restated Credit Agreement, dated as of May 4, 2012, among the Company, JPMorgan Chase Bank, N.A., as Administrative Agent, Banc of America Securities as Syndication Agent, Bank of Montreal as Documentation Agent, and the Lenders party thereto (Form 10-Q for the quarter ended June 30, 2012).
10.14	Second Amendment to Amended and Restated Credit Agreement, dated as of July 18, 2012, among the Company, JPMorgan Chase Bank, N.A., as Administrative Agent, Banc of America Securities and Bank of Montreal as Co-Syndication Agents, BNP Paribas and Wells Fargo as Co-Documentation Agents, and the Lenders party thereto (Form 10-Q for the quarter ended September 30, 2012).
10.15	Third Amendment to Amended and Restated Credit Agreement, dated as of April 17, 2015 (Form 8-K dated April 23, 2015).
10.16	Fourth Amendment to Amended and Restated Credit Agreement, dated as of December 31, 2015 (Form 8-K dated February 9, 2016).
10.17	Maximum Credit Amount Increase and Additional Lender Agreement, among the Company, JPMorgan Chase Bank, N.A., Administrative Agent and Toronto Dominion (New York) LLC, Additional Lender, dated as of December 18, 2013 (Form 10-K for 2013).
21.1	Subsidiaries of Cabot Oil & Gas Corporation.
23.1	Consent of PricewaterhouseCoopers LLP.
23.2	Consent of Miller and Lents, Ltd.
31.1	302 Certification—Chairman, President and Chief Executive Officer.
31.2	302 Certification—Vice President and Chief Financial Officer.
32.1	906 Certification.
99.1	Miller and Lents, Ltd. Audit Letter.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.

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\*Compensatory plan, contract or arrangement.

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## SIGNATURES

Pursuant to the requirements of Section 13 and 15(d) 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, in the City of Houston, State of Texas, on the 22nd of February 2016.

CABOT OIL &amp; GAS CORPORATION

By: /s/ DAN O. DINGES

Dan O. Dinges

Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ DAN O. DINGES Dan O. Dinges	Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 22, 2016
/s/ SCOTT C. SCHROEDER Scott C. Schroeder	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 22, 2016
/s/ TODD M. ROEMER Todd M. Roemer	Controller (Principal Accounting Officer)	February 22, 2016
/s/ DOROTHY M. ABLES Dorothy M. Ables	Director	February 22, 2016
/s/ RHYS J. BEST Rhys J. Best	Director	February 22, 2016
/s/ ROBERT S. BOSWELL Robert S. Boswell	Director	February 22, 2016
/s/ ROBERT L. KEISER Robert L. Keiser	Director	February 22, 2016
/s/ ROBERT KELLEY Robert Kelley	Director	February 22, 2016
/s/ W. MATT RALLS W. Matt Ralls	Director	February 22, 2016