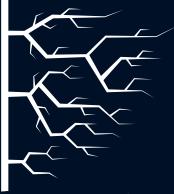
ROOTED IN THE PERMIAN







2018 10-KAND ANNUAL REPORT

PIONEER

NATURAL RESOURCES







Except for historical information contained herein, the statements in this document are forward-looking statements that are made pursuant to the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements and the business prospects of Pioneer Natural Resources Company are subject to a number of risks and uncertainties that may cause Pioneer's actual results in future periods to differ materially from the forward-looking statements. These risks and uncertainties are described in Items 1, 1A and 7 and on page 5 of Pioneer's Form 10-K included with this report. Pioneer undertakes no duty to publicly update these statements except as required by law.

Cautionary Note — The Securities and Exchange Commission (SEC) prohibits oil and gas companies, in their filings with the SEC, from disclosing estimates of oil or gas resources other than "reserves," as that term is defined by the SEC. In this document, Pioneer includes estimates of quantities of oil and gas using certain terms, such as "resource base," or other descriptions of volumes of reserves, which terms include quantities of oil and gas that may not meet the SEC's definitions of proved, probable and possible reserves, and which the SEC's guidelines strictly prohibit Pioneer from including in filings with the SEC. These estimates are by their nature more speculative than estimates of proved reserves and, accordingly, are subject to substantially greater risk of being recovered by Pioneer. You are urged to consider closely the disclosures in the Company's periodic filings with the SEC.



LETTER TO SHAREHOLDERS

Scott D. Sheffield | President and Chief Executive Officer

# **FELLOW SHAREHOLDERS**

I am pleased to report that 2018 was yet another solid year for Pioneer Natural Resources, with robust well performance, improvements in capital efficiency, and continued commitment to safety and stewardship.

As announced in February 2018, we are concentrating our attention and resources in West Texas. Our successful horizontal drilling program continues in the liquids-rich Midland Basin, where we have approximately 680,000 net acres.

Pioneer's recent sales of South Texas, Raton and West Panhandle assets, as well as our continued efforts to divest our Eagle Ford acreage, show we are committed to becoming a pure-play company rooted in the Permian. Additionally, divesting the assets of Pioneer Pumping Services and decommissioning our sand mine in Brady, Texas, will result in a significantly more capital-efficient program for 2019.

Even with the lower oil prices we witnessed during the fourth quarter, our high-margin wells generated strong rates of return. On average, our 2018 Permian Basin horizontal well cost structure allowed us to produce an incremental barrel of oil equivalent for approximately

\$23 over the life of the well.



- <sup>1</sup> Production normalized for shut-ins. Wells grouped by POP year.
- <sup>2</sup> Production normalized to a lateral length of ~10,000 feet.

In 2018, Pioneer delivered Permian oil production of 181 thousand barrels of oil per day (MBOPD) and Permian production of 283 thousand barrels of oil equivalent per day (MBOEPD). We also added Permian proved reserves totaling 304 million barrels of oil equivalent

"...we are committed to becoming a pure-play company rooted in the Permian."

# **DRIVING RESULTS**



# Focus on Returns

Low-cost, high-return Permian Basin wells underpin increasing corporate returns



# Capital Discipline

Capital spending within cash flow while maintaining strong production growth



# Return of Capital

Free cash flow generation leads to return of capital to shareholders



# Preserve Strong Balance Sheet

Low leverage ratios provide financial flexibility



# Highly Repeatable Program

Significant inventory of low-risk, highreturn wells supports organic growth

(MMBOE). Our total company annual production was 320 MBOEPD.

Establishing firm transportation arrangements to move Permian oil to the Gulf Coast has enabled Pioneer to sell at Brent-related pricing, which increased margins and returns in 2018. In the fourth quarter alone, we moved 175 MBOPD to the Gulf Coast for export and local refinery sales, increasing margins by more than \$9 per barrel.

Overall in 2018, Pioneer's per-barrel margin benefited from our Gulf Coast marketing strategy by more than \$6, where our realized price was \$64 due to Brent-related pricing versus a Midland market price of \$58 per barrel. These sales added an incremental \$173 million in cash flow in the fourth quarter and \$458 million in cash flow for the year.

Our strong balance sheet provides us with industry-leading financial flexibility. Pioneer had \$1.4 billion cash on hand — including liquid investments — at year-end 2018.

# **2019 OUTLOOK**

The petroleum industry won't be without its challenges in 2019. We saw commodity prices decline in the fourth quarter of 2018. Although oil prices have edged back up early in 2019, potential volatility in the global

economy and the risk of a market oversupply could pose real challenges, especially as the U.S. is projected to become a net energy exporter in the next five years.

Fortunately, Pioneer is poised to adjust its cost structure to better respond to dynamic commodity price scenarios and to consistently lower our breakeven oil price to deliver free cash flow for our shareholders. Recently doubling our dividend and announcing the stock buyback program demonstrate our commitment to enhancing shareholder value. We'll continue exploring these types of initiatives in the future while maintaining one of the best balance sheets in the industry.

# **INCREASING DIVIDEND**







Recent strides in capital discipline include changing our pressure pumping services model and re-sourcing our sand supply. We are beginning to reap the benefits of our water infrastructure investment and are continuing to achieve drilling and completions efficiency gains as well.

We have established a \$3.1 billion to \$3.4 billion capital budget for 2019, which is expected to deliver approximately 12 to 17 percent Permian production growth compared to 2018 levels.

# SAFETY, STEWARDSHIP AND INNOVATION

We are glad to report that Pioneer logged zero lost-time incidents in its upstream operations last year. Our Safely8760 program — named after the number of hours in a year — represents the commitment all employees and contractors make to be mindful of safety every hour of every day, both at work and at home.

Our second annual Sustainability Report, issued in August, illustrates the unwavering commitment we've made to environmental stewardship and to continuous improvement in preserving natural resources. We encourage our employees to do the right thing, and we are proud of the stewardship measures they take.

Pioneer continues to implement cutting-edge technology across the company, whether through improving rig production times, fine-tuning the accuracy of our exploration tools or championing machine learning, digitization and automation.



# **WATER STRATEGY**

Our comprehensive water strategy uses effluent water, brackish water and recycled produced water through our dedicated water management subsidiary, Pioneer Water Management LLC (PWM). Responsible for water sourcing, transportation and sales, PWM is focused on reducing the company's use of fresh water, mitigating disposal of produced water through water recycling efforts, reducing water acquisition and transportation costs, and minimizing water trucking on public roadways. PWM's water pipeline system moves hundreds of thousands of barrels of water per day.

Efforts to decrease our dependence on fresh water demonstrate Pioneer's commitment to the communities where we operate. We continue to reduce freshwater consumption by increasing the use of effluent water. Pioneer purchases non-potable effluent water from the city of Odessa, and began construction in 2018 of treatment facilities to enable a similar agreement with the city of Midland. Such agreements sustainably provide millions of gallons of usable water for Pioneer operations.



# PERMIAN STRATEGIC PARTNERSHIP

Pioneer's future depends on an area in West Texas that is faced with the challenges associated with the intense growth expected there for decades to come. So we helped form the Permian Strategic Partnership (PSP), a long-term initiative focused on improving the way of life in the region, with 18 additional oil and gas companies that share the same concerns.

The PSP went public last December with a \$100 million "seed money" pledge from the energy partners to begin work. A PSP-commissioned study identified five areas of greatest need: public education, housing, healthcare, roads and infrastructure, and workforce.

Progress will take time, but this organization can support the Permian Basin in smartly cultivating the tremendous growth and potential where Pioneer is rooted.



#### **OUR PEOPLE**

Attaining our 2019 objectives would be impossible without our outstanding employees. I have always said that Pioneer employees are our greatest asset.

In 2018, Pioneer became one of only two companies to place in *The Dallas Morning News*' "Top 100 Places to Work" listing each year since the program's inception 10 years ago — winning first place in the Best Benefits category — based on a survey of our employees. We continue to build a diverse and inclusive workforce of team players who focus on success, supporting them with employee-driven resource groups. Our employees also embrace our cultural value of giving back to the communities where they live and work by volunteering their personal time and resources. I appreciate the tremendous contributions that employees made to our solid performance in 2018.

Finally, I am pleased to sign this letter once again as Pioneer's President and CEO. Tim Dove, who spent 24 years at Pioneer and was a valued colleague, recently retired. All of us wish him well. And I welcome Ken Thompson, who formerly served as our Lead Director, to his new role as Chairman of the Board.

For me to have another opportunity to lead the best U.S. independent in our industry and reconnect with our talented employees is an honor, and I look forward to spending the next several years fully engaged at all levels of our company.

Pioneer always finds a way to adapt to change, innovate ahead of its peers and deliver results. We are positioned to deliver another successful year in 2019, and I thank you for your investment in our company.

Sincerely,

Scott D. Sheffield President and CEO

Scott P. Sheffel



# **BOARD OF DIRECTORS**



J. Kenneth Thompson <sup>2,4</sup> Chairman of the Board President and CEO Pacific Star Energy LLC



Edison C. Buchanan <sup>2,4</sup> Former Managing Director Credit Suisse First Boston



Andrew F. Cates <sup>2,4</sup>
Managing Member
Value Acquisition Fund



Phillip A. Gobe <sup>2,3</sup> Former President and Chief Operating Officer Energy Partners, Ltd.



Larry R. Grillot <sup>1,3</sup> Retired Dean, Mewbourne College of Earth and Energy The University of Oklahoma



**Stacy P. Methvin** <sup>2,3</sup> Retired Vice President Shell Oil Company



Royce W. Mitchell <sup>1,3</sup> Executive Consultant



Frank A. Risch <sup>1,4</sup> Retired Vice President and Treasurer Exxon Mobil Corporation



**Scott D. Sheffield** *President and Chief Executive Officer* 



Mona K. Sutphen <sup>2,3</sup> Senior Advisor The Vistria Group LLC



Phoebe A. Wood <sup>1,4</sup> Retired Vice Chairman and Chief Financial Officer Brown-Forman Corporation



**Michael D. Wortley** <sup>1,4</sup> Chief Legal Officer Reata Pharmaceuticals, Inc.

### **COMMITTEE MEMBERSHIP:**

- <sup>1</sup> Audit Committee
- <sup>2</sup> Compensation and Leadership Development Committee
- <sup>3</sup> Health, Safety and Environment Committee
- <sup>4</sup> Nominating and Corporate Governance Committee

# **OFFICERS**

Scott D. Sheffield President and Chief Executive Officer

# Mark S. Berg Executive Vice President Corporate/Vertically Integrated Operations

#### Chris J. Cheatwood Executive Vice President and Chief Technology Officer

Richard P. Dealy Executive Vice President and Chief Financial Officer

J. D. Hall Executive Vice President Permian Operations

# Kenneth H. Sheffield, Jr. Executive Vice President Operations/Engineering/Facilities

### John C. Distaso Senior Vice President Marketing

Robert C. Hagens Senior Vice President Land and Regulatory Affairs

### William F. Hannes Senior Vice President Special Projects

### Mark H. Kleinman Senior Vice President and General Counsel

#### Teresa A. Fairbrook Vice President and Chief Human Resources Officer

Paul McDonald Vice President Vertically Integrated Services

Margaret M. Montemayor Vice President and Chief Accounting Officer

Thaddeus J. Owens Vice President Communications and Government Relations

**Neal H. Shah** Vice President Investor Relations

#### Thomas D. Sheffield Vice President Health, Safety and Environment

Tom D. Spalding Vice President Geoscience

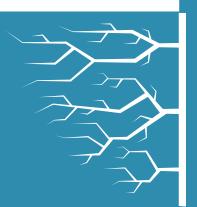
# Susan A. Spratlen Vice President Permian Affairs

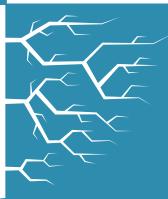
#### Stephanie D. Stewart Vice President and Chief Information Officer

Thomas J. Murphy Corporate Secretary

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2018 10-KAND ANNUAL REPORT

PIONEER

NATURAL RESOURCES



At a January 2018 all-employee meeting, leaders of each of five employee resource groups talk about the importance of diversity and inclusion in the workforce.



Workers at Pioneer's Remote Operations Hub in Midland keep tabs on well and equipment activity around the clock.



The Tech Bar allows employees with technology challenges to chat with an expert in person.



Pioneer employees volunteer at the April 2018 Bustin' for Badges annual sporting clays tournament benefiting the Midland and Ector County sheriff's offices and Midland and Odessa police departments.

# **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 10-K**

ANNUAL RE		3 OR 15(d) OF THE SECURITIES EX F 1934	CHANGE ACT
		nded December 31, 2018	
☐ TRANSITION		ON 13 OR 15(d) OF THE SECURITIE OF 1934	S EXCHANGE
	For the transition per Commission File N	iod from to	
	Pioneer Natural Re	esources Company	
	Delaware	75-2702753	
(State or	r other jurisdiction of ation or organization)	(I.R.S. Employer Identification No.)	
5205 N. O'Connor	Blvd., Suite 200, Irving, Texas	75039	
(Address of p	orincipal executive offices)	(Zip Code)	
	Registrant's telephone number, inc	cluding area code: (972) 444-9001	
	Securities registered pursuan	t to Section 12(b) of the Act:	
	tle of each class Stock, par value \$.01	Name of each exchange on which register New York Stock Exchange	red
	Securities registered pursuant to	Section 12(g) of the Act: None	
Indicate by check mark if the	9 -	defined in Rule 405 of the Securities Act. Yes	l No □
•		nt to Section 13 or Section 15(d) of the Act. Yes	
-			
	ths (or for such shorter period that the registrar	ed to be filed by Section 13 or 15(d) of the Securitie at was required to file such reports), and (2) has been	
required to be submitted and		r and posted on its corporate Web site, if any, eve T (§ 232.405 of this chapter) during the preceding  Yes ■ No □	
	best of registrant's knowledge, in definitive pro	5 of Regulation S-K (§229.405 of this chapter) is no oxy or information statements incorporated by reference	
		n accelerated filer, a non-accelerated filer or a sma ler reporting company" in Rule 12b-2 of the Excha	
Large accelerated filer	×	Accelerated filer	
Non-accelerated filer	☐ (Do not check if a smaller reporting c	company) Smaller reporting of	company
0 0 0 1	any, indicate by check mark if the registrant has bunting standards provided pursuant to Section	s elected not to use the extended transition period f 13(a) of the Exchange Act.	or complying with any
Indicate by check mark whet	ther the registrant is a shell company (as defined	d in Rule 12b-2 of the Act). Yes $\square$ No $\square$	
reference to the price at	t which the common equity was last sold	equity held by non-affiliates computed by , or the average bid and asked price of such ost recently completed second fiscal quarter	
Number of shares of Co	ommon Stock outstanding as of February	y 21, 2019	168,369,523
	DOCUMENTS INCODDOR	ATED DV DEFEDENCE.	

# **DOCUMENTS INCORPORATED BY REFERENCE:**

(1) Portions of the Definitive Proxy Statement for the Company's Annual Meeting of Shareholders to be held in May 2019 are incorporated into Part III of this report.

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# **Definitions of Certain Terms and Conventions Used Herein**

Within this Report, the following terms and conventions have specific meanings:

- "Bbl" means a standard barrel containing 42 United States gallons.
- "Bcf" means one billion cubic feet and is a measure of gas volume.
- "BOE" means a barrel of oil equivalent and is a standard convention used to express oil and gas volumes on a comparable oil equivalent basis. Gas equivalents are determined under the relative energy content method by using the ratio of six thousand cubic feet of gas to one Bbl of oil or natural gas liquid.
- "BOEPD" means BOE per day.
- "Brent" means Brent oil price, a major trading classification of sweet light oil that serves as a benchmark price for purchases of oil worldwide.
- "Btu" means British thermal unit, which is a measure of the amount of energy required to raise the temperature of one pound of water one degree Fahrenheit.
- "DD&A" means depletion, depreciation and amortization.
- "Field fuel" means gas consumed to operate field equipment (primarily compressors) prior to the gas being delivered to a sales point.
- "GAAP" means accounting principles generally accepted in the United States of America.
- "GHG" means green house gases.
- "*HH*" means Henry Hub, a distribution hub in Louisiana that serves as the delivery location for gas futures contracts on the NYMEX.
- "LIBOR" means London Interbank Offered Rate, which is a market rate of interest.
- "MBbl" means one thousand Bbls.
- "MBOE" means one thousand BOEs.
- "Mcf" means one thousand cubic feet and is a measure of gas volume.
- "MMBbl" means one million Bbls.
- "MMBOE" means one million BOEs.
- "MMBtu" means one million Btus.
- "MMcf" means one million cubic feet.
- "Mont Belvieu" means the daily average natural gas liquids components as priced in *OPIS* in the table "U.S. and Canada LP Gas Weekly Averages" at Mont Belvieu, Texas.
- "NGL" means natural gas liquid, which are the heavier hydrocarbon liquids that are separated from the gas stream; such liquids include ethane, propane, isobutane, normal butane and natural gasoline.
- "NYMEX" means the New York Mercantile Exchange.
- "NYSE" means the New York Stock Exchange.
- "Pioneer" or the "Company" means Pioneer Natural Resources Company and its subsidiaries.
- "Proved developed reserves" mean reserves that can be expected to be recovered 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.
- "Proved reserves" mean those quantities of oil and gas, which, by analysis of geosciences 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, operating methods, and government regulations 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 the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.
  - (i) The area of the reservoir considered as proved includes: (A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.
  - (ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons ("LKH") as seen in a well penetration unless geoscience, engineering or performance data and reliable technology establishes a lower contact with reasonable certainty.

- (iii) Where direct observation from well penetrations has defined a highest known oil ("HKO") elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering or performance data and reliable technology establish the higher contact with reasonable certainty.
- (iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when: (A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and (B) The project has been approved for development by all necessary parties and entities, including governmental entities.
- (v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average during the 12-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.
- "Proved undeveloped reserves" means reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.
  - (i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.
  - (ii) Undrilled locations can be classified as having proved 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.
  - (iii) Under no circumstances shall estimates for proved 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.
- "SEC" means the United States Securities and Exchange Commission.
- "Standardized Measure" means the after-tax present value of estimated future net cash flows of proved reserves, determined in accordance with the rules and regulations of the SEC, using prices and costs employed in the determination of proved reserves and a ten percent discount rate.
- "U.S." means United States.
- "WTI" means West Texas Intermediate, a light sweet blend of oil produced from fields in western Texas and is a grade of oil used as a benchmark in oil pricing.
- With respect to information on the working interest in wells, drilling locations and acreage, "net" wells, drilling locations and acres are determined by multiplying "gross" wells, drilling locations and acres by the Company's working interest in such wells, drilling locations or acres. Unless otherwise specified, wells, drilling locations and acreage statistics quoted herein represent gross wells, drilling locations or acres.
- All currency amounts are expressed in U.S. dollars.

#### CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Report") contains forward-looking statements that involve risks and uncertainties. When used in this document, the words "believes," "plans," "expects," "anticipates," "forecasts," "intends," "continue," "may," "will," "could," "should," "future," "potential," "estimate," or the negative of such terms and similar expressions as they relate to the Company are intended to identify forward-looking statements, which are generally not historical in nature. The forward-looking statements are based on the Company's current expectations, assumptions, estimates and projections about the Company and the industry in which the Company operates. Although the Company believes that the expectations and assumptions reflected in the forward-looking statements are reasonable as and when made, they involve risks and uncertainties that are difficult to predict and, in many cases, beyond the Company's control. In addition, the Company may be subject to currently unforeseen risks that may have a materially adverse effect on it. Accordingly, no assurances can be given that the actual events and results will not be materially different from the anticipated results described in the forward-looking statements. See "Item 1. Business — Competition, Markets and Regulations," "Item 1A. Risk Factors," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" for a description of various factors that could materially affect the ability of Pioneer to achieve the anticipated results described in the forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. The Company undertakes no duty to publicly update these statements except as required by law.

# PART I

# ITEM 1. BUSINESS

#### General

Pioneer is a large independent oil and gas exploration and production company that explores for, develops and produces oil, NGLs and gas within the United States, with operations primarily in the Permian Basin in West Texas. The Company is a Delaware corporation, and its common stock has been listed and traded on the NYSE under the ticker symbol "PXD" since its formation in 1997.

The Company's principal executive office is located at 5205 N. O'Connor Blvd., Suite 200, Irving, Texas 75039. The Company also maintains an office in Midland, Texas and field offices in its areas of operation.

At December 31, 2018, Pioneer had 3,177 employees, 1,006 of whom were employed in field and plant operations and 618 of whom were employed in vertical integration activities.

#### **Available Information**

Pioneer files or furnishes annual, quarterly and current reports, proxy statements and other documents with the SEC under the Securities Exchange Act of 1934 (the "Exchange Act"). The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers, including Pioneer, that file electronically with the SEC.

The Company makes available free of charge through its website (<a href="www.pxd.com">www.pxd.com</a>) its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) of the Exchange Act as soon as reasonably practicable after it electronically files such material with, or furnishes it to, the SEC. In addition to the reports filed or furnished with the SEC, Pioneer publicly discloses information from time to time in its press releases, investor presentations posted on its website and in publicly accessible conferences. Such information, including information posted on or connected to the Company's website, is not a part of, or incorporated by reference in, this Report or any other document the Company files with or furnishes to the SEC.

# Mission and Strategies

The Company's mission is to be America's leading independent energy company, focused on value, safety, the environment, technology and our greatest asset, our people. The Company's long-term growth strategy is centered around the following strategic objectives:

maintaining a strong balance sheet to ensure financial flexibility;

. . . .

- delivering economic production and reserve growth;
- enhancing drilling, completion and production activities by utilizing the Company's scale and technology advancements to reduce costs and improve efficiency;
- · developing and training employees and contractors to perform their jobs in a safe manner; and
- stewarding the environment through industry leading sustainable development efforts.

The Company's long-term strategy is primarily anchored by the Company's interests in the long-lived Spraberry/Wolfcamp oil field located in the Permian Basin in West Texas, which has an estimated remaining productive life in excess of 40 years. Underlying the Spraberry/Wolfcamp field is 93 percent of the Company's total proved oil and gas reserves as of December 31, 2018.

In February 2018, the Company announced its intention to divest its properties in the South Texas, Raton Basin and West Panhandle fields and focus its efforts and capital resources on its Permian Basin assets. In 2018, the Company completed the following divestitures:

1 4 \*

Field	Completion date
Sinor Nest (Lower Wilcox) oil field (South Texas)	December 2018
West Panhandle gas and liquids field (Texas Panhandle)	August 2018
Raton Basin gas field (southern Colorado)	July 2018
Western portion of Eagle Ford Shale gas and liquids field (South Texas)	April 2018

The Company continues to actively market its remaining South Texas assets (Eagle Ford Shale gas and liquids field and Edwards gas field). No assurance can be given that the remaining planned divestitures will be completed in accordance with the Company's plans or on terms and at prices acceptable to the Company.

# **Business Activities**

Pioneer's purpose is to competitively and profitably explore for, develop and produce oil and gas reserves. In so doing, the Company sells homogeneous oil, NGL and gas units that, except for geographic and relatively minor quality differences, cannot be significantly differentiated from units offered for sale by the Company's competitors. The Company's portfolio of resources and opportunities are primarily located in the Spraberry/Wolfcamp oil field, and provide long-lived, dependable production and lower-risk exploration and development opportunities.

Petroleum industry. Over the past several years, the oil price environment has been characterized by high volatility. During 2018, Brent oil prices rose to a high of \$86.29 per barrel in early October 2018, only to fall late in the fourth quarter to a low of \$50.47 per barrel due to concerns over a worldwide oversupply of oil, in large part resulting from dramatic increases in U.S. shale oil production. Additionally, concerns about the potential for slower growth in U.S. and global gross domestic products, which would likely be accompanied by lower oil demand, has contributed to the downward pressure. Recently, the Organization of Petroleum Exporting Countries ("OPEC") members and some nonmembers, including Russia, have renewed pledges to reduce planned production in an effort to draw down a global oversupply and to rebalance supply and demand. Geopolitical factors may also be price-supportive, with the United States having issued sanctions against Iran, although the impact of those sanctions has been muted by waivers. The Company expects ongoing oil price volatility as compliance with the output reduction agreements, changes in oil inventories, extensions to Iranian waivers and actual demand growth is reported.

The growth of unconventional shale drilling in the United States has substantially increased the supply of gas and NGLs, resulting in a significant decline in related prices as the supply of these products has grown. While the industry has invested in initiatives designed to increase takeaway capacity, such as the construction of liquefied natural gas ("LNG") and NGL export facilities, the supply of these products has increased at a faster pace than the overall United States and international demand for these commodities. NGL products and gas supplies are expected to continue to increase during 2019 and prices are expected to remain volatile.

Significant factors that are likely to affect 2019 commodity prices include: the effect of U.S. energy, monetary and trade policies; fiscal challenges facing the United States federal government; the pace of economic growth in the U.S. and throughout the world, including the potential for macro weakness; geopolitical and economic developments in the U.S. and globally; the extent to which members of OPEC and other oil exporting nations adhere to and agree to extend the agreed oil production cuts; the supply and demand fundamentals for NGLs in the United States and the pace at which export capacity grows; and overall North American gas supply and demand fundamentals, including incremental LNG export capacity additions. Because the global economic and political outlook and commodity price environment are uncertain, the Company endeavors to maintain a strong financial liquidity position to support its financial flexibility.

Pioneer enters into pipeline capacity commitments in order to secure available oil, NGL and gas transportation capacity from the Company's areas of production with the objective of transporting a portion of the Company's oil and gas sales to higher priced markets. Specifically, the Company has entered into purchase transactions with third parties and separate sale transactions with third parties to diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and to satisfy unused gas pipeline capacity commitments. These marketing activities provided incremental cash flow of \$458 million in 2018, compared to cash outlays of \$31 million and \$64 million in 2017 and 2016, respectively. Additionally the Company uses commodity derivative contracts to mitigate the effect of commodity price volatility on the Company's net cash provided by operating activities and its net asset value. The Company has entered into derivative contracts for only a small portion of its forecasted 2019 production; consequently, if commodity prices decline, the Company could realize lower prices for volumes not protected by the Company's derivative activities and could see a reduction in derivative contract prices available on additional volumes in the future. As a result, the Company's internal cash flows will be negatively impacted by a reduction in commodity prices or to the extent that sales prices do not cover the third-party purchase price and cost of transportation for that portion of volumes transported to other markets. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and Note 5 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Liquidity. The Company's primary needs for cash are for (i) capital expenditures, (ii) acquisitions of oil and gas properties, (iii) payments of contractual obligations, including debt maturities, (iv) dividends and share repurchases and (v) working capital obligations. Funding for these cash needs may be provided by any combination of the Company's primary sources of liquidity including: (i) cash and cash equivalents, (ii) net cash provided by operating activities, (iii) sales of short-term and long-term investments, (iv) proceeds from divestitures, (iv) unused borrowing capacity under its credit facility, (v) issuances of debt or equity securities and (vi) other sources, such as sales of nonstrategic assets. Although the Company expects that these sources of funding

will be adequate to fund its 2019 capital expenditures, dividend payments and provide adequate liquidity to fund other needs, including stock repurchases, no assurance can be given that such funding sources will be adequate to meet the Company's future needs.

**Production.** The Company focuses its efforts towards maximizing its average daily production of oil, NGLs and gas through development drilling, production enhancement activities and acquisitions of producing properties, while minimizing controllable costs associated with production activities. For the year ended December 31, 2018, the Company's production of 117 MMBOE, excluding field fuel usage, represented a 17 percent increase compared to production during 2017. See "Item 2. Properties — Selected Oil and Gas Information — Production, price and cost data" for additional information.

*Drilling activities.* The Company believes that its current property base provides a substantial inventory of prospects for future reserve, production and cash flow growth.

Development activities. The Company seeks to increase its proved oil and gas reserves, production and cash flow through development drilling and by conducting other production enhancement activities, such as well recompletions. The Company's proved reserves as of December 31, 2018 include proved undeveloped reserves and proved developed non-producing reserves of 55 MMBbls of oil, 24 MMBbls of NGL and 142 Bcf of gas. The timing of the development of these proved reserves will be dependent upon commodity prices, drilling and operating costs and the Company's expected operating cash flows and financial condition. During the three years ended December 31, 2018, the Company drilled 801 gross (701 net) exploration and development wells, with 98 percent of the wells (99 percent of net wells) being successfully completed as productive wells, at a total drilling cost (net to the Company's interest) of \$8.2 billion, including infrastructure capital.

Exploratory activities. The Company has devoted significant efforts and resources to hiring and developing a highly skilled geoscience, engineering and land staff as well as acquiring a significant portfolio of lower-risk exploration opportunities that are expected to be evaluated and tested over the next decade and beyond. Exploratory and extension drilling involve greater risks of dry holes or failure to find commercial quantities of hydrocarbons than development drilling or enhanced recovery activities.

Acquisition activities. The Company regularly seeks to acquire or trade for properties that complement its operations, provide exploration and development opportunities, increase the lateral length of future horizontal wells and potentially provide superior returns on investment. The Company periodically evaluates and pursues acquisition and acreage trade opportunities (including opportunities to acquire particular oil and gas assets or entities owning oil and gas assets and opportunities to engage in mergers, consolidations or other business combinations with such entities) and at any given time may be in various stages of evaluating such opportunities. Such stages may take the form of internal financial analyses, oil and gas reserve analyses, due diligence, the submission of indications of interest, preliminary negotiations, negotiations of letters of intent or negotiations of definitive agreements. The success of any acquisition or acreage trade is uncertain and depends on a number of factors, some of which are outside the Company's control.

During 2018, 2017 and 2016, the Company spent \$65 million, \$136 million and \$446 million, respectively, primarily to purchase undeveloped acreage for future exploitation and exploration activities in the Spraberry/Wolfcamp field of the Permian Basin. See Note 3 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Integrated Services.* The Company continues to utilize its integrated services to control well costs and operating costs in addition to supporting the execution of its drilling and production activities. The Company owns field service equipment that supports its drilling and production operations, including pulling units, fracture stimulation tanks, water transport trucks, hot oilers, blowout preventers, construction equipment and fishing tools.

The Company continues to construct a field-wide water distribution system to reduce the cost of water for drilling and completion activities and to secure adequate supplies of water to support the Company's long-term growth plan for the Spraberry/Wolfcamp field. During 2018, the Company expanded its mainline system, subsystems and frac ponds to efficiently deliver water to Pioneer's drilling locations. The Company is purchasing approximately 120 thousand barrels per day of effluent water from the City of Odessa and has signed an agreement with the City of Midland to upgrade the city's wastewater treatment plant in return for a dedicated long-term supply of water from the plant. Once the upgrade to the wastewater treatment plant is complete, the Company expects to receive approximately two billion barrels of low-cost, non-potable water over a 28-year contract period (up to 240 thousand barrels per day) to support its drilling and completion activities.

In November 2018, the Company announced plans to close its sand mine located in Brady, Texas and transition its proppant supply requirements to West Texas sand sources. During 2018, the Company recorded \$443 million of accelerated depreciation and \$7 million of employee-related charges associated with the pending shutdown.

Asset divestitures. The Company regularly reviews its asset base to identify nonstrategic assets, the disposition of which would increase capital resources available for other activities, create organizational and operational efficiencies and further the Company's objective of maintaining a strong balance sheet to ensure financial flexibility.

*Oil and gas activities.* In February 2018, the Company announced its intention to divest its properties in the South Texas, Raton Basin and West Panhandle fields and focus its efforts and capital resources on its Permian Basin assets.

In December 2018, the Company completed the sale of approximately 2,900 net acres in the Sinor Nest (Lower Wilcox) oil field in South Texas to an unaffiliated third party for cash proceeds of \$105 million, after normal closing adjustments. During 2018, the Company recorded a gain of \$54 million associated with the sale.

In August 2018, the Company completed the sale of its assets in the West Panhandle gas and liquids field to an unaffiliated third party for net cash proceeds of \$170 million, after normal closing adjustments. The assets sold represent all of the Company's interests in the field, including all of its producing wells and the associated infrastructure. During 2018, the Company recorded a gain of \$127 million and employee-related charges of \$7 million associated with sale.

In July 2018, the Company completed the sale of its gas field assets in the Raton Basin to an unaffiliated third party for net cash proceeds of \$54 million, after normal closing adjustments. The Company recorded a noncash impairment charge of \$77 million in June 2018 to reduce the carrying value of its Raton Basin assets to their estimated fair value less costs to sell as the assets were considered held for sale. During 2018, the Company recorded a gain of \$2 million associated with this divestiture. The Company also recorded divestiture-related charges of \$117 million, including \$111 million of deficiency charges related to certain firm transportation contracts retained by the Company and employee-related charges of \$6 million.

In April 2018, the Company completed the sale of approximately 10,200 net acres in the West Eagle Ford Shale gas and liquids field to an unaffiliated third party for net cash proceeds of \$100 million, after normal closing adjustments. During 2018, the Company recorded a gain of \$75 million associated with the sale.

In April 2017, the Company completed the sale of approximately 20,500 acres in the Martin County region of the Permian Basin, with net production of approximately 1,500 BOEPD, to an unaffiliated third party for net cash proceeds of \$264 million. The sale resulted in a gain of \$194 million.

The Company continues to actively market its remaining South Texas assets (Eagle Ford Shale gas and liquids field and Edwards gas field) and will continue to review its acreage in the Permian Basin and negotiate with other operators in the area to sell or trade nonstrategic properties to achieve operating efficiencies and to improve profitability. No assurance can be given that these divestitures or trades will be completed in accordance with the Company's plans or on terms and at prices acceptable to the Company. See Note 3 and Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Integrated services activities. In December 2018, the Company completed the sale of its pressure pumping assets to ProPetro Holding Corp. ("ProPetro") in exchange for total consideration of \$282 million, comprised of \$110 million of short-term receivables to be paid by ProPetro during the first quarter of 2019 and 16.6 million shares of ProPetro's common stock. The Company recorded a gain of \$30 million, employee-related charges of \$19 million, contract termination charges of \$13 million and other divestiture-related charges of \$6 million associated with the sale.

# Marketing of Production

*General.* Production from the Company's properties is marketed using methods that are consistent with industry practices. Sales prices for oil, NGL and gas production are negotiated based on factors normally considered in the industry, such as an index or spot price, price regulations, distance from the well to the pipeline, commodity quality and prevailing supply and demand conditions. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" for additional information.

Seasonal nature of business. Generally, but not always, the demand for gas decreases during the summer months and increases during the winter months. Seasonal anomalies such as mild winters or hot summers may impact general seasonal changes in demand.

Significant purchasers. During 2018, the Company's significant purchasers of oil, NGL and gas produced by the Company were Sunoco Logistics Partners L.P. (28 percent), Occidental Energy Marketing Inc. (17 percent) and Plains Marketing L.P. (15 percent). The loss of a significant purchaser or an inability to secure adequate pipeline, gas plant and NGL fractionation infrastructure for its Permian Basin production could have a material adverse effect on the Company's ability to produce and sell its oil, NGL and gas production.

During 2018, the Company's significant purchaser of oil and gas purchased from third parties was Occidental Energy Marketing Inc. (34 percent). No other purchaser of oil or gas purchased by the Company from third parties exceeded ten percent during 2018. The loss of a significant purchaser of purchased oil and gas would not be expected to have a material adverse effect on the Company's ability to sell commodities it purchases from third parties.

See Note 12 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

**Derivative risk management activities.** The Company primarily utilizes commodity swap contracts, collar contracts and collar contracts with short puts that are intended to (i) reduce the effect of price volatility on the commodities the Company produces and sells or consumes, (ii) support the Company's annual capital budgeting and expenditure plans and (iii) reduce commodity price risk associated with certain capital projects. From time to time, the Company also utilizes interest rate derivative contracts intended to reduce the effect of interest rate volatility on the Company's indebtedness.

The Company enters into pipeline capacity commitments in order to secure available oil, NGL and gas transportation capacity from the Company's areas of production. The Company enters into purchase transaction with third parties and separate sale transactions with third parties to diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and to satisfy unused gas pipeline capacity commitments.

See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and Note 5 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

# Competition, Markets and Regulations

Competition. The oil and gas industry is highly competitive in the exploration for and acquisition of reserves, the acquisition of oil and gas leases, marketing of oil, NGL and gas production and the obtaining of equipment and services and the hiring and retention of staff necessary for the identification, evaluation, operation and acquisition and development of such properties. The Company's competitors include a large number of companies, including major integrated oil and gas companies, other independent oil and gas companies, and individuals engaged in the exploration for and development of oil and gas properties. To a lesser extent, the Company also faces competition from companies that supply alternative sources of energy, such as wind and solar power.

Competitive advantage is gained in the oil and gas exploration and development industry by employing well-trained and experienced personnel who make prudent capital investment decisions based on management direction, embrace technological innovation and are focused on price and cost management. The Company has a team of dedicated employees who represent the professional disciplines and sciences that the Company believes are necessary to allow Pioneer to maximize the long-term profitability and net asset value inherent in its physical assets.

See "Item 1A. Risk Factors - The Company faces significant competition and some of its competitors have resources in excess of the Company's available resources" for additional information.

*Markets.* The Company's ability to produce and market oil, NGL and gas profitably depends on numerous factors beyond the Company's control. The effect of these factors cannot be accurately predicted or anticipated. Although the Company cannot predict the occurrence of events that may affect commodity prices or the degree to which commodity prices will be affected, the prices for any commodity that the Company produces will generally approximate current market prices in the geographic region of the production unless the Company effectively enhances margins through marketing and derivative arrangements.

Securities regulations. Enterprises that sell securities in public markets are subject to regulatory oversight by agencies such as the SEC and the NYSE. This regulatory oversight imposes on the Company many requirements, including the responsibility for establishing and maintaining disclosure controls and procedures and internal controls over financial reporting, and ensuring that the financial statements and other information included in submissions to the SEC do not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made in such submissions not misleading. Failure to comply with the rules and regulations of the SEC could subject the Company to litigation from public or private plaintiffs. Failure to comply with the rules of the NYSE could result in the de-listing of the Company's common stock, which would have an adverse effect on the market price and liquidity of the Company's common stock. Compliance with some of these rules and regulations is costly, and regulations are subject to change or reinterpretation.

Environmental and occupational health and safety matters. The Company's operations are subject to stringent federal, state and local laws and regulations governing worker health and safety, the discharge of materials into the environment and environmental protection. Numerous governmental entities, including the U.S. Environmental Protection Agency (the "EPA"), the U.S. Occupational Safety and Health Administration ("OSHA") and analogous state agencies, have the power to enforce

compliance with these laws and regulations and the permits issued under them, which may cause the Company to incur significant capital expenditures or take costly actions to achieve and maintain compliance. Failure to comply with these laws and regulations may result in the assessment of sanctions, including administrative, civil and criminal penalties, imposition of investigatory remedial or corrective action of obligations, the occurrence of delays or restrictions in permitting or the performance of projects and the issuance of orders enjoining the Company from conducting certain operations in a particular area. While the Company's environmental compliance costs have historically not had a material adverse effect on its results of operations, there can be no assurance that such costs will not be material in the future, or that new or more stringently applied laws and regulations will not materially increase the cost of doing business.

The following is a summary of the more significant environmental and worker health and safety laws, as amended from time to time, to which the Company's business operations are or may be subject and with which compliance or the failure to maintain compliance may have a material adverse effect on the Company's capital expenditures, results of operations or financial position.

Hazardous wastes and substances. The federal Resource Conservation and Recovery Act ("RCRA") and comparable state statutes regulate the generation, transportation, treatment, storage, disposal and cleanup of hazardous and non-hazardous wastes. Under the authority delegated by the EPA, the individual states administer some or all of the provisions of RCRA, sometimes in conjunction with their own, more stringent requirements. The Company generates some amounts of ordinary industrial wastes that may be regulated as RCRA hazardous wastes. RCRA currently excludes from the definition of hazardous waste drilling fluids, produced waters and certain other wastes associated with the exploration, development and production of oil or gas. These wastes are instead regulated under RCRA's less stringent non-hazardous waste provisions. There have been efforts from time to time to remove this exclusion, which removal could have a material adverse effect on the Company's results of operations and financial position, and it is possible that certain oil and gas exploration and production wastes now classified as non-hazardous could be classified as hazardous waste in the future.

The federal Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), also known as the Superfund law, and analogous state laws impose joint and several liability, without regard to fault or legality of conduct, on classes of persons who are considered to be responsible for the release of a "hazardous substance" into the environment. These persons include the current and past owner or operator of the site where the release occurred, and anyone who disposed or arranged for the disposal of a hazardous substance released at the site. Under CERCLA, such persons may be subject to joint and several 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 instances, third parties to act in response to threats to public health or the environment and to seek to recover from the responsible classes of persons the costs they incur. 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. The Company generates materials in the course of its operations that may be regulated as CERCLA hazardous substances.

See "Item 1A. Risk Factors - The nature of the Company's assets and production operations may impact the environment or cause environmental contamination, which could result in material liabilities to the Company" for additional information.

Water use, surface discharges and discharges into underground formations. The federal Water Pollution Control Act, also known as the Clean Water Act (the "CWA"), and analogous state laws impose restrictions and strict controls with respect to the discharge of pollutants, including spills and leaks of oil and hazardous substances, into waters of the United States and state waters. Spill prevention, control and countermeasure plan requirements imposed under the CWA require appropriate containment berms and similar structures to help prevent the contamination of navigable waters in the event of a petroleum hydrocarbon spill, rupture or leak. Additionally, the CWA and analogous state laws require individual permits or coverage under general permits for discharges of stormwater runoff from certain types of facilities. The CWA also prohibits the discharge of dredge and fill material into regulated waters, including wetlands, unless authorized by an appropriately issued permit. Federal and state regulatory agencies can impose administrative, civil and criminal penalties, as well as require remedial or mitigation measures, for noncompliance with discharge permits or other requirements of the CWA and analogous state laws.

The federal Oil Pollution Act ("OPA") sets minimum standards for prevention, containment and cleanup of oil spills into waters of the United States. Under OPA, responsible parties, including owners and operators of onshore facilities, such as exploration and production facilities, may be held strictly liable for oil spill cleanup costs and natural resource damages as well as a variety of public and private damages that may result from oil spills. OPA amends the CWA and thus noncompliance with OPA could result in civil and criminal penalties under the CWA.

The Company may dispose of produced water from oil and gas activities in underground wells, which are designed and permitted to place the water into non-productive geologic formations that are isolated from fresh water sources. The Underground Injection Control ("UIC") program established under the federal Safe Drinking Water Act ("SDWA") requires issuance of permits

from the EPA or an analogous state agency for the construction and operation of disposal wells. Additionally, the UIC program establishes minimum standards for disposal well operations and restricts the types and quantities of fluids that may be disposed. Because some states have become concerned that the disposal of produced water into underground formations could contribute to seismicity, they have adopted or are considering adopting additional regulations governing such disposal. Should future onerous regulations or bans relating to underground wells be placed in effect in areas where the Company has significant operations, there could be an adverse impact on the Company's ability to operate.

See "Item 1A. Risk Factors - The Company's operations are subject to stringent environmental, oil and gas-related and occupational safety and health laws and regulations that could cause it to delay, curtail or cease its operations or expose it to material costs and liabilities" and "Item 1A. Risk Factors - The Company's operations are substantially dependent upon the availability of water and its ability to dispose of produced water gathered from drilling and production activities. Restrictions on the Company's ability to obtain water or dispose of produced water may have a material adverse effect on its financial condition, results of operations and cash flows" for additional information.

Hydraulic fracturing. Hydraulic fracturing is an important and common practice to stimulate production of oil and gas from dense subsurface rock formations. The process involves the injection of water, sand and additives under pressure into targeted subsurface formations to fracture the surrounding rock and stimulate oil and gas production. The Company routinely conducts hydraulic fracturing in its drilling and completion programs. The process is typically regulated by state oil and gas commissions, but, in recent years, several federal, state and local agencies have asserted regulatory authority over certain aspects of the process. Additionally, from time to time, the U.S. Congress has considered legislation that would provide for federal regulation of hydraulic fracturing and disclosure of chemicals used in the fracturing process but, to date, no such federal legislation has been adopted. The Company participates in FracFocus, a national publicly accessible internet-based registry that provides the public access to Company-reported information on the additives it uses in the hydraulic fracturing process on wells the Company operates. In the event federal, state or local restrictions are adopted in areas where the Company is currently conducting operations, or in the future plans to conduct operations, the Company may incur additional costs to comply with such requirements that may be significant in nature, experience delays, curtailment or a cessation in the pursuit of exploration, development or production activities, and be limited or precluded in the drilling of wells or the volume that the Company is ultimately able to produce from its reserves.

See "Item 1A. Risk Factors - Laws and regulations regarding hydraulic fracturing, as well as governmental reviews of such activities, could result in increased costs and additional operating restrictions, delays or cancellations and have a material adverse effect on the Company's production" and "Item 1A. Risk Factors - The Company's sand mining operations and hydraulic fracturing may result in silica-related health issues and litigation that could have a material adverse effect on the Company" for additional information.

Air emissions. The federal Clean Air Act (the "CAA") and comparable state laws regulate emissions of various air pollutants through air emissions permitting programs and the imposition of other compliance requirements. Such laws and regulations could require a facility to obtain pre-approval for construction or modification projects expected to produce new air pollutant emissions or result in the increase of existing air pollutant emissions. Additionally, these legal requirements could impose stringent air permit conditions or utilize specific emission control technologies to limit emissions of certain air pollutants. Federal and state regulatory agencies can also impose administrative, civil and criminal penalties for noncompliance with air permits or other requirements of the CAA and associated state laws and regulations.

See "Item 1A. Risk Factors - The Company's operations are subject to stringent environmental, oil and gas-related and occupational safety and health laws and regulations that could cause it to delay, curtail or cease its operations or expose it to material costs and liabilities" for additional information.

Climate change. Climate change continues to attract considerable public, political and scientific attention. As a result, numerous proposals have been made, and are likely to continue to be made, at the international, national, regional and state levels of government to monitor and limit emissions of GHGs. These efforts have included consideration of cap-and-trade programs, carbon taxes, GHG reporting and tracking programs, and regulations that directly limit GHG emissions from certain sources. The adoption and implementation of any federal or state legislation or regulations that require reporting of GHGs or otherwise restrict emissions of GHGs from the Company's equipment and operations could require the Company to incur increased operating costs, such as costs to purchase and operate emissions control systems, acquire emissions allowances or comply with new regulatory or reporting requirements.

See "Item 1A. Risk Factors - Climate change legislation and regulatory initiatives restricting emissions of GHGs could result in increased operating costs and reduced demand for the oil, NGL and gas the Company produces, while the potential physical effects of climate change could disrupt the Company's production and cause it to incur significant costs" for additional information.

Endangered species. The federal Endangered Species Act (the "ESA") and analogous state laws regulate activities that could have an adverse effect on species listed as threatened or endangered under the ESA. Some of the Company's operations are conducted in areas where protected species or their habitats are known to exist. In these areas, the Company may be obligated to develop and implement plans to avoid potential adverse effects to protected species and their habitats, and the Company may be delayed, restricted or prohibited from conducting operations in certain locations or during certain seasons, such as breeding and nesting seasons, when the Company's operations could have an adverse effect on the species. It is also possible that a federal or state agency could order a complete halt to drilling activities in certain locations if it is determined that such activities may have a serious adverse effect on a protected species.

See "Item 1A. Risk Factors - Laws and regulations pertaining to protection of threatened and endangered species or to critical habitat, wetlands and natural resources could delay, restrict or prohibit the Company's operations and cause it to incur substantial costs that may have a material adverse effect on the Company's development and production of reserves" for additional information.

Activities on federal lands. Oil and gas exploration, development and production activities on federal lands are subject to the National Environmental Policy Act ("NEPA"). NEPA requires federal agencies, including the federal Bureau of Land Management (the "BLM"), to evaluate major agency actions having the potential to significantly impact the environment. In the course of such evaluations, an agency will prepare an Environmental Assessment that assesses the potential direct, indirect and cumulative impacts of a proposed project and, if necessary, will prepare a more detailed Environmental Impact Statement that may be made available for public review and comment. Currently, the Company has minimal exploration and production activities on federal lands. However, for those current activities, as well as for future or proposed exploration and development plans on federal lands, governmental permits or authorizations that are subject to the requirements of NEPA are required. This process has the potential to delay or limit, or increase the cost of, the development of some of the Company's oil and gas projects. Authorizations under NEPA are also subject to protest, appeal or litigation, any or all of which may delay or halt projects. Moreover, depending on the mitigation strategies recommended in the Environmental Assessments, the Company could incur added costs, which could be substantial.

Occupational health and safety. The Company's operations are subject to the requirements of the federal Occupational Safety and Health Act and comparable state statutes. These laws and the implementing regulations issued by OSHA strictly govern the protection of the health and safety of employees. The OSHA hazard communication standard, the EPA community right-to-know regulations under Title III of CERCLA and similar state statutes require that the Company organize or disclose information about hazardous materials used or produced in the Company's operations.

Additionally, the Company's sand mining operations are subject to mining safety regulation. The U.S. Mining Safety and Health Administration (the "MSHA") is the primary regulatory organization that regulates quarries, surface mines, underground mines and the industrial mineral processing facilities associated with and located at quarries and mines. The Company's sand mining operations are subject to the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, which imposes stringent health and safety standards on numerous aspects of mineral extraction and processing operations, including the training of personnel, operating procedures, operating equipment and other matters.

OSHA amended its legal requirements in 2016, publishing a final rule that established a more stringent permissible exposure to respirable crystalline silica and provides other provisions to protect employees. This final rule required compliance with most applicable requirements by various industry sectors, including the hydraulic fracturing sector, by June 2018. Respirable silica is a known health hazard for workers exposed over long periods. The MSHA has considered the adoption of similar rules, but thus far no such rulemaking has been issued. If any new rule were issued by the MSHA that significantly lowered the workplace exposure limit to respirable crystalline silica, the Company could experience significantly higher costs for sand and pressure pumping services.

See "Item 1A. Risk Factors - The Company's operations are subject to stringent environmental, oil and gas-related and occupational safety and health laws and regulations that could cause it to delay, curtail or cease its operations or expose it to material costs and liabilities" and "Item 1A. Risk Factors - The Company's sand mining operations and hydraulic fracturing may result in silica-related health issues and litigation that could have a material adverse effect on the Company" for additional information.

Other regulation of the oil and gas industry. The oil and gas industry is regulated by numerous federal, state and local authorities. Legislation affecting the oil and gas industry is under constant review for amendment or expansion, frequently increasing the regulatory burden. Also, numerous federal and state departments and agencies are authorized by statute to issue rules and regulations that are binding on the oil and gas industry and its individual members, some of which carry substantial penalties for failure to comply. Although the regulatory burden on the oil and gas industry may increase the Company's cost of doing business by increasing the cost of production, the Company believes that these burdens generally do not affect the Company any differently

or to any greater or lesser extent than they affect other companies in the industry with similar types, quantities and locations of production.

Development and production. Development and production operations are subject to various types of regulation at the federal, state and local levels. These types of regulation include requiring permits for the drilling of wells, the posting of bonds in connection with various types of activities and filing reports concerning operations. Most states, and some counties and municipalities, in which the Company operates also regulate one or more of the following:

- the location of wells;
- the method of drilling and casing wells;
- the method and ability to fracture stimulate wells;
- the surface use and restoration of properties upon which wells are drilled;
- the plugging and abandoning of wells; and
- notice to surface owners and other third parties.

State laws regulate the size and shape of drilling and spacing units or proration units governing the pooling of oil and gas properties. Some states allow forced pooling or integration of tracts to facilitate development, while other states rely on voluntary pooling of lands and leases. In some instances, forced pooling or unitization may be implemented by third parties and may reduce the Company's interest in the unitized properties. In addition, state conservation laws establish maximum rates of production from oil and gas wells, generally prohibit the venting or flaring of gas and impose requirements regarding production rates. These laws and regulations may limit the amount of oil and gas the Company can produce from the Company's wells or limit the number of wells or the locations that the Company can drill. Moreover, each state generally imposes a production or severance tax with respect to the production and sale of oil, NGL and gas within its jurisdiction. States do not regulate wellhead prices or engage in other similar direct regulation, but there can be no assurance that they will not do so in the future. The effect of such future regulations may limit the amounts of oil and gas that may be produced from the Company's wells, negatively affect the economics of production from these wells or limit the number of locations the Company can drill.

Regulation of transportation and sale of gas. The availability, terms and cost of transportation significantly affect sales of gas. Federal and state regulations govern the price and terms for access to gas pipeline transportation. Intrastate gas pipeline transportation activities are subject to various state laws and regulations, as well as orders of state regulatory bodies. The interstate transportation and sale of gas is subject to federal regulation, including regulation of the terms, conditions and rates for interstate transportation, storage and various other matters, primarily by the Federal Energy Regulatory Commission ("FERC"). FERC endeavors to make gas transportation more accessible to gas buyers and sellers on an open-access and non-discriminatory basis.

Pursuant to the Energy Policy Act of 2005 ("EPAct 2005") it is unlawful for any entity, such as the Company, to use any deceptive or manipulative device or contrivance in connection with the purchase or sale of gas or transportation services subject to regulation by FERC, in contravention of rules prescribed by FERC. The EPAct 2005 also gives FERC authority to impose civil penalties of up to \$1 million per day, subject to annual inflation adjustment, for each violation of the Natural Gas Act ("NGA"), the Natural Gas Policy Act of 1978 and related regulations.

Under FERC Order 704, which regulates annual gas transaction reporting requirements, any market participant, including a producer such as the Company, that engages in wholesale sales or purchases of gas that equal or exceed 2.2 million MMBtus of physical gas in the previous calendar year must annually report such sales and purchases to FERC on Form No. 552 by May 1 of the year following the calendar year when such sales and purchases occurred. Form No. 552 contains aggregate volumes of wholesale gas purchased or sold in the prior calendar year to the extent such transactions utilize, contribute to or may contribute to the formation of price indices. Order 704 is intended to increase the transparency of the wholesale gas markets and to assist FERC in monitoring those markets and in detecting market manipulation.

Intrastate gas pipeline transportation rates are subject to regulation by state regulatory commissions. The basis for intrastate gas pipeline regulation, and the degree of regulatory oversight and scrutiny given to intrastate gas pipeline rates, vary from state to state. Additional proposals and proceedings that might affect the gas industry are considered from time to time by the U.S. Congress, FERC, state legislatures, state regulatory bodies and the courts. The Company cannot predict when or if any such proposals might become effective or their effect, if any, on its operations. The Company believes that the regulation of intrastate gas pipeline transportation rates will not affect its operations in any way that is materially different from the effects on its similarly situated competitors.

See additional information in "Item 1A. Risk Factors - The Company may not be able to obtain access on commercially reasonable terms or otherwise to pipelines and storage facilities, gathering systems and other transportation, processing, fractionation, refining and export facilities to market its oil, NGL and gas production; the Company relies on a limited number of purchasers for a majority of its products" and "Item 1A. Risk Factors - The Company's transportation of gas, sales and purchases

of oil, NGL, gas or other energy commodities, and any derivative activities related to such energy commodities, expose the Company to potential regulatory risks."

Gas processing. The Company's gas processing operations are generally not subject to FERC or state regulation with respect to rates or terms and conditions of service.

See "Item 1A. Risk Factors - The Company's gas processing operations are subject to operational and regulatory risks, which could result in significant damages and the loss of revenue" for additional information.

Gas gathering. Section 1(b) of the NGA exempts gas gathering facilities from FERC jurisdiction. While the Company owns or operates some gas gathering facilities, the Company also depends on gathering facilities owned and operated by third parties to gather production from its properties, and therefore the Company is affected by the rates charged by these third parties for gathering services. To the extent that changes in federal or state regulation affect the rates charged for gathering services, the Company also may be affected by these changes. The Company does not anticipate that the Company would be affected any differently than similarly situated gas producers.

See "Item 1A. Risk Factors - The Company may not be able to obtain access on commercially reasonable terms or otherwise to pipelines and storage facilities, gathering systems and other transportation, processing, fractionation, refining and export facilities to market its oil, NGL and gas production; the Company relies on a limited number of purchasers for a majority of its products" for additional information.

Regulation of transportation and sale of oil and NGL. Intrastate liquids pipeline transportation rates, terms and conditions are subject to regulation by numerous federal, state and local authorities and, in a number of instances, the ability to transport and sell such products on interstate pipelines is dependent on pipelines that are also subject to FERC jurisdiction under the Interstate Commerce Act (the "ICA"). The Company does not believe these regulations affect it any differently than other producers.

The ICA requires that pipelines maintain a tariff on file with the FERC. The tariff sets forth the established rates as well as the rules and regulations governing the service. The ICA requires, among other things, that rates and terms and conditions of service on interstate common carrier pipelines be "just and reasonable." Such pipelines must also provide jurisdictional service in a manner that is not unduly discriminatory or unduly preferential. Shippers have the power to challenge new and existing rates and terms and conditions of service before the FERC.

Rates of interstate liquids pipelines are currently regulated by the FERC, primarily through an annual indexing methodology, under which pipelines increase or decrease their rates in accordance with an index adjustment specified by the FERC. For the five-year period beginning in July 2016, the FERC established an annual index adjustment equal to the change in the producer price index for finished goods plus 1.23 percent. This adjustment is subject to review every five years. Under the FERC's regulations, a liquids pipeline can request a rate increase that exceeds the rate obtained through application of the indexing methodology by using a cost-of-service approach, but only after the pipeline establishes that a substantial divergence exists between the actual costs experienced by the pipeline and the rates resulting from application of the indexing methodology. Increases in liquids transportation rates may result in lower revenue and cash flows for the Company.

In addition, due to common carrier regulatory obligations of liquids pipelines, capacity must be prorated among shippers in an equitable manner in the event there are nominations in excess of capacity by current shippers or capacity requests are received from a new shipper. Therefore, new shippers or increased volume by existing shippers may reduce the capacity available to the Company. Any prolonged interruption in the operation or curtailment of available capacity of the pipelines that the Company relies upon for liquids transportation could have a material adverse effect on its business, financial condition, results of operations and cash flows. However, the Company believes that access to liquids pipeline transportation services generally will be available to it to the same extent, if not better given the Company's firm transportation contracts, as to its similarly situated competitors.

In November 2009, the Federal Trade Commission (the "FTC") issued regulations pursuant to the Energy Independence and Security Act of 2007 intended to prohibit market manipulation in the petroleum industry. Violators of the regulations face civil penalties of up to \$1 million per violation per day, subject to annual inflation adjustment. The Commodity Futures Trading Commission (the "CFTC") has also issued anti-manipulation rules that subject violators to a civil penalty of up to the greater of \$1 million per violation, subject to annual inflation adjustment, or triple the monetary gain to the person for each violation.

See "Items 1A. Risk Factors - The Company's transportation of gas, sales and purchases of oil, NGL, gas or other energy commodities, and any derivative activities related to such energy commodities, expose the Company to potential regulatory risks."

*Energy commodity prices*. Sales prices of oil, condensate, NGL and gas are not currently regulated and sales are made at market prices. Although prices of these energy commodities are currently unregulated, the U.S. Congress historically has been

active in their regulation. The Company cannot predict whether new legislation to regulate oil and gas might actually be enacted by the U.S. Congress or the various state legislatures, and what effect, if any, the proposals might have on the Company's operations.

Transportation of hazardous materials. The federal Department of Transportation has adopted regulations requiring that certain entities transporting designated hazardous materials develop plans to address security risks related to the transportation of hazardous materials. The Company does not believe that these requirements will have an adverse effect on the Company or its operations. The Company cannot provide any assurance that the security plans required under these regulations would protect against all security risks and prevent an attack or other incident related to the Company's transportation of hazardous materials.

# ITEM 1A. RISK FACTORS

The nature of the business activities conducted by the Company subjects it to certain hazards and risks. The following is a summary of some of the material risks relating to the Company's business activities. Other risks are described in "Item 1. Business — Competition, Markets and Regulations," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 7A. Quantitative and Qualitative Disclosures About Market Risk." These risks are not the only risks facing the Company. The Company's business could also be affected by additional risks and uncertainties not currently known to the Company or that it currently deems to be immaterial. If any of these risks actually occurs, it could materially harm the Company's business, financial condition or results of operations or impair the Company's ability to implement business plans or complete development activities as scheduled. In that case, the market price of the Company's common stock could decline.

The prices of oil, NGL and gas are highly volatile and have declined significantly in recent years. A sustained decline in these commodity prices could materially and adversely affect the Company's business, financial condition and results of operations.

The Company's revenues, profitability, cash flow and future rate of growth are highly dependent on commodity prices. Commodity prices may fluctuate widely in response to relatively minor changes in the supply of and demand for oil, NGL and gas, market uncertainty and a variety of additional factors that are beyond the Company's control, such as:

- domestic and worldwide supply of and demand for oil, NGL and gas;
- worldwide oil, NGL and gas inventory levels, including at Cushing, Oklahoma, the benchmark location for WTI oil prices, and the U.S. Gulf Coast, where the majority of the U.S. refinery capacity exists;
- volatility and trading patterns in the commodity-futures markets;
- the capacity of U.S. and international refiners to utilize U.S. supplies of oil and condensate;
- weather conditions;
- overall domestic and global political and economic conditions;
- actions of OPEC, its members and other state-controlled oil companies relating to oil price and production controls;
- the price and quantity of oil, NGL and LNG imports to and exports from the U.S.;
- technological advances or social attitudes or policies affecting energy consumption and energy supply;
- domestic and foreign governmental regulations, including environmental regulations, climate change regulations and taxation:
- the effect of energy conservation efforts;
- stockholder activism or activities by non-governmental organizations to limit certain sources of capital for the energy sector or restrict the exploration, development and production of oil and gas;
- the proximity, capacity, cost and availability of pipelines and other transportation facilities; and
- the price, availability and acceptance of alternative fuels.

Commodity prices have historically been, and continue to be, extremely volatile. For example, the NYMEX oil prices in 2018 ranged from a high of \$76.41 to a low of \$42.53 per Bbl and the NYMEX gas prices in 2018 ranged from a high of \$4.84 to a low of \$2.55 per MMBtu. The Company expects this volatility to continue. A further or extended decline in commodity prices could materially and adversely affect the Company's future business, financial condition, results of operations, liquidity or ability to finance planned capital expenditures. The Company makes price assumptions that are used for planning purposes, and a significant portion of the Company's cash outlays, including rent, salaries and noncancelable capital commitments, are largely fixed in nature. Accordingly, if commodity prices are below the expectations on which these commitments were based, the Company's financial results are likely to be adversely and disproportionately affected because these cash outlays are not variable in the short term and cannot be quickly reduced to respond to unanticipated decreases in commodity prices.

Significant or extended price declines could also materially and adversely affect the amount of oil, NGL and gas that the Company can produce economically, which may result in the Company having to make significant downward adjustments to its estimated proved reserves. A reduction in production could also result in a shortfall in expected cash flows and require the Company to reduce capital spending or borrow funds to cover any such shortfall. Any of these factors could negatively affect the Company's ability to replace its production and its future rate of growth.

The Company could experience periods of higher costs if commodity prices rise. These increases could reduce the Company's profitability, cash flow and ability to complete development activities as planned.

Historically, the Company's capital and operating costs have risen during periods of increasing oil, NGL and gas prices. These cost increases result from a variety of factors beyond the Company's control, such as increases in the cost of electricity, steel and other raw materials that the Company and its vendors rely upon; increased demand for labor, services and materials as drilling activity increases; and increased production and ad valorem taxes. Decreased levels of drilling activity in the oil and gas industry have historically led to cost reductions for some drilling equipment, materials and supplies. However, such costs may rise faster than increases in the Company's revenue if commodity prices rise, thereby negatively impacting the Company's profitability, cash flow and ability to complete development activities as scheduled and on budget. This impact may be magnified to the extent that the Company's ability to participate in the commodity price increases is limited by its derivative risk management activities.

# Declining general economic, business or industry conditions could have a material adverse effect on the Company's results of operations.

The economies in the United States and certain countries in Europe and Asia have been growing, with resulting improvements in industrial demand and consumer confidence. However, other economies, such as those of certain South American nations, continue to face economic struggles or slowing economic growth. If these conditions worsen, combined with a decline in economic growth in other parts of the world, there could be a significant adverse effect on global financial markets and commodity prices. In addition, continued hostilities in the Middle East and the occurrence or threat of terrorist attacks in the United States or other countries could adversely affect the global economy. If the economic climate in the United States or abroad were to deteriorate, demand for petroleum products could diminish or stagnate, which could depress the prices at which the Company could sell its oil, NGLs and gas, affect the ability of the Company's vendors, suppliers and customers to continue operations and ultimately decrease the Company's cash flows and profitability.

The refining industry may be unable to absorb rising U.S. oil and condensate production; in such a case, the resulting surplus could depress prices and restrict the availability of markets, which could materially and adversely affect the Company's results of operations.

Absent an expansion of U.S. refining and export capacity, rising U.S. production of oil and condensates could result in a surplus of these products in the U.S., which would likely cause prices for these commodities to fall and markets to constrict. Although U.S. law was changed in 2015 to permit the export of oil, exports may not occur if demand is lacking in foreign markets or the price that can be obtained in foreign markets does not support associated export capacity expansions, transportation and other costs. In such circumstances, the rate of return on the Company's capital projects would decline, possibly to levels that would make execution of the Company's drilling plans uneconomical, and a lack of market for the Company's products could require that the Company shut in some portion of its production. If this were to occur, the Company's production and cash flow could decrease, or could increase less than forecasted, which could have a material adverse effect on the Company's cash flow and profitability.

# The Company faces significant competition and some of its competitors have resources in excess of the Company's available resources.

The oil and gas industry is highly competitive. The Company competes with a large number of companies, producers and operators in a number of areas such as:

- seeking to acquire oil and gas properties suitable for development or exploration;
- marketing oil, NGL and gas production; and
- seeking to acquire the equipment, services and expertise, including trained personnel, necessary to identify, evaluate, operate and develop its properties.

Some of the Company's competitors are larger and have substantially greater financial and other resources than the Company, and as such, the Company may be at a competitive disadvantage in the identification, acquisition and development of properties that complement the Company's operations. To a lesser extent, the Company also faces competition from companies that supply alternative sources of energy, such as wind or solar power.

The Company's operations involve many operational risks, some of which could result in unforeseen interruptions to the Company's operations and substantial losses to the Company for which the Company may not be adequately insured.

The Company's operations, including drilling and completion activities and water distribution, collection and disposal activities, are subject to all the risks incident to the oil and gas development and production business, including:

- blowouts, cratering, explosions and fires;
- adverse weather effects;
- environmental hazards, such as NGL and gas leaks, oil and produced water spills, pipeline and vessel ruptures, encountering naturally occurring radioactive materials ("NORM"), and unauthorized discharges of toxic chemicals, gases, brine, well stimulation and completion fluids or other pollutants onto the surface or into the subsurface environment;
- high costs, shortages or delivery delays of equipment, labor or other services or water and sand for hydraulic fracturing;
- facility or equipment malfunctions, failures or accidents;
- title problems;
- pipe or cement failures or casing collapses;
- uncontrollable flows of oil, gas or water;
- compliance with environmental and other governmental requirements;
- lost or damaged oilfield workover and service tools;
- surface access restrictions;
- unusual or unexpected geological formations or pressure or irregularities in formations;
- terrorism, vandalism and physical, electronic and cyber security breaches; and
- natural disasters.

The Company's overall exposure to operational risks may increase as its drilling activity expands and as it increases internally-provided well services, water distribution, water collection or disposal and other services. Any of these risks could result in substantial losses to the Company due to injury or loss of life, damage to or destruction of wells, production facilities or other property and natural resources, clean-up responsibilities, regulatory investigations and penalties and suspension of operations.

The Company may not be insured or is not fully insured against certain of the risks described above, either because such insurance is not available or because of the high premium costs and deductibles associated with obtaining such insurance. Additionally, the Company relies to a large extent on facilities owned and operated by third-parties, and damage to or destruction of those third-party facilities could adversely affect the ability of the Company to produce, transport and sell its hydrocarbons.

The Company's operations and drilling activity are concentrated in the Permian Basin of West Texas, an area of high industry activity, which may affect its ability to obtain the personnel, equipment, services, resources and facilities access needed to complete its development activities as planned or result in increased costs; such concentration also makes the Company vulnerable to risks associated with operating in a limited geographic area.

The Company's producing properties are geographically concentrated in the Permian Basin of West Texas. At December 31, 2018, 93 percent of the Company's total estimated proved reserves were attributable to properties located in this area. In addition, the Company's operations and drilling activity are concentrated in this area where industry activity is high. As a result, demand for personnel, equipment, power, services and resources has increased, as well as the costs for these items. Any delay or inability to secure the personnel, equipment, power, services and resources could result in oil, NGL and gas production volumes being below the Company's forecasted volumes. In addition, any such negative effect on production volumes, or significant increases in costs, could have a material adverse effect on the Company's results of operations, cash flow and profitability.

As a result of this concentration, the Company may be disproportionately exposed to the impact of delays or interruptions of operations or production in this area caused by external factors such as governmental regulation, state politics, market limitations, water or sand shortages or extreme weather related conditions.

# The Company's actual production could differ materially from its forecasts.

From time to time, the Company provides forecasts of expected quantities of future oil and gas production and other financial and operating results. These forecasts are based on a number of estimates and assumptions, including that none of the risks associated with the Company's oil and gas operations summarized in this "Item 1A. Risk Factors" occur. Production forecasts, specifically, are based on assumptions such as:

- expectations of production from existing wells and future drilling activity;
- the absence of facility or equipment malfunctions;
- the absence of adverse weather effects;

- expectations of commodity prices, which could experience significant volatility;
- · expected well costs; and
- the assumed effects of regulation by governmental agencies, which could make certain drilling activities or production uneconomical.

Should any of these assumptions prove inaccurate, or should the Company's development plans change, actual production could be materially and adversely affected.

# Exploration and development drilling involve substantial costs and risks and may not result in commercially productive reserves.

Drilling involves numerous risks, including the risk that no commercially productive oil or gas reservoirs will be encountered. The cost of drilling, completing and operating wells is often uncertain and drilling operations may be curtailed, delayed or canceled, or become costlier, as a result of a variety of factors, including:

- unexpected drilling conditions;
- unexpected pressure or irregularities in formations;
- equipment failures or accidents;
- construction delays;
- fracture stimulation accidents or failures;
- adverse weather conditions;
- restricted access to land for drilling or laying pipelines;
- title defects:
- lack of available gathering, transportation, processing, fractionation, storage, refining or export facilities;
- lack of available capacity on interconnecting transmission pipelines;
- access to, and the cost and availability of, the equipment, services, resources and personnel required to complete the Company's drilling, completion and operating activities; and
- delays imposed by or resulting from compliance with or changes in environmental and other governmental, regulatory or contractual requirements.

The Company's future drilling activities may not be successful and, if unsuccessful, the Company's proved reserves and production would decline, which could have an adverse effect on the Company's future results of operations and financial condition. While all drilling, whether developmental, extension or exploratory, involves these risks, exploratory and extension drilling involves greater risks of dry holes or failure to find commercial quantities of hydrocarbons. The Company expects that it will continue to experience exploration and abandonment expense in 2019.

# Part of the Company's strategy involves using some of the latest available horizontal drilling and completion techniques, which involve risks and uncertainties in their application.

The Company's operations involve utilizing some of the latest drilling and completion techniques as developed by it and its service providers. Risks that the Company faces while drilling horizontal wells include, but are not limited to, the following:

- landing the wellbore in the desired drilling zone;
- staying in the desired drilling zone while drilling horizontally through the formation;
- running casing the entire length of the wellbore; and
- being able to run tools and other equipment consistently through the horizontal wellbore.

Risks that the Company faces while completing wells include, but are not limited to, the following:

- the ability to fracture stimulate the planned number of stages;
- the ability to run tools the entire length of the wellbore during completion operations; and
- the ability to successfully clean out the wellbore after completion of the final fracture stimulation stage.

Drilling in emerging areas is more uncertain than drilling in areas that are more developed and have a longer history of established drilling operations. New discoveries and emerging formations have limited or no production history and, consequently, the Company is more limited in assessing future drilling results in these areas. If the Company's drilling results are worse than anticipated, the return on investment for a particular project may not be as attractive as anticipated and the Company may recognize noncash charges to reduce the carrying value of its unproved properties in those areas.

# Multi-well pad drilling may result in volatility in the Company's operating results.

The Company utilizes multi-well pad drilling where practicable, and wells drilled on a pad are not placed on production until all wells on the pad are drilled and completed. In addition, problems affecting a single well could adversely affect production

from all of the wells on the pad. As a result, multi-well pad drilling can cause delays in the scheduled commencement of production, or interruptions in ongoing production. These delays or interruptions may cause volatility in the Company's operating results. Further, any delay, reduction or curtailment of the Company's development and producing operations due to operational delays caused by multi-well pad drilling could result in the loss of acreage through lease expirations.

The Company's use of seismic data is subject to interpretation and may not accurately identify the presence of oil and gas, which could materially and adversely affect the results of its drilling operations.

Even when properly used and interpreted, seismic data and visualization techniques are only tools used to assist geoscientists in identifying subsurface structures and hydrocarbon indicators and do not enable the interpreter to know whether hydrocarbons are, in fact, present in those structures. As a result, the Company's drilling activities may not be successful or economic. In addition, the use of advanced technologies, such as 3-D seismic data, requires greater pre-drilling expenditures than traditional drilling strategies, and the Company could incur losses as a result of such expenditures.

The Company's expectations for future drilling activities will be realized over several years, making them susceptible to uncertainties that could materially alter the occurrence or timing of such activities.

The Company has identified drilling locations and prospects for future drilling opportunities, including development, exploratory and infill drilling activities. These drilling locations and prospects represent a significant part of the Company's future drilling plans. For example, the Company's proved reserves as of December 31, 2018 include proved undeveloped reserves and proved developed non-producing reserves of 55 MMBbls of oil, 24 MMBbls of NGL and 142 Bcf of gas. The Company's ability to drill and develop these locations depends on a number of factors, including the availability and cost of capital, regulatory approvals, negotiation of agreements with third parties, commodity prices, costs, access to and availability of equipment, services, resources and personnel, and drilling results. There can be no assurance that the Company will drill these locations or that the Company will be able to produce oil or gas reserves from these locations or any other potential drilling locations. Well results vary by formation and geographic area, and the Company's drilling activities are generally focused on remaining locations that are believed to offer the highest return. Changes in the laws or regulations on which the Company relies in planning and executing its drilling programs could materially and adversely impact the Company's ability to successfully complete those programs. For example, under current Texas laws and regulations, the Company may receive permits to drill, and may drill and complete, certain horizontal wells that traverse one or more units and/or leases; a change in those laws or regulations could materially and adversely impact the Company's ability to drill those wells. Because of these uncertainties, the Company cannot give any assurance as to the timing of these activities or that they will ultimately result in the realization of proved reserves or meet the Company's expectations for success. As such, the Company's actual drilling activities may materially differ from the Company's current expectations, which could have a material adverse effect on the Company's proved reserves, financial condition and results of operations.

The Company's operations are substantially dependent upon the availability of water and its ability to dispose of produced water gathered from drilling and production activities. Restrictions on the Company's ability to obtain water or dispose of produced water may have a material adverse effect on its financial condition, results of operations and cash flows.

Water is an essential component of the Company's drilling and hydraulic fracturing processes. Limitations or restrictions on the Company's ability to secure sufficient amounts of water (including limitations resulting from natural causes such as drought), could materially and adversely impact its operations. Severe drought conditions can result in local water districts taking steps to restrict the use of water in their jurisdiction for drilling and hydraulic fracturing in order to protect the local water supply. If the Company is unable to obtain water to use in its operations from local sources, it may need to be obtained from new sources and transported to drilling sites, resulting in increased costs, which could have a material adverse effect on its financial condition, results of operations and cash flows.

In addition, the Company must dispose of the fluids produced from oil and gas production operations, including produced water, which it does directly or through the use of third party vendors. The legal requirements related to the disposal of produced water into a non-producing geologic formation by means of underground injection wells are subject to change based on concerns of the public or governmental authorities regarding such disposal activities. One such concern arises from seismic events near underground disposal wells that are used for the disposal by injection of produced water resulting from oil and gas activities. In 2016, the United States Geological Survey identified Texas as being among the states with areas of increased rates of induced seismicity that could be attributed to fluid injection or oil and gas extraction. In response to concerns regarding induced seismicity, regulators in some states have imposed, or are considering imposing, additional requirements in the permitting of produced water disposal wells to assess any relationship between seismicity and the use of such wells. For example, in Texas, the Texas Railroad Commission has adopted rules governing the permitting or re-permitting of wells used to dispose of produced water and other fluids resulting from the production of oil and gas in order to address these seismic activity concerns within the state. Among other things, these rules require companies seeking permits for disposal wells to provide seismic activity data in permit applications,

provide for more frequent monitoring and reporting for certain wells and allow the state to modify, suspend or terminate permits on grounds that a disposal well is likely to be, or determined to be, causing seismic activity.

States may issue orders to temporarily shut down or to curtail the injection depth of existing wells in the vicinity of seismic events. Another consequence of seismic events may be lawsuits alleging that disposal well operations have caused damage to neighboring properties or otherwise violated state and federal rules regulating waste disposal. These developments could result in additional regulation and restrictions on the use of injection wells by the Company or by commercial disposal well vendors whom the Company may use from time to time to dispose of produced water. Increased regulation and attention given to induced seismicity could also lead to greater opposition, including litigation to limit or prohibit oil and gas activities utilizing injection wells for produced water disposal. Any one or more of these developments may result in the Company or its vendors having to limit disposal well volumes, disposal rates and pressures or locations, or require the Company or its vendors to shut down or curtail the injection of produced water into disposal wells, which events could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company's gas processing operations are subject to operational and regulatory risks, which could result in significant damages and the loss of revenue.

As of December 31, 2018, the Company owned interests in 11 gas processing plants, including the related gathering systems, and two treating facilities. The Company is the operator of the two treating facilities and none of the gas processing plants. Two of the gas processing facilities are under construction and one of the treating facilities is not currently being used. There are significant risks associated with the operation of gas processing plants and the associated gathering systems. Gas and NGLs are volatile and explosive and may include carcinogens. Damage to or improper operation of gas processing plants, gathering systems or treating facilities could result in an explosion or the discharge of toxic gases, which could result in significant damage claims in addition to interrupting a revenue source.

Moreover, while the Company's gas processing operations are generally not subject to FERC or state regulation with respect to rates or terms and conditions of service, there can be no assurance that such processing operations will continue to be unregulated in the future. Although the processing facilities may not be directly regulated, other laws and regulations may affect the availability of gas for processing, such as state regulation of production rates and maximum daily production allowables from gas wells, which could impact the Company's processing business. Such regulation could result in additional costs and reduced revenues.

The Company may not be able to obtain access on commercially reasonable terms or otherwise to pipelines and storage facilities, gathering systems and other transportation, processing, fractionation, refining and export facilities to market its oil, NGL and gas production; the Company relies on a limited number of purchasers for a majority of its products.

The marketing of oil, NGL and gas production depends in large part on the availability, proximity and capacity of pipelines and storage facilities, gathering systems and other transportation, processing, fractionation, refining and export facilities, as well as the existence of adequate markets. If there were insufficient capacity available on these systems, if these systems were unavailable to the Company or if access to these systems were to become commercially unreasonable, the price offered for the Company's production could be significantly depressed, or the Company could be forced to shut in some production or delay or discontinue drilling plans and commercial production following a discovery of hydrocarbons while it constructs its own facility or awaits the availability of third party facilities. The Company also relies (and expects to rely in the future) on facilities developed and owned by third parties in order to store, process, transport, fractionate and sell its oil, NGL and gas production. The Company's plans to develop and sell its oil and gas reserves could be materially and adversely affected by the inability or unwillingness of third parties to provide sufficient transportation, storage or processing, fractionation, refining or export facilities to the Company, especially in areas of planned expansion where such facilities do not currently exist.

For example, following Hurricane Harvey in 2017 and Hurricanes Gustav and Ike in 2008, certain Permian Basin gas processors were forced to shut down their plants due to the inability of certain Texas Gulf Coast NGL fractionators to operate. The Company was able to produce its oil wells and vent or flare the associated gas; however, there is no certainty the Company will be able to vent or flare gas in the future due to potential changes in regulations. The amount of oil and gas that can be produced is subject to limitations in certain circumstances, such as pipeline interruptions due to scheduled and unscheduled maintenance, excessive pressure, physical damage to the gathering, transportation, storage, processing, fractionation, refining or export facilities, or lack of capacity at such facilities. The Company has periodically experienced high line pressure at its tank batteries, which has occasionally led to the flaring of gas due to the inability of the gas gathering systems in the areas to support the increased gas production. The curtailments arising from these and similar circumstances may last from a few days to several months, and in many cases, the Company may be provided only limited, if any, notice as to when these circumstances will arise and their duration.

To the extent that the Company enters into transportation contracts with pipelines that are subject to FERC regulation, the Company is subject to FERC requirements related to use of such capacity. Any failure on the Company's part to comply with FERC's regulations and policies or with a FERC-related pipeline's tariff could result in the imposition of civil and criminal penalties.

A limited number of companies purchase a majority of the Company's oil, NGL and gas. The loss of a significant purchaser could have a material adverse effect on the Company's ability to sell its production.

A failure by purchasers of the Company's production to satisfy their obligations to the Company could require the Company to recognize a charge in earnings and have a material adverse effect on the Company's results of operation.

The Company relies on a limited number of purchasers to purchase a majority of its products. To the extent that purchasers of the Company's production rely on access to the credit or equity markets to fund their operations, there is a risk that those purchasers could default in their contractual obligations to the Company if such purchasers were unable to access the credit or equity markets for an extended period of time. If for any reason the Company were to determine that it was probable that some or all of the accounts receivable from any one or more of the purchasers of the Company's production were uncollectible, the Company would recognize a charge in the earnings of that period for the probable loss.

Laws and regulations regarding hydraulic fracturing, as well as governmental reviews of such activities, could result in increased costs and additional operating restrictions, delays or cancellations and have a material adverse effect on the Company's production.

Hydraulic fracturing is a common practice that is used to stimulate production of hydrocarbons from tight formations. The Company conducts hydraulic fracturing in the majority of its drilling and completion programs. The process involves the injection of water, sand or other proppants and additives under pressure into targeted subsurface formations to stimulate oil and gas production. The process is typically regulated by state oil and gas commissions or similar agencies, but in recent years, several federal agencies have conducted investigations or asserted regulatory authority over certain aspects of the process. For example, in 2016, the EPA released its final report on the potential impacts of hydraulic fracturing on drinking water resources, concluding that "water cycle" activities associated with hydraulic fracturing may impact drinking water resources under certain circumstances. Additionally, the EPA has asserted regulatory authority pursuant to the SDWA's UIC program over hydraulic fracturing activities involving the use of diesel and issued guidance in 2014 covering such activities. Moreover, in 2014, the EPA published an Advance Notice of Proposed Rulemaking to collect data on chemicals used in hydraulic fracturing under the Toxic Substances Control Act and, in 2016, published a final rule under the CWA prohibiting the discharge of wastewater from onshore unconventional oil and gas extraction facilities to publicly-owned wastewater treatment plants. Also, the BLM published a final rule in 2015 establishing new or more stringent standards for performing hydraulic fracturing on federal and American Indian lands, but the BLM rescinded the rule in December 2017. However, litigation was filed in federal court in January 2018 challenging the BLM's rescission of the 2015 rule and legal challenges remain pending.

From time to time, the U.S. Congress has considered adopting legislation intended to provide for federal regulation of hydraulic fracturing and to require disclosure of the additives used in the hydraulic-fracturing process. In addition, certain states, including Texas where the Company operates, have adopted, and other states are considering adopting, regulations that could impose new or more stringent permitting, disclosure, disposal and well-construction requirements on hydraulic-fracturing operations. States could elect to prohibit high volume hydraulic fracturing altogether, following the lead of New York. Also, local land use restrictions, such as city ordinances, may be adopted to restrict or prohibit drilling in general or hydraulic fracturing in particular. In Texas, legislation was adopted providing that the regulation of oil and gas operations in Texas is under the exclusive jurisdiction of the state and thus preempts local regulation of those operations. Nonetheless, municipalities and political subdivisions in Texas continue to have the right to enact "commercially reasonable" regulations for surface activities. In the event federal, state or local restrictions pertaining to hydraulic fracturing are adopted in areas where the Company is currently conducting operations, or in the future plans to conduct operations, the Company may incur additional costs to comply with such requirements, experience restrictions, delays or cancellations in the pursuit of exploration, development or production activities, and perhaps be limited or precluded in the drilling of wells or in the volume that the Company is ultimately able to produce from its reserves; one or more of which developments could have a material adverse effect on the Company.

The Company's operations are subject to stringent environmental, oil and gas-related and occupational safety and health laws and regulations that could cause it to delay, curtail or cease its operations or expose it to material costs and liabilities.

The Company's operations are subject to stringent federal, state and local laws and regulations governing, among other things, the drilling of wells, rates of production, the size and shape of drilling and spacing units or proration units, the transportation and sale of oil, NGL and gas, and the discharging of materials into the environment and environmental protection. In connection with its operations, the Company must obtain and maintain numerous environmental and oil and gas-related permits, approvals and certificates from various federal, state and local governmental authorities, and may incur substantial costs in doing so. The need to obtain permits has the potential to delay, curtail or cease the development of oil and gas projects. Over the next several years, the Company may be charged royalties on gas emissions or required to incur certain capital expenditures for air pollution control equipment or other air emissions-related issues. For example, in 2015, the EPA issued a final rule under the CAA lowering the National Ambient Air Quality Standard ("NAAQS") for ground-level ozone from 75 parts per billion to 70 parts per billion

under standards to provide protection of public health and welfare. In 2017 and 2018, the EPA issued area designations with respect to ground-level ozone as either "attainment/unclassifiable," "unclassifiable" or "non-attainment." Additionally, in November 2018, the EPA issued final requirements that apply to state, local and tribal air agencies for implementing the 2015 NAAQS for groundlevel ozone. State implementation of the revised NAAQS could, among other things, require installation of new emission controls on some of the Company's equipment, resulting in longer permitting timelines, and significantly increase the Company's capital expenditures and operating costs. In another example, in 2016, the EPA published a final rule on the criteria for aggregating multiple surface sites into a single source for air-quality permitting purposes that is applicable to the oil and gas industry. This rule could cause small surface sites and the equipment at those sites to be aggregated for air emissions permitting purposes; however, in November 2018, the EPA published a final action that reinterprets source aggregation in a manner that could lessen the likelihood that air projects are aggregated for permitting. In a third example, the EPA and U.S. Army Corps of Engineers (the "Corps") released a final rule in 2015 outlining federal jurisdictional reach under the CWA over waters of the U.S., including wetlands. Beginning in the first quarter of 2017, the EPA and the Corps agreed to reconsider the 2015 rule and, thereafter, the agencies have (i) published a proposed rule in July 2017 to rescind the 2015 rule and recodify the regulatory text that governed waters of the U.S. prior to promulgation of the 2015 rule, (ii) published a proposed rule in November 2017 and a final rule in February 2018 adding a February 6, 2020 applicable date to the 2015 rule, and (iii) announced a proposed rule on December 11, 2018, redefining the CWA's jurisdiction over waters of the U.S. for which the agencies will seek public comment. The 2015 and February 2018 final rules are being challenged by various factions in federal district court and implementation of the 2015 rule has been enjoined in 28 states pending resolution of the various federal district court challenges. As a result of these legal developments, future implementation of the 2015 rule or a revised rule is uncertain at this time. Future compliance with these legal requirements or with any new or amended environmental laws or regulations could, among other things, delay, restrict or prohibit the issuance of necessary permits, increase the Company's capital expenditures and operating expenses by, for example, requiring installation of new emission controls on some of the Company's equipment, any one or more of which developments could have a material adverse effect on the Company's business, financial condition and results of operations.

Additionally, the Company's operations are subject to a number of federal and state laws and regulations, including the federal Occupational Safety and Health Act and comparable state statutes, whose purpose is to protect the health and safety of employees. Among other things, the Occupational Safety and Health Act hazard communication standard, the EPA community right-to-know regulations under Title III of the federal Superfund Amendment and Reauthorization Act and comparable state statutes require that information be maintained concerning hazardous materials used or produced in the Company's operations and that this information be provided to employees, state and local government authorities and citizens.

There can be no assurance that existing or future regulations will not result in a delay, curtailment or cessation of production or processing activities, result in a material increase in the costs of production, development, exploration or processing operations or materially and adversely affect the Company's future operations and financial condition. Noncompliance with these laws and regulations may subject the Company to sanctions, including administrative, civil or criminal penalties, remedial cleanups or corrective actions, delays in permitting or performance of projects, natural resource damages and other liabilities. Such laws and regulations may also affect the costs of acquisitions. In addition, these laws and regulations are subject to amendment or replacement in the future with more stringent legal requirements. Further, any delay, reduction or curtailment of the Company's development and producing operations due to these laws and regulations could result in the loss of acreage through lease expiration.

# The nature of the Company's assets and production operations may impact the environment or cause environmental contamination, which could result in material liabilities to the Company.

The Company's assets and production operations may give rise to significant environmental costs and liabilities as a result of the Company's handling of petroleum hydrocarbons and wastes, because of air emissions and water discharges related to its operations, and due to past industry operations and waste disposal practices. The Company's oil and gas business involves the generation, handling, treatment, storage, transport and disposal of wastes, hazardous substances and petroleum hydrocarbons and is subject to environmental hazards, such as oil and produced water spills, NGL and gas leaks, pipeline and vessel ruptures and unauthorized discharges of such wastes, substances and hydrocarbons, that could expose the Company to substantial liability due to pollution and other environmental damage. For example, drilling fluids, produced waters and certain other wastes associated with the Company's exploration, development and production of oil or gas are currently excluded under RCRA from the definition of hazardous waste. These wastes are instead regulated under RCRA's less stringent non-hazardous waste provisions. There have been efforts from time to time to remove this exclusion, which removal could have a material adverse effect on the Company's results of operations and financial position. For example, in December 2016, the EPA entered into a settlement agreement with several non-governmental environmental groups in the U.S. District Court for the District of Columbia regarding the agency's alleged failure to timely assess its RCRA Subtitle D criteria regulations for oil and gas wastes. Under the terms of the settlement, the EPA is required to propose no later than March 15, 2019, a rulemaking for the revision of certain Subtitle D criteria regulations pertaining to oil and gas wastes or sign a determination that revision of the regulations is unnecessary. If the EPA proposes a rulemaking for revised oil and gas waste regulations, the settlement requires that the EPA take final action following notice and comment rulemaking no later than July 15, 2021.

The Company currently owns, leases or operates, and in the past has owned, leased or operated, properties that for many years have been used for oil and gas exploration and production activities, and petroleum hydrocarbons, hazardous substances and wastes may have been released on or under such properties, or on or under other locations, including off-site locations, where such substances have been taken for treatment or disposal. These wastes, substances and hydrocarbons may also be released during future operations. In addition, some of the Company's properties have been operated by predecessors or previous owners or operators whose treatment and disposal of hazardous substances, wastes or petroleum hydrocarbons were not under the Company's control. Joint and several strict liabilities may be incurred in connection with such releases of petroleum hydrocarbons, hazardous substances and wastes on, under or from the Company's properties. Private parties, including lessors of properties on which the Company operates and the owners or operators of properties adjacent to the Company's operations and facilities where the Company's petroleum hydrocarbons, hazardous substances or wastes are taken for reclamation or disposal, may also have the right to pursue legal actions to enforce compliance as well as seek damages for noncompliance with environmental laws and regulations or for personal injury or damage to property or natural resources. Such properties and the substances disposed or released on or under them may be subject to CERCLA, RCRA and analogous state laws, which could require the Company to remove previously disposed substances, wastes and petroleum hydrocarbons, remediate contaminated property or perform remedial plugging or pit closure operations to prevent future contamination, the costs of which could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company may not be able to recover some or any of these costs from sources of contractual indemnity or insurance, as pollution and similar environmental risks generally are not insurable or fully insurable, either because such insurance is not available or because of the high premium costs and deductibles associated with obtaining such insurance.

Climate change legislation and regulatory initiatives restricting emissions of GHGs could result in increased operating costs and reduced demand for the oil, NGLs and gas the Company produces, while the potential physical effects of climate change could disrupt the Company's production and cause it to incur significant costs in preparing for or responding to those effects.

Climate change continues to attract considerable public, political and scientific attention. As a result, numerous proposals have been made and are likely to continue to be made at the international, national, regional and state levels of government to monitor and limit emissions of GHGs. These efforts have included consideration of cap-and-trade programs, carbon taxes, GHG reporting and tracking programs, and regulations that directly limit GHG emissions from certain sources. In November 2018, the Trump Administration released the second volume of the fourth interagency National Climate Assessment that is issued pursuant to federal law. The current version outlines potentially severe climate-related impairments for the United States' environment, economy and public health, which are indicated to worsen over time unless significant measures are taken to, among other things, reduce GHG emissions. This assessment could serve as a basis for increasing governmental pursuit of policies to restrict GHG emissions.

In the U.S., no comprehensive climate change legislation has been implemented at the federal level to date. In the absence of federal GHG-limiting legislation, the EPA has determined that GHG emissions present a danger to public health and the environment and has adopted rules under authority of the CAA that, among other things, establish certain permits and construction reviews designed to allow operations while ensuring the prevention of significant deterioration in air quality by GHG emissions from large stationary sources that are already potential sources of significant pollutant emissions. The Company could become subject to these permitting requirements and be required to install "best available control technology" to limit emissions of GHGs from any new or significantly modified facilities that the Company may seek to construct or modify in the future. The EPA has also adopted rules requiring the reporting of GHG emissions on an annual basis from specified GHG emission sources in the United States, including certain oil and gas production facilities, which include certain of the Company's facilities. Federal agencies also have begun directly regulating emissions of methane, a GHG, from oil and gas operations. In 2016, the EPA published a final rule establishing New Source Performance Standards, known as Subpart OOOOa, that require certain new, modified or reconstructed facilities in the oil and gas sector to reduce certain methane gas and volatile organic compound emissions. These Subpart OOOOa standards expand previously issued New Source Performance Standards, published by the EPA in 2012 and known as Subpart OOOO, by using certain equipment-specific emissions control practices. However, in June 2017, the EPA published a proposed rule to stay certain portions of these Subpart OOOOa standards for two years and revisit the entirety of the 2016 standard, but the rule has not been finalized. Rather, in February 2018, the EPA finalized amendments to certain requirements of the 2016 final rule and, in September 2018, the agency proposed additional amendments that included rescission or revision of certain requirements such as fugitive emission monitoring frequency. Furthermore, in 2016, the BLM published a final rule to reduce methane emissions by regulating venting, flaring and leaking from oil and gas operations on public lands. However, in September 2018, the BLM published a final rule that rescinds most of the requirements in the 2016 final rule and codifies the BLM's prior approach to venting and flaring. The rescission of the requirements in the 2016 final rule is being challenged in federal court.

At the state level, some states are considering and other states have issued requirements for the performance of leak detection programs that identify and repair methane leaks at certain oil and gas sources. State rules may be more stringent than federal rules.

Compliance with the EPA's 2016 rule and the BLM's 2016 rule, to the extent either are in effect, or with any future federal or state methane regulations could, among other things, require installation of new emission controls on some of the Company's equipment and significantly increase the Company's capital expenditures and operating costs.

Internationally, in late 2015, the U.S. joined other countries in entering into a United Nations sponsored non-binding agreement in Paris, France for nations to limit their GHG emissions through individually determined emission reduction goals every five years beginning in 2020. In August 2017, the U.S. State Department informed the United Nations of the United States' intention to withdraw from this Paris agreement, which provides for a four-year exit process beginning when it took effect in November 2016.

The adoption and implementation of any federal or state legislation or regulations or international agreements that require reporting of GHGs or otherwise restrict emissions of GHGs from the Company's equipment and operations could require the Company to incur increased capital and operating costs, such as costs to purchase and operate emissions control systems, acquire emissions allowances or comply with new regulatory or reporting requirements, including the imposition of a carbon tax, any of which could have a material adverse effect on the Company's business, financial condition and results of operations. Moreover, such new legislation or regulatory programs as well as conservation plans and efforts undertaken in response to climate change could also materially and adversely affect demand for the oil, NGLs and gas the Company produces and lower the value of its reserves. Depending on the severity of any such limitations, the effect on the value of the Company's reserves could be material. Non-governmental activism directed at shifting funding away from companies with energy-related assets could result in limitations or restrictions on certain sources of funding for the energy sector. In addition, increasing attention to the risks of climate change has resulted in an increased possibility of lawsuits brought by public and private entities against oil and gas companies in connection with their GHG emissions. Should the Company be targeted by any such litigation, it may incur substantial costs, which, to the extent that societal pressures or political or other factors are involved, could be imposed without regard to the causation of or contribution to the asserted damage, or to other mitigating factors.

Finally, it should be noted that some scientists have concluded that increasing concentrations of GHGs in the Earth's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, floods, droughts and other extreme climatic events. If any such effects were to occur, they could have a material adverse effect on the Company's exploration and production operations.

Laws and regulations pertaining to protection of threatened and endangered species or to critical habitat, wetlands and natural resources could delay, restrict or prohibit the Company's operations and cause it to incur substantial costs that may have a material adverse effect on the Company's development and production of reserves.

The federal ESA and comparable state laws were established to protect endangered and threatened species. Under the ESA, if a species is listed as threatened or endangered, restrictions may be imposed on activities adversely affecting that species' habitat. Similar protections are offered to migratory birds under the Federal Migratory Bird Treaty Act. Oil and gas operations in the Company's operating areas may be adversely affected by seasonal or permanent restrictions imposed on drilling activities by the U.S. Fish and Wildlife Services (the "FWS") that are designed to protect various wildlife, which may materially restrict the Company's access to federal or private land use. Permanent restrictions imposed to protect endangered and threatened species could prohibit drilling in certain areas, impact suppliers of critical materials or services, or require the implementation of expensive mitigation measures. Additionally, federal statutes, including the CWA, the OPA and CERCLA, as well as comparable state laws, prohibit certain actions that adversely affect critical habitat, wetlands and natural resources. If harm to species or damages to wetlands, habitat or natural resources occur or may occur, government entities or, at times, private parties may act to prevent oil and gas exploration or development activities or seek damages for harm to species, habitat or natural resources resulting from drilling, construction or releases of petroleum hydrocarbons, wastes, hazardous substances or other regulated materials, and, in some cases, may seek criminal penalties.

Moreover, as a result of one or more settlements entered into by the FWS, the agency is required to make determinations on the potential listing of numerous species as endangered or threatened under the ESA. The designation of previously unprotected species as threatened or endangered in areas where the Company conducts operations could cause the Company to incur increased costs arising from species protection measures or could result in delays, restrictions or prohibitions on its development and production activities that could have a material adverse effect on the Company's ability to develop and produce reserves.

Future price declines could result in a reduction in the carrying value of the Company's proved oil and gas properties, which could materially and adversely affect the Company's results of operations.

Significant or extended price declines could result in the Company having to make downward adjustments to the carrying value of its proved oil and gas properties. The Company performs assessments of its oil and gas properties whenever events or circumstances indicate that the carrying values of those assets may not be recoverable. In order to perform these assessments, management uses various observable and unobservable inputs, including management's outlooks for (i) proved reserves and risk-

adjusted probable and possible reserves, (ii) commodity prices, (iii) production costs, (iv) capital expenditures and (v) production. To the extent such tests indicate a reduction of the estimated useful life or estimated future cash flows of the Company's oil and gas properties, the carrying value may not be recoverable and therefore an impairment charge would be required to reduce the carrying value of the proved properties to their fair value. For example, during 2018 and 2017 the Company recorded impairment charges of \$77 million and \$285 million, respectively, attributable to its Raton Basin field in southeast Colorado, and in 2016, the Company recorded an impairment charge of \$32 million attributable to its West Panhandle field assets in the panhandle region of Texas, primarily due to declines in commodity prices and downward adjustments to the economically recoverable reserves attributable to each asset. The Company may incur impairment charges in the future, which could materially affect the Company's results of operations in the period incurred. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations - Impairment of oil and gas properties and other long-lived assets" and Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

# A portion of the Company's total estimated proved reserves at December 31, 2018 were undeveloped, and those proved reserves may not ultimately be developed.

At December 31, 2018, approximately eight percent of the Company's total estimated proved reserves were undeveloped. Recovery of undeveloped proved reserves requires significant capital expenditures and successful drilling. The Company's reserve data assumes that the Company can and will make these expenditures and conduct these operations successfully, which assumptions may not prove to be correct. If the Company chooses not to spend the capital to develop these proved undeveloped reserves, or if the Company is not otherwise able to successfully develop these proved undeveloped reserves, the Company will be required to write-off these proved reserves. In addition, under the SEC's rules, because proved undeveloped reserves may be booked only if they relate to wells planned to be drilled within five years of the date of booking, the Company may be required to write-off any proved undeveloped reserves that are not developed within this five-year timeframe. As with all oil and gas leases, the Company's leases require the Company to drill wells that are commercially productive and to maintain the production in paying quantities, and if the Company is unsuccessful in drilling such wells and maintaining such production, the Company could lose its rights under such leases. The Company's future production levels and, therefore, its future cash flow and income are highly dependent on successfully developing its proved undeveloped leasehold acreage.

# Estimates of proved reserves and future net cash flows are not precise. The actual quantities and net cash flows of the Company's proved reserves may prove to be lower than estimated.

Numerous uncertainties exist in estimating quantities of proved reserves and future net cash flows therefrom. The estimates of proved reserves and related future net cash flows set forth in this Report are based on various assumptions, which may ultimately prove to be inaccurate.

Petroleum engineering is a subjective process of estimating underground accumulations of oil and gas that cannot be measured in an exact manner. Estimates of economically recoverable oil and gas reserves and estimates of future net cash flows depend upon a number of variable factors and assumptions, including the following:

- historical production from the area compared with production from other producing areas;
- the quality and quantity of available data;
- the interpretation of that data;
- the assumed effects of regulations by governmental agencies;
- assumptions concerning future commodity prices; and
- assumptions concerning future development costs, operating costs, severance, ad valorem and excise taxes, gathering, processing, transportation and fractionation costs and workover and remedial costs.

Because all proved reserve estimates are to some degree subjective, each of the following items may differ materially from those assumed in estimating proved reserves:

- the quantities of oil and gas that are ultimately recovered;
- the production costs incurred to recover the reserves;
- the amount and timing of future development expenditures; and
- future commodity prices.

Furthermore, different reserve engineers may make different estimates of proved reserves and cash flows based on the same available data. The Company's actual production, revenues and expenditures with respect to proved reserves will likely be different from estimates, and the differences may be material.

As required by the SEC, the estimated discounted future net cash flows from proved reserves are based on average prices preceding the date of the estimate and costs as of the date of the estimate, while actual future prices and costs may be materially higher or lower. Actual future net cash flows also will be affected by factors such as:

- the amount and timing of actual production;
- the level of future capital spending;
- increases or decreases in the supply of or demand for oil, NGL and gas; and
- changes in governmental regulations or taxation.

Standardized Measure is a reporting convention that provides a common basis for comparing oil and gas companies subject to the rules and regulations of the SEC. In general, it requires the use of commodity prices that are based upon a historical 12-month unweighted average, as well as operating and development costs being incurred at the end of the reporting period. Consequently, it may not reflect the prices ordinarily received or that will be received for future oil and gas production because of seasonal price fluctuations or other varying market conditions, nor may it reflect the actual costs that will be required to produce or develop the oil and gas properties. Accordingly, estimates included herein of future net cash flows may be materially different from the future net cash flows that are ultimately received. In addition, the ten percent discount factor, which is required by the SEC to be used in calculating discounted future net cash flows for reporting purposes, may not be the most appropriate discount factor based on interest rates in effect from time to time and risks associated with the Company or the oil and gas industry in general. Therefore, the estimates of discounted future net cash flows or Standardized Measure in this Report should not be construed as accurate estimates of the current market value of the Company's proved reserves.

# The Company periodically evaluates its unproved oil and gas properties to determine recoverability of its cost and could be required to recognize noncash charges in the earnings of future periods.

At December 31, 2018, the Company carried unproved oil and gas property costs of \$601 million. GAAP requires periodic evaluation of these costs on a project-by-project basis. These evaluations are affected by the results of exploration activities, commodity price outlooks, planned future sales or expiration of all or a portion of the leases and the contracts and permits appurtenant to such projects. If the quantity of potential reserves determined by such evaluations is not sufficient to fully recover the cost invested in each project, the Company will recognize noncash charges in the earnings of future periods.

# Because the Company's proved reserves and production decline continually over time, the Company will need to mitigate these declines through drilling and production enhancement initiatives and/or acquisitions.

Producing oil and gas reservoirs are characterized by declining production rates, which vary depending upon reservoir characteristics and other factors. Because the Company's proved reserves and production decline continually over time as those reserves are produced, the Company will need to mitigate these declines through drilling and production enhancement initiatives and/or acquisitions of additional recoverable reserves. There can be no assurance that the Company will be able to develop, exploit, find or acquire sufficient additional reserves to replace its current or future production.

# The Company may be unable to make attractive acquisitions and any acquisition it completes is subject to substantial risks that could materially and adversely affect its business.

Acquisitions of oil and gas properties, including acreage trades, have from time to time contributed to the Company's growth. Acquisition opportunities in the oil and gas industry are very competitive, which can increase the cost of, or cause the Company to refrain from, completing acquisitions. The success of any acquisition will depend on a number of factors and involves potential risks, including, among other things:

- the inability to estimate accurately the costs to develop the reserves, the recoverable volumes of reserves, rates of future production and future net cash flows attainable from the reserves;
- the assumption of unknown liabilities, including environmental liabilities, and losses or costs for which the Company is not indemnified or for which the indemnity the Company receives is inadequate;
- the validity of assumptions about costs, including synergies;
- the effect on the Company's liquidity or financial leverage of using available cash or debt to finance acquisitions;
- the diversion of management's attention from other business concerns; and
- an inability to hire, train or retain qualified personnel to manage and operate the Company's growing business and assets.

All of these factors affect whether an acquisition will ultimately generate cash flows sufficient to provide a suitable return on investment. Even though the Company performs a review of the properties it seeks to acquire that it believes is consistent with industry practices, such reviews are often limited in scope. As a result, among other risks, the Company's initial estimates of

reserves may be subject to revision following an acquisition, which may materially and adversely affect the desired benefits of the acquisition.

The Company's ability to complete dispositions of assets, or interests in assets, may be subject to factors beyond its control, and in certain cases the Company may be required to retain liabilities for certain matters.

From time to time, the Company sells an interest in a strategic asset for the purpose of assisting or accelerating the asset's development. In addition, the Company regularly reviews its property base for the purpose of identifying nonstrategic assets, the disposition of which would increase capital resources available for other activities and create organizational and operational efficiencies. Various factors could materially affect the ability of the Company to dispose of such interests or nonstrategic assets or complete announced dispositions, including the receipt of approvals of governmental agencies or third parties and the availability of purchasers willing to acquire the interests or purchase the nonstrategic assets on terms and at prices acceptable to the Company.

Sellers typically retain certain liabilities or indemnify buyers for certain pre-closing matters, such as matters of litigation, environmental contingencies, royalty obligations and income taxes. The magnitude of any such retained liability or indemnification obligation may be difficult to quantify at the time of the transaction and ultimately may be material. Also, as is typical in divestiture transactions, third parties may be unwilling to release the Company from guarantees or other credit support provided prior to the sale of the divested assets. As a result, after a divestiture, the Company may remain secondarily liable for the obligations guaranteed or supported to the extent that the buyer of the assets fails to perform these obligations.

The Company's transportation of gas, sales and purchases of oil, NGLs and gas or other energy commodities, and any derivative activities related to such energy commodities, expose the Company to potential regulatory risks.

The FERC, the FTC and the CFTC hold statutory authority to monitor certain segments of the physical and futures energy commodities markets relevant to the Company's business. These agencies have imposed broad regulations prohibiting fraud and manipulation of such markets. With regard to the Company's transportation of gas in interstate commerce, physical sales and purchases of oil, NGL, gas or other energy commodities, and any derivative activities related to these energy commodities, the Company is required to observe the market-related regulations enforced by these agencies, which hold substantial enforcement authority. Failures to comply with such regulations, as interpreted and enforced, could materially and adversely affect the Company's results of operations and financial condition.

The Company's derivative risk management activities could result in financial losses; the Company may not enter into derivative arrangements with respect to future volumes if prices are unattractive.

To mitigate the effect of commodity price volatility on the Company's net cash provided by operating activities and its net asset value, support the Company's annual capital budgeting and expenditure plans and reduce commodity price risk associated with certain capital projects, the Company's strategy is to enter into derivative arrangements covering a portion of its oil, NGL and gas production. These derivative arrangements are subject to mark-to-market accounting treatment, and the changes in fair market value of the contracts are reported in the Company's statements of operations each quarter, which may result in significant noncash gains or losses. These derivative contracts may also expose the Company to risk of financial loss in certain circumstances, including when:

- production is less than the contracted derivative volumes;
- the counterparty to the derivative contract defaults on its contract obligations;
- there is a change in the expected differential between the underlying price in the derivative contract and actual prices received;
- a sudden, unexpected event materially impacts oil and gas prices; or
- the derivative contracts limit the benefit the Company would otherwise receive from increases in commodity prices.

On the other hand, failure to protect against declines in commodity prices exposes the Company to reduced liquidity when prices decline. A sustained lower commodity price environment would result in lower realized prices for unprotected volumes and reduce the prices at which the Company could enter into derivative contracts on future volumes. This could make such transactions unattractive, and, as a result, some or all of the Company's production volumes forecasted for 2019 and beyond may not be protected by derivative arrangements. In addition, the Company's derivatives arrangements may not achieve their intended strategic purposes.

The failure by counterparties to the Company's derivative risk management activities to perform their obligations could have a material adverse effect on the Company's results of operations.

The use of derivative risk management transactions involves the risk that the counterparties will be unable to meet the financial terms of such transactions. The Company is unable to predict changes in a counterparty's creditworthiness or ability to perform. Even if the Company accurately predicts sudden changes, the Company's ability to negate the risk may be limited

depending upon market conditions and the contractual terms of the transactions. During periods of declining commodity prices, the Company's derivative receivable positions generally increase, which increases the Company's counterparty credit exposure. If any of the Company's counterparties were to default on its obligations under the Company's derivative arrangements, such a default could have a material adverse effect on the Company's results of operations, and could result in a larger percentage of the Company's future production being subject to commodity price changes and could increase the likelihood that the Company's derivative arrangements may not achieve their intended strategic purposes.

The enactment of derivatives legislation could have a material adverse effect on the Company's ability to use derivative instruments to reduce the effect of commodity price, interest rate and other risks associated with its business.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") enacted in July 2010, established federal oversight and regulation of the over-the-counter derivatives market and entities, such as the Company, that participate in that market. The Dodd-Frank Act requires the CFTC and the SEC to promulgate rules and regulations for its implementation. While many Dodd-Frank Act regulations are already in effect, the rulemaking and implementation process is ongoing, and the ultimate effect of the adopted rules and regulations and any future rules and regulations on the Company's business remain uncertain.

In one of the rulemaking proceedings still pending under the Dodd-Frank Act, the CFTC issued in December 2016, proposed rules imposing position limits for certain futures and options contracts in various commodities (including oil and gas) and for swaps that are their economic equivalents. Under the proposed rules on position limits, certain types of derivative transactions are exempt from these limits, provided that such derivative transactions satisfy the CFTC's requirements for certain enumerated "bona fide" derivative transactions. These rules may affect both the size of the positions that the Company may hold and the ability or willingness of counterparties to trade with the Company, potentially increasing the costs of transactions. Moreover, such changes could materially reduce the Company's access to derivative opportunities, which could adversely affect revenues or cash flow during periods of low commodity prices. As these new position limit rules are not yet final, the impact of those provisions on the Company is uncertain at this time.

The CFTC has designated certain interest rate swaps and credit default swaps for mandatory clearing and the associated rules also will require the Company, in connection with covered derivative activities, to comply with clearing and trade-execution requirements or take steps to qualify for an exemption to such requirements. Although the Company believes it qualifies for the end-user exception from the mandatory clearing requirements for swaps entered to mitigate its commercial risks, the application of the mandatory clearing and trade execution requirements to other market participants, such as swap dealers, may change the cost and availability of the swaps that the Company uses. If the Company's swaps do not qualify for the commercial end-user exception, or if the cost of entering into uncleared swaps becomes prohibitive, the Company may be required to clear such transactions. The ultimate effect of the proposed rules and any additional regulations on the Company's business is uncertain.

In addition, certain banking regulators and the CFTC have adopted final rules establishing minimum margin requirements for uncleared swaps. Although the Company expects to qualify for the end-user exception from margin requirements for swaps entered into to manage its commercial risks, the application of such requirements to other market participants, such as swap dealers, may change the cost and availability of the swaps that the Company uses. If any of the Company's swaps do not qualify for the commercial end-user exception, the posting of collateral could reduce its liquidity and cash available for capital expenditures and could reduce its ability to manage commodity price volatility and the volatility in its cash flows.

The full impact of the Dodd-Frank Act and related regulatory requirements upon the Company's business will not be known until the regulations are implemented and the market for derivatives contracts has adjusted. The Dodd-Frank Act and any new regulations could significantly increase the cost of derivative contracts, materially alter the terms of derivative contracts, reduce the availability of derivatives to protect against risks the Company encounters and reduce the Company's ability to monetize or restructure its existing derivative contracts. If the Company reduces its use of derivatives as a result of the Dodd-Frank Act and regulations, the Company's results of operations may become more volatile and its cash flows may be less predictable, which could materially and adversely affect the Company's ability to plan for and fund capital expenditures. Finally, the Dodd-Frank Act was intended, in part, to reduce the volatility of oil and gas prices, which some legislators attributed to speculative trading in derivatives and commodity instruments related to oil and gas. The Company's revenues could therefore be materially and adversely affected if a consequence of the Dodd-Frank Act and implementing regulations is to lower commodity prices. Any of these consequences could have a material adverse effect on the Company, its financial condition and its results of operations. In addition, the European Union and other non-U.S. jurisdictions are implementing regulations with respect to the derivatives market. To the extent the Company transacts with counterparties in foreign jurisdictions, it may become subject to such regulations. At this time, the impact of such regulations is not clear.

The future of the SEC and CFTC's rulemaking remains uncertain. Regulatory agendas that were released in late 2017 indicated that the SEC and CFTC plan to pursue fewer rulemaking items than in prior years. For example, the CFTC announced its intent to take action on an agency-wide internal review focused on simplifying and modernizing CFTC rules, regulations and

practices and focus on streamlining the implementation of existing regulations and practices. Although the SEC and the CFTC's agendas are less expansive than they have been in the past, wholesale deregulation of the markets will not necessarily be the outcome. For example, the CFTC plans to take a new look at passing rules on position limits for certain futures contracts, and the SEC intends to re-propose rules for "plain vanilla" exchange-traded funds and add amendments to the Volcker Rule. The Trump Administration has also indicated in public statements that the Dodd-Frank Act will be under scrutiny and that some of its provisions and the rules promulgated thereunder may be revised, repealed or amended. Any such changes, including their nature and impact, cannot yet be determined with any degree of certainty.

Moreover, regulation by the CFTC and banking regulators of the over-the-counter derivatives market and market participants could cause the Company's contract counterparties, which are generally financial institutions and other market participants, to curtail or cease their derivatives activities, which could materially and adversely affect the cost and availability of derivatives to the Company.

Finally, the European Union and other non-U.S. jurisdictions are implementing regulations with respect to the derivatives market. To the extent the Company transacts with counterparties in foreign jurisdictions or counterparties with other businesses that subject them to regulations in foreign jurisdictions, the Company may become subject to, or otherwise affected by, such regulations.

# The Company is a party to debt instruments, a credit facility and other financial commitments that may restrict its business and financing activities.

The Company is a borrower under fixed rate senior notes and maintains a credit facility that is currently undrawn. The terms of the Company's borrowings specify scheduled debt repayments and require the Company to comply with certain associated covenants and restrictions. The Company's ability to comply with the debt repayment terms, associated covenants and restrictions is dependent on, among other things, factors outside the Company's direct control, such as commodity prices and interest rates. In addition, from time to time, the Company enters into arrangements and transactions that can give rise to material off-balance sheet obligations, including firm purchase, transportation and fractionation commitments, gathering, processing and transportation commitments on uncertain volumes of future throughput, commitments to purchase minimum volumes of goods and services, operating lease agreements and drilling commitments. The Company's financial commitments could have important consequences to its business including, but not limited to, the following:

- the incurrence of charges associated with unused commitments if future events do not meet the Company's expectations at the time such commitments are entered into;
- increasing its vulnerability to adverse economic and industry conditions;
- limiting its flexibility to plan for, or react to, changes in its business and industry;
- · limiting its ability to fund future development activities or engage in future acquisitions; and
- placing it at a competitive disadvantage compared to competitors that have less debt and/or fewer financial commitments.

The Company's ability to obtain additional financing is also affected by the Company's debt credit ratings and competition for available debt financing. A ratings downgrade could materially and adversely impact the Company's ability to access debt markets, increase the borrowing cost under the Company's credit facility and the cost of future debt and potentially require the Company to post letters of credit or other forms of collateral for certain obligations.

See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Capital Commitments, Capital Resources and Liquidity" and Note 7 and Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

### The Company's ability to declare and pay dividends and repurchase shares is subject to certain considerations.

Dividends are authorized and determined by the Company's board of directors in its sole discretion, and the repurchase of shares pursuant to the Company's stock repurchase program are made from time to time based on management's discretion. Decisions regarding the payment of dividends and the repurchase of shares are subject to a number of considerations, including:

- cash available for distribution;
- the Company's results of operations and anticipated future results of operations;
- the Company's financial condition, especially in relation to the anticipated future capital needs;
- the level of cash reserves the Company may establish to fund future capital expenditures;
- the Company's stock price; and
- other factors the board of directors deems relevant.

The Company can provide no assurance that it will continue to pay dividends or authorize share repurchases at the current rate or at all. Any elimination of or downward revision in the Company's dividend payout or stock repurchase program could have a material adverse effect on the market price of the Company's common stock.

The Company's business could be materially and adversely affected by security threats, including cybersecurity threats, and other disruptions.

As an oil and gas producer, the Company faces various security threats, including cybersecurity threats to gain unauthorized access to, or control of, sensitive information or to render data or systems corrupted or unusable; threats to the security of the Company's facilities and infrastructure or third party facilities and infrastructure, such as processing plants and pipelines; and threats from terrorist acts. The potential for such security threats has subjected the Company's operations to increased risks that could have a material adverse effect on the Company's business. In particular, the Company's implementation of various procedures and controls to monitor and mitigate security threats and to increase security for the Company's information, facilities and infrastructure may result in increased capital and operating costs. Costs for insurance may also increase as a result of security threats, and some insurance coverage may become more difficult to obtain, if available at all. Moreover, there can be no assurance that such procedures and controls will be sufficient to prevent security breaches from occurring. If any of these security breaches were to occur, they could lead to losses of sensitive information, critical infrastructure or capabilities essential to the Company's operations and could have a material adverse effect on the Company's reputation, financial position, results of operations and cash flows.

Cybersecurity attacks in particular are becoming more sophisticated. The Company relies extensively on information technology systems, including internet sites, computer software, data hosting facilities and other hardware and platforms, some of which are hosted by third parties, to assist in conducting its business. The Company's technologies systems and networks, and those of its business associates may become the target of cybersecurity attacks, including without limitation denial-of-service attacks, malicious software, data privacy breaches by employees, insiders or others with authorized access, cyber or phishing-attacks, ransomeware, attempts to gain unauthorized access to data and systems, and other electronic security breaches that could lead to disruptions in critical systems and materially and adversely affect the Company in a variety of ways, including the following:

- unauthorized access to and release of seismic data, reserves information, strategic information or other sensitive or proprietary information, which could have a material adverse effect on the Company's ability to compete for oil and gas resources;
- data corruption, communication interruption, or other operational disruptions during drilling activities, which could result in the failure to reach the intended target or a drilling incident;
- data corruption or operational disruptions of production infrastructure, which could result in loss of production or accidental discharges;
- unauthorized access to and release of personal information of royalty owners, employees and vendors, which could expose the Company to allegations that it did not sufficiently protect that information;
- a cybersecurity attack on a vendor or service provider, which could result in supply chain disruptions and could delay or halt operations;
- a cybersecurity attack on third-party gathering, transportation, processing, fractionation, refining or export facilities, which could delay or prevent the Company from transporting and marketing its production, resulting in a loss of revenues;
- a cybersecurity attack on a communications network or power grid, which could cause operational disruptions resulting in the loss of revenues; and
- a cybersecurity attack on the Company's automated and surveillance systems, which could cause a loss in production and potential environmental hazards.

These events could damage the Company's reputation and lead to financial losses from remedial actions, loss of business or potential liability. Additionally, certain cyber incidents, such as surveillance, may remain undetected for an extended period of time.

As cyber threats continue to evolve, the Company may be required to expend significant additional resources to continue to modify or enhance its protective measures or to investigate and remediate any information security vulnerabilities. Additionally, the continuing and evolving threat of cybersecurity attacks has resulted in evolving legal and compliance matters, including increased regulatory focus on prevention, which could require the Company to expend significant additional resources to meet such requirements.

Provisions of the Company's charter documents and Delaware law may inhibit a takeover, which could limit the price investors might be willing to pay in the future for the Company's common stock.

Provisions in the Company's certificate of incorporation and bylaws may have the effect of delaying or preventing an acquisition of the Company or a merger in which the Company is not the surviving company and may otherwise prevent or slow

changes in the Company's board of directors and management. In addition, because the Company is incorporated in Delaware, it is governed by the provisions of Section 203 of the Delaware General Corporation Law. These provisions could discourage an acquisition of the Company or other change in control transactions and thereby negatively affect the price that investors might be willing to pay in the future for the Company's common stock.

The Company periodically evaluates its goodwill for impairment and could be required to recognize noncash charges in the earnings of future periods.

At December 31, 2018, the Company had a carrying value for goodwill of \$264 million. Goodwill is assessed for impairment annually during the third quarter and whenever facts or circumstances indicate that the carrying value of the Company's goodwill may be impaired, which may require an estimate of the fair values of the reporting unit's assets and liabilities. Those assessments may be affected by (i) positive or negative reserve adjustments, (ii) results of drilling activities, (iii) management's outlook for commodity prices and costs and expenses, (iv) changes in the Company's market capitalization, (v) changes in the Company's weighted average cost of capital and (vi) changes in income taxes. If the fair value of the reporting unit's net assets is not sufficient to fully support the goodwill balance in the future, the Company will reduce the carrying value of goodwill for the impaired value, with a corresponding noncash charge to earnings in the period in which goodwill is determined to be impaired.

The Company's sand mining operations are subject to operating risks that are often beyond the Company's control, and such risks may not be covered by insurance.

Ownership of industrial sand mining operations is subject to risks, many of which are beyond the Company's control. These risks include:

- unusual or unexpected geological formations or pressures;
- cave-ins, pit wall failures or rock falls;
- unanticipated ground, grade or water conditions;
- inclement or hazardous weather conditions, including flooding, and the physical impacts of climate change;
- environmental hazards, such as unauthorized spills, releases and discharges of wastes, vessel ruptures and emission of unpermitted levels of pollutants;
- changes in laws and regulations;
- inability to acquire or maintain necessary permits or mining or water rights;
- restrictions on blasting operations;
- inability to obtain necessary production equipment or replacement parts;
- reduction in the amount of water available for processing;
- technical difficulties or failures;
- labor disputes;
- late delivery of supplies;
- fires, explosions or other accidents; and
- facility interruptions or shutdowns in response to environmental regulatory actions.

Any of these risks could result in damage to, or destruction of, the Company's mining properties or production facilities, personal injury, environmental damage, delays in mining or processing, losses or possible legal liability. Not all of these risks are insurable, and the Company's insurance coverage contains limits, deductibles, exclusions and endorsements. The Company's insurance coverage may not be sufficient to meet its needs in the event of loss and any such loss may have an adverse effect on the Company.

The Company's sand mining operations are subject to extensive environmental and occupational health and safety regulations that impose significant costs and potential liabilities.

The Company's sand mining operations are subject to a variety of federal, state and local environmental requirements affecting the mining and mineral processing industry, including, among others, those relating to:

- employee health and safety;
- permitting and licensing;
- air emissions and water discharges, GHG emissions, water pollution, waste management and disposal, remediation of soil and groundwater contamination;
- land use restrictions;
- · reclamation and restoration of properties; and
- wastes, hazardous substances and other regulated materials and natural resources.

Sand mining operations require numerous governmental, mining and other permits and water rights and approvals authorizing operations at each sand mining facility, and are subject to extensive regulation on matters such as permitting and licensing requirements, reclamation and restoration of mining properties after mining is completed, and the effects that mining have on groundwater quality and availability. Obtaining or renewing required permits or approvals may be delayed or prevented due to opposition by neighboring property owners, members of the public or other third parties and other factors beyond the Company's control. Moreover, issuance of any permits, permit renewals or other approvals by governmental agencies may be conditioned on new or modified requirements or procedures with respect to mining that may be costly or time-consuming to implement. A decision by a governmental agency or other third party to deny or delay issuing a new or renewed permit or approval, or to revoke or substantially modify an existing permit or approval, could have an adverse effect on the Company's sand mining operations at the affected facility.

Some environmental laws impose substantial penalties for noncompliance, and others, such as the CERCLA, impose strict, retroactive and joint and several liability for the remediation of releases of hazardous substances. Failure to properly handle, transport, store or dispose of wastes, hazardous substances and other regulated materials or otherwise conduct the Company's sand mining operations in compliance with environmental and occupational health and safety laws could expose the Company to liability for governmental penalties, cleanup costs and civil or criminal liability associated with releases of such materials into the environment, damages to property or natural resources and other damages, and exposure of workers or other persons to petroleum hydrocarbons, wastes or hazardous substances, as well as potentially impair the Company's ability to conduct its sand mining operations. The Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, which imposes stringent health and safety standards on numerous aspects of mineral extraction and processing operations, including the training of personnel, operating procedures, operating equipment and other matters.

Furthermore, laws and regulations are subject to amendment, replacement or re-interpretation by more stringent and comprehensive legal requirements. While the Company's environmental compliance costs under existing laws and regulations with respect to its sand mining operations have not historically had a material adverse effect on its results of operations, there can be no assurance that such costs will not be material in the future. Future compliance costs also may be incurred by the Company in connection increased governmental standards or permissible exposure limits for worker health and safety that are imposed in the future for added protection of workers from exposure to pollutants including crystalline silica dust. Moreover, such future environmental and occupational health and safety compliance with existing, new or amended laws and regulations could restrict the Company's ability to expand its facilities or extract mineral deposits or could require the Company to acquire costly equipment or to incur other significant expenses in connection with its sand mining operations or reclamation thereof, which restrictions, costs or expenses could have an adverse effect on the Company's sand mining operations.

Any failure by the Company to comply with applicable laws and regulations in connection with its sand mining operations may cause governmental authorities to take actions that could adversely affect the Company, including:

- issuance of administrative, civil and criminal penalties;
- denial, modification or revocation of permits or other authorizations;
- imposition of injunctive obligations or other limitations on the Company's operations, including interruptions or cessation of operations;
- obligations to install new or improved controls or provide additional personal protective equipment to mitigate exposure to pollutants such as crystalline silica dust; and
- requirements to perform site investigatory, remedial or other corrective actions.

# The Company's sand mining operations and hydraulic fracturing may result in silica-related health issues and litigation that could have a material adverse effect on the Company.

The inhalation of respirable crystalline silica dust is associated with the lung disease silicosis. There is evidence of an association between crystalline silica exposure or silicosis and lung cancer and a possible association with other diseases, including immune system disorders, such as scleroderma. These health risks have been, and may continue to be, a significant issue confronting the commercial sand industry. The actual or perceived health risks of mining, processing and handling sand could materially and adversely affect the Company through the threat of product liability or personal injury lawsuits, recently adopted OSHA silica regulations and increased scrutiny by federal, state and local regulatory authorities.

Pioneer Sands LLC ("Pioneer Sands"), the Company's wholly-owned sand mining subsidiary, is named as a defendant, usually among many defendants, in numerous products liability lawsuits brought by or on behalf of current or former employees of Pioneer Sands or its commercial customers alleging damages caused by silica exposure. As of December 31, 2018, Pioneer Sands was the subject of silica exposure claims from 16 plaintiffs. Almost all of the claims pending against Pioneer Sands arise out of the alleged use of Pioneer Sands' sand products in foundries or as an abrasive blast media and have been filed in the states of Texas, Mississippi and Alabama, although some cases have been brought in other jurisdictions over the years.

It is possible that Pioneer Sands will have additional silica-related claims filed against it, including claims that allege silica exposure for periods for which there is not insurance coverage. In addition, it is possible that similar claims could be asserted arising out of the Company's other operations, including its hydraulic fracturing operations. Any pending or future claims or inadequacies of insurance coverage or contractual indemnification could have a material adverse effect on the Company's results of operations.

### ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

# ITEM 2. PROPERTIES

### **Reserve Estimation Procedures and Audits**

The information included in this Report about the Company's proved reserves as of December 31, 2018, 2017 and 2016 is based on evaluations prepared by the Company's engineers and audited by Netherland, Sewell & Associates, Inc. ("NSAI"), with respect to the Company's major properties. The Company has no oil and gas reserves from non-traditional sources. Additionally, the Company does not provide optional disclosure of probable or possible reserves.

Reserve estimation procedures. The Company has established internal controls over reserve estimation processes and procedures to support the accurate and timely preparation and disclosure of reserve estimates in accordance with SEC requirements. These controls include oversight of the reserves estimation reporting processes by Pioneer's Corporate Reserves Group ("Corporate Reserves"), and annual external audits of substantial portions of the Company's proved reserves by NSAI.

Corporate Reserves is responsible for the management of the oil and gas proved reserve estimation processes in each of the Company's asset areas. Corporate Reserves is staffed with reservoir engineers and geoscientists who prepare reserve estimates at the end of each calendar quarter for the assets that they manage, using reservoir engineering information technology. There is oversight of the reservoir engineers by the Director of Corporate Reserves and the Vice President of Corporate Reserves, each of whom is in turn subject to direct or indirect oversight by the Company's management committee ("MC"). The Company's MC is comprised of its Chief Executive Officer, Chief Financial Officer and other executive officers. The reserve estimates are prepared by reservoir engineers before being submitted to the Director and Vice President of Corporate Reserves for further review.

The reserve estimates are summarized in reserve reconciliations that quantify reserve changes since the previous year end as revisions of previous estimates, purchases of minerals-in-place, improved recovery, extensions and discoveries, production and sales of minerals-in-place. All reserve estimates, material assumptions and inputs used in reserve estimates and significant changes in reserve estimates are reviewed for engineering and financial appropriateness and compliance with SEC and GAAP standards by Corporate Reserves, in consultation with the Company's accounting and financial management personnel. Annually, the MC reviews the reserve estimates and any differences with the reserve auditors (for the portion of the reserves audited by NSAI) on a consolidated basis before these estimates are approved. The engineers and geoscientists who participate in the reserve estimation and disclosure process periodically attend training provided by external consultants and through internal Pioneer programs. Additionally, Corporate Reserves has prepared and maintains written policies and guidelines for its staff to reference on reserve estimation and preparation to promote consistency in the preparation of the Company's reserve estimates and compliance with the SEC reserve estimation and reporting rules.

*Proved reserves audits.* The proved reserve audits performed by NSAI for the years ended December 31, 2018, 2017 and 2016, in the aggregate, represented 79 percent, 77 percent and 77 percent of the Company's year-end 2018, 2017 and 2016 proved reserves, respectively; and 95 percent, 91 percent and 93 percent of the Company's year-end 2018, 2017 and 2016 associated pretax present value of proved reserves discounted at ten percent, respectively.

NSAI follows the general principles set forth in the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserve Information" promulgated by the Society of Petroleum Engineers (the "SPE"). A reserve audit as defined by the SPE is not the same as a financial audit. The SPE's definition of a reserve audit includes the following concepts:

A reserve audit is an examination of reserve information that is conducted for the purpose of expressing an opinion as
to whether such reserve information, in the aggregate, is reasonable and has been presented in conformity with the
2007 SPE publication entitled "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves
Information."

- The estimation of reserves is an imprecise science due to the many unknown geologic and reservoir factors that cannot be estimated through sampling techniques. Since reserves are only estimates, they cannot be audited for the purpose of verifying exactness. Instead, reserve information is audited for the purpose of reviewing in sufficient detail the policies, procedures and methods used by a company in estimating its reserves so that the reserve auditors may express an opinion as to whether, in the aggregate, the reserve information furnished by a company is reasonable.
- The methods and procedures used by a company, and the reserve information furnished by a company, must be reviewed in sufficient detail to permit the reserve auditor, in its professional judgment, to express an opinion as to the reasonableness of the reserve information. The auditing procedures require the reserve auditor to prepare their own estimates of reserve information for the audited properties.

In conjunction with the audit of the Company's proved reserves and associated pre-tax present value discounted at ten percent, Pioneer provided to NSAI its external and internal engineering and geoscience technical data and analyses. Following NSAI's review of that data, it had the option of honoring Pioneer's interpretations, or making its own interpretations. No data was withheld from NSAI. NSAI accepted without independent verification the accuracy and completeness of the historical information and data furnished by Pioneer with respect to ownership interest, oil and gas production, well test data, commodity prices, operating and development costs, and any agreements relating to current and future operations of the properties and sales of production. However, if in the course of its evaluations something came to its attention that brought into question the validity or sufficiency of any such information or data, NSAI did not rely on such information or data until it had satisfactorily resolved its questions relating thereto or had independently verified such information or data.

In the course of its evaluations, NSAI prepared, for all of the audited properties, its own estimates of the Company's proved reserves and the pre-tax present values of such reserves discounted at ten percent. NSAI reviewed its audit differences with the Company, and, in a number of cases, held meetings with the Company to review additional reserves work performed by the Company's technical teams and any updated performance data related to the proved reserve differences. Such data was incorporated, as appropriate, by both parties into the proved reserve estimates. NSAI's estimates, including any adjustments resulting from additional data, of those proved reserves and the pre-tax present value of such reserves discounted at ten percent did not differ from Pioneer's estimates by more than ten percent in the aggregate. However, when compared on a lease-by-lease, field-by-field or area-by-area basis, some of the Company's estimates were greater than those of the reserve auditors and some were less than the estimates of the reserve auditors. When such differences do not exceed ten percent in the aggregate and NSAI is satisfied that the proved reserves and pre-tax present values of such reserves discounted at ten percent are reasonable and that its audit objectives have been met, NSAI will issue an unqualified audit opinion. Remaining differences are not resolved due to the limited cost benefit of continuing such analyses by the Company and the reserve auditors. At the conclusion of the audit process, it was NSAI's opinion, as set forth in its audit letter, which is included as an exhibit to this Report, that Pioneer's estimates of the Company's proved oil and gas reserves and associated pre-tax present values discounted at ten percent are, in the aggregate, reasonable and have been prepared in accordance with the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information."

Qualifications of proved reserves preparers and auditors. Corporate Reserves is staffed by petroleum engineers with extensive industry experience and is managed by the Vice President of Corporate Reserves, the technical person who is primarily responsible for overseeing the Company's reserves estimates. These individuals meet the professional qualifications of reserves estimators and reserves auditors as defined by the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information." The qualifications of the Vice President of Corporate Reserves include 41 years of experience as a petroleum engineer, with 34 years focused on reserves reporting for independent oil and gas companies, including Pioneer. His educational background includes an undergraduate degree in Chemical Engineering and a Masters of Business Administration degree in Finance. He is also a Chartered Financial Analyst Charterholder.

NSAI provides worldwide petroleum property analysis services for energy clients, financial organizations and government agencies. NSAI was founded in 1961 and performs consulting petroleum engineering services under Texas Board of Professional Engineers Registration No. F-2699. The technical person primarily responsible for auditing the Company's reserves estimates has been a practicing consulting petroleum engineer at NSAI since 1983 and has over 40 years of practical experience in petroleum engineering, including over 37 years of experience in the estimation and evaluation of proved reserves. He graduated with a Bachelor of Science degree in Chemical Engineering in 1978 and meets or exceeds the education, training and experience requirements set forth in the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information."

Technologies used in proved reserves estimates. Proved undeveloped reserves include those reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for completion. Undeveloped reserves may be classified as proved reserves on undrilled acreage directly offsetting development areas that are reasonably certain of production when drilled, or where reliable technology provides reasonable certainty of economic producibility. Undrilled locations may be classified as having undeveloped proved reserves only if an ability and intent has been established to drill the reserves within five years, unless specific circumstances justify a longer time period.

In the context of reserves estimations, reasonable certainty means a high degree of confidence that the quantities will be recovered and reliable technology means a grouping of one or more technologies (including computational methods) that has been field-tested and has been demonstrated to provide reasonable certainty that the results will be consistent and repeatable in the formation being evaluated or in an analogous formation. In estimating proved reserves, the Company uses several different traditional methods such as performance-based methods, volumetric-based methods and analogy with similar properties. In addition, the Company utilizes additional technical analysis such as seismic interpretation, wireline formation tests, geophysical logs and core data to provide incremental support for more complex reservoirs. Information from this incremental support is combined with the traditional technologies outlined above to enhance the certainty of the Company's proved reserve estimates.

#### **Proved Reserves**

Oil and gas proved reserves, located entirely in the United States, are as follows:

	Summary of	Summary of Oil and Gas Proved Reserves as of Fiscal Year-End Based on Average Fiscal-Year Prices						
		Prove	d Reserve Volu	imes				
	Oil (MBbls)	NGLs (MBbls)	Gas (MMcf) (a)	Total (MBOE)	%			
As of December 31, 2018:								
Developed	521,579	219,730	1,330,852	963,118	92%			
Undeveloped	43,431	21,184	127,722	85,902	8%			
Total proved reserves	565,010	240,914	1,458,574	1,049,020	100%			
As of December 31, 2017:								
Developed	442,364	189,434	1,629,451	903,373	92%			
Undeveloped	40,525	21,063	122,429	81,993	8%			
Total proved reserves	482,889	210,497	1,751,880	985,366	100%			
As of December 31, 2016:								
Developed	343,515	126,928	1,215,861	673,085	93%			
Undeveloped	34,681	10,013	48,868	52,840	7%			
Total proved reserves	378,196	136,941	1,264,729	725,925	100%			

<sup>(</sup>a) Total proved gas reserves contain 106,948 MMcf, 171,623 MMcf and 137,853 MMcf of gas that the Company expected to be produced and used as field fuel (primarily for compressors), rather than being delivered to a sales point as of December 31, 2018, 2017 and 2016, respectively.

The Company's Standardized Measure of total proved reserves are as follows:

	 As of December 31,				
	2018		2017		2016
		(in	millions)		
Proved developed reserves	\$ 10,694	\$	7,708	\$	4,012
Proved undeveloped reserves	639		443		178
Total proved reserves (a)	\$ 11,333	\$	8,151	\$	4,190

<sup>(</sup>a) The Standardized Measure of total proved reserves as of December 31, 2018 and 2017 includes the reduction of the federal corporate income tax rate to 21 percent associated with the enactment of the Tax Cut and Jobs Act.

See "Unaudited Supplementary Information" included in "Item 8. Financial Statements and Supplementary Data" for additional information.

# **Description of Properties**

Development drilling activity by significant asset area is as follows:

	Year Ended De	ecember 31, 2018
	Permian Basin	Total Company
Beginning wells in progress	14	14
Wells spud	38	38
Successful wells	(35)	(35)
Unsuccessful wells	(1)	(1)
Ending wells in progress	16	16

Exploration/extension drilling activity by significant asset area is as follows:

	Year Ended December 31, 2018		
	Permian Basin	<b>Total Company</b>	
Beginning wells in progress	125	136	
Wells spud	289	292	
Successful wells	(250)	(251)	
Unsuccessful wells	(1)	(10)	
Wells sold		(1)	
Ending wells in progress	163	166	

Average daily oil, NGLs, gas and total production by significant asset area are as follows:

	Year Ended December 31, 2018		
	Permian Basin	Total Company	
Oil (Bbls)	181,402	190,639	
NGLs (Bbls)	54,459	63,780	
Gas (Mcf) (a)	282,010	393,391	
Total (BOE)	282,862	319,984	

<sup>(</sup>a) Gas production excludes gas produced and used as field fuel.

Costs incurred by significant asset area are as follows:

	Year Ende	Year Ended December 31, 2018		
	Permian Bas	Permian Basin Total Comp (in millions)		
Property acquisition costs:				
Proved	\$	1	\$	1
Unproved		64		64
Exploration costs	2,	642		2,653
Development costs		911		933
Asset retirement obligations		21		17
Total	\$ 3,	639	\$	3,668

*Permian Basin.* With approximately 760,000 gross acres (680,000 net acres), Pioneer is the largest acreage holder in the Spraberry/Wolfcamp field, which the U.S. Geological Survey ("USGS") estimates is the largest continuous oil field in the United States. Pioneer's interests in the northern portion of the play comprise approximately 560,000 gross acres and its interests in the southern portion of the play, where the Company has a joint venture with Sinochem, comprise approximately 200,000 gross acres. The oil produced from the Spraberry/Wolfcamp field is West Texas Intermediate Sweet, and the gas produced is casinghead gas with an average energy content of 1,400 Btu. The oil and gas are produced primarily from six formations, the Spraberry, the Jo Mill, the Dean, the Wolfcamp, the Strawn and the Atoka, at depths ranging from 7,500 feet to 14,000 feet. The Company believes that it has significant resource potential within its Spraberry, Jo Mill and Wolfcamp formation acreage, based on its extensive geologic data covering the Jo Mill, Lower Spraberry and Middle Spraberry intervals and the Wolfcamp A, B, C and D intervals and its drilling results to date.

During 2018, the Company successfully completed 221 horizontal wells in the northern portion of the play and 64 horizontal wells in the southern portion of the play. In the northern portion of the play, approximately 40 percent of the horizontal wells placed on production were Wolfcamp B interval wells, approximately 45 percent were Wolfcamp A interval wells and approximately 15 percent were Spraberry interval wells. The majority of the wells placed on production in the southern portion of the play were Wolfcamp B interval wells. In addition, the Company continues to complete acreage trades that allow the Company to drill wells with longer laterals, improving the expected returns of the wells. The Company estimates that the acreage trades completed in 2018 added approximately 4.6 million lateral feet to the Company's drilling inventory.

The Company plans to operate 21 to 23 rigs in the Spraberry/Wolfcamp field in 2019, with 16 to 18 rigs operating in the northern portion of the play and five rigs operating in the southern portion of the play. During 2019, the Company expects to place on production between 265 and 290 horizontal wells. Approximately 45 percent of the horizontal wells are planned to be drilled in the Wolfcamp B interval, 35 percent in the Wolfcamp A interval and the remaining 20 percent will be a combination of wells in the Spraberry intervals and a limited appraisal program for the Wolfcamp D interval.

#### **Selected Oil and Gas Information**

**Production, price and cost data.** The price that the Company receives for the oil and gas it produces is largely a function of market supply and demand. Demand is affected by general economic conditions, weather and other seasonal conditions, including hurricanes and tropical storms. Over or under supply of oil or gas can result in substantial price volatility. Historically, commodity prices have been volatile and the Company expects that volatility to continue in the future. A decline in oil, NGL and gas prices or poor drilling results could have a material adverse effect on the Company's financial position, results of operations, cash flows, quantities of oil and gas reserves that may be economically produced and the Company's ability to access the capital markets.

The following tables set forth production, price and cost data with respect to the Company's properties. These amounts represent the Company's historical results of operations without making pro forma adjustments for any acquisitions, divestitures or drilling activity that occurred during the respective years. The production amounts will not match the proved reserve volume tables in the "Unaudited Supplementary Information" section included in "Item 8. Financial Statements and Supplementary Data" because field fuel volumes are included in the proved reserve volume tables. Because of normal production declines, increased or decreased drilling activities and the effects of acquisitions or divestitures, the historical information presented below should not be interpreted as being indicative of future results.

# PRODUCTION, PRICE AND COST DATA

	Year End	Year Ended December 31, 2018		
	Permian B	asin	Total Company	
Production information				
Annual sales volumes:				
Oil (MBbls)	60	6,212	69,58	
NGLs (MBbls)	19	9,878	23,28	
Gas (MMcf)	102	2,934	143,58	
Total (MBOE)	100	3,245	116,79	
Average daily sales volumes:				
Oil (Bbls)	18	1,402	190,63	
NGLs (Bbls)	54	4,459	63,78	
Gas (Mcf)	282	2,010	393,39	
Total (BOE)	282	2,862	319,98	
Average prices:				
Oil (per Bbl)	\$	57.13	\$ 57.3	
NGL (per Bbl)	\$	30.32	\$ 29.8	
Gas (per Mcf)	\$	1.90	\$ 2.1	
Revenue (per BOE)	\$	44.37	\$ 42.7	
Average costs (per BOE):				
Production costs:				
Lease operating	\$	4.27	\$ 4.2	
Third-party transportation charges		2.21	2.5	
Net natural gas plant/gathering		(0.67)	(0.4	
Workover		1.01	0.9	
Total	\$	6.82	\$ 7.3	
Production and ad valorem taxes:				
Ad valorem	\$	0.59	\$ 0.6	
Production		1.94	1.8	
Total	\$ \$	2.53	\$ 2.4	
Depletion expense	\$	13.42	\$ 12.5	

# PRODUCTION, PRICE AND COST DATA - (continued)

	Year Ende	Year Ended December 31, 2017		
	Permian Bas	in	<b>Total Company</b>	
Production information				
Annual sales volumes:				
Oil (MBbls)	53,	889	57,878	
NGLs (MBbls)	16,	096	20,078	
Gas (MMcf)	71,	140	128,665	
Total (MBOE)	81,	842	99,401	
Average daily sales volumes:				
Oil (Bbls)	147,	641	158,571	
NGLs (Bbls)	44,	099	55,008	
Gas (Mcf)	194,	904	352,507	
Total (BOE)	224,	224	272,330	
Average prices:				
Oil (per Bbl)	\$ 48	3.32	\$ 48.24	
NGL (per Bbl)	\$ 18	3.69	\$ 19.31	
Gas (per Mcf)	\$	2.45	\$ 2.63	
Revenue (per BOE)	\$ 37	7.62	\$ 35.39	
Average costs (per BOE):				
Production costs:				
Lease operating	\$	1.36	\$ 4.58	
Third-party transportation charges	(	).19	0.85	
Net natural gas plant/gathering	(1)	0.63)	(0.28	
Workover	(	).87	0.80	
Total	\$	1.79	\$ 5.95	
Production and ad valorem taxes:				
Ad valorem	\$	0.58	\$ 0.57	
Production	1	.81	1.59	
Total		2.39	\$ 2.16	
Depletion expense	\$ 15	5.34	\$ 13.61	

# PRODUCTION, PRICE AND COST DATA - (continued)

	Year Ended I	Year Ended December 31, 2016		
	Permian Basin		Total Company	
Production information				
Annual sales volumes:				
Oil (MBbls)	43,04	9	48,926	
NGLs (MBbls)	10,88	6	15,922	
Gas (MMcf)	51,52	8	124,428	
Total (MBOE)	62,52	3	85,586	
Average daily sales volumes:				
Oil (Bbls)	117,61	9	133,677	
NGLs (Bbls)	29,74	3	43,504	
Gas (Mcf)	140,78	8	339,966	
Total (BOE)	170,82	7	233,842	
Average prices:				
Oil (per Bbl)	\$ 40.3	0 \$	39.65	
NGL (per Bbl)	\$ 13.4	8 \$	13.49	
Gas (per Mcf)	\$ 2.1	1 \$	2.11	
Revenue (per BOE)	\$ 31.8	4 \$	28.25	
Average costs (per BOE):				
Production costs:				
Lease operating	\$ 5.3	5 \$	5.02	
Third-party transportation charges	0.2	0	1.41	
Net natural gas plant/gathering	(0.4	3)	0.01	
Workover	0.3	5	0.35	
Total	\$ 5.4	7 \$	6.79	
Production and ad valorem taxes:				
Ad valorem	\$ 0.5	0 \$	0.46	
Production	1.4	4	1.14	
Total	\$ 1.9	4 \$	1.60	
Depletion expense	\$ 1.9 \$ 19.6	2 \$	16.77	

**Productive wells.** Productive wells consist of producing wells and wells capable of production, including shut-in wells and gas wells awaiting pipeline connections to commence deliveries and oil wells awaiting connection to production facilities. One or more completions in the same well bore are counted as one well. Any well in which one of the multiple completions is an oil completion is classified as an oil well.

Productive oil and gas wells attributable to the Company's properties are as follows:

### PRODUCTIVE WELLS

#### As of December 31, 2018

	Gross Productive Wells	ss Productive Wells Net Productive Wells			
Oil	Gas	Total	Oil	Gas	Total
7,454	694	8,148	6,568	371	6,939

Developed, undeveloped and royalty leasehold acreage is as follows:

### LEASEHOLD ACREAGE

#### As of December 31, 2018

Developed	l Acreage	Undevelope		
Gross Acres	Net Acres	Gross Acres	Net Acres	Royalty Acreage
884,713	736,546	42,913	35,225	106,143

The expiration dates of the leases attributable to gross and net undeveloped acres are as follows:

	As of December 31, 2018 Acres Expiring (a)		
	Gross	Net	
2019	21,739	19,399	
2020	4,565	2,329	
2021	1,517	285	
2022	2,004	1,636	
2023	5,592	5,333	
Thereafter	7,496	6,243	
	42,913	35,225	

<sup>(</sup>a) Acres expiring are based on contractual lease maturities.

Of the 21,728 net acres expiring in 2019 and 2020, 20,254 net acres are concentrated in the Permian Basin in West Texas, where the Company has an active drilling program and ongoing efforts to extend leases that may not be drilled prior to expiration. The Company currently has no proved undeveloped reserve locations scheduled to be drilled after lease expiration. The remaining 1,474 net acres are concentrated in eastern Colorado. The Company has no drilling plans for this acreage and does not have any undeveloped acreage costs recorded as of December 31, 2018 associated with this acreage.

**Drilling and other exploratory and development activities.** The following table sets forth the number of gross and net wells drilled by the Company that were productive or dry holes. This information should not be considered indicative of future performance, nor should it be assumed that there was any correlation between the number of productive wells drilled and the oil and gas reserves generated thereby or the costs to the Company of productive wells compared to the costs of dry holes.

#### **DRILLING ACTIVITIES**

		Gross Wells			Net Wells			
	Year Ei	nded December	r 31,	Year En	r 31,			
	2018	2017	2016	2018	2017	2016		
<b>Productive wells:</b>								
Development	35	26	39	23	20	32		
Exploratory	251	222	215	226	198	194		
Dry holes:								
Development	1	_	_	1	_	_		
Exploratory	10	2	_	6	1	_		
	297	250	254	256	219	226		
Success ratio (a)	96%	99%	100%	97%	99%	100%		

<sup>(</sup>a) Represents the ratio of those wells that were successfully completed as producing wells or wells capable of producing to total wells drilled and evaluated.

Wells in process of being drilled are as follows:

	As of Dece	mber 31, 2018
	Gross Wells	Net Wells
Development	16	10
Exploratory	166	152
	182	162

### ITEM 3. LEGAL PROCEEDINGS

The Company is party to various proceedings and claims incidental to its business. While many of these matters involve inherent uncertainty, the Company believes that the amount of the liability, if any, ultimately incurred with respect to these proceedings and claims will not have a material adverse effect on the Company's consolidated financial position as a whole or on its liquidity, capital resources or future annual results of operations. See Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

# ITEM 4. MINE SAFETY DISCLOSURES

The Company's sand mines are subject to regulation by the Federal Mine Safety and Health Administration under the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006. Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95.1 to this Annual Report filed on Form 10-K.

### **EXECUTIVE OFFICERS OF THE REGISTRANT**

The following table sets forth certain information as of the date of this Report regarding the Company's executive officers. All of the Company's executive officers serve at the discretion of the Company's board of directors. There are no family relationships among any of the Company's directors or executive officers.

Name Position		Age
Scott D. Sheffield	President and Chief Executive Officer	66
Mark S. Berg	Executive Vice President, Corporate/Vertically Integrated Operations	60
Chris J. Cheatwood	Executive Vice President and Chief Technology Officer	58
Richard P. Dealy	Executive Vice President and Chief Financial Officer	52
J.D. Hall	Executive Vice President, Permian Operations	53
Kenneth H. Sheffield, Jr.	Executive Vice President, Operations/Engineering/Facilities	58
William F. Hannes	Senior Vice President, Special Projects	59
Mark H. Kleinman	Senior Vice President and General Counsel	57
Teresa A. Fairbrook	Vice President and Chief Human Resources Officer	45
Margaret M. Montemayor	Vice President and Chief Accounting Officer	41
Neal H. Shah	Vice President, Investor Relations	48
Stephanie D. Stewart	Vice President and Chief Information Officer	50

### Scott D. Sheffield

Mr. Sheffield was appointed Company's President and Chief Executive Officer in February 2019. Previously, he had served as Chief Executive Officer of the Company from 1997 through December 31, 2016, and then as the Executive Chairman until December 31, 2017. He has served as a director of the Company since 1997 and had served as Chairman of the Board from 1999 through February 2019. Mr. Sheffield was the Chairman of the Board of Directors and Chief Executive Officer of Parker & Parsley Petroleum Company, a predecessor of the Company (together with its predecessor companies, "Parker & Parsley"), from January 1989 until the Company was formed in August 1997. Mr. Sheffield joined Parker & Parsley as a petroleum engineer in 1979, was promoted to Vice President - Engineering in September 1981, was elected President and a Director in April 1985, and became Parker & Parsley's Chairman of the Board and Chief Executive Officer on January 19, 1989. Before joining Parker & Parsley, Mr. Sheffield was employed as a production and reservoir engineer for Amoco Production Company. He had also served as Chief Executive Officer and director from June 2007, and as Chairman of the Board from May 2008, of the general partner of Pioneer Southwest Energy Partners L.P. ("Pioneer Southwest") through December 2013. Mr. Sheffield is a distinguished graduate of the University of Texas with a Bachelor of Science degree in Petroleum Engineering.

### Mark S. Berg

Mr. Berg was elected as the Company's Executive Vice President and General Counsel in April 2005, serving in those capacities until January 2014, at which time he assumed broader executive responsibilities, most recently being elected to serve as Executive Vice President, Corporate/Vertically Integrated Operations in May 2017. Mr. Berg had previously served as Executive Vice President, Corporate/Operations since August 2015 and Executive Vice President and General Counsel of the general partner of Pioneer Southwest from June 2007 through the Company's acquisition of Pioneer Southwest in December 2013. Prior to joining the Company, Mr. Berg served as Executive Vice President, General Counsel and Secretary of American General Corporation, a Fortune 200 diversified financial services company, from 1997 through 2002. Subsequent to the sale of American General to American International Group, Inc., Mr. Berg joined Hanover Compressor Company as Senior Vice President, General Counsel and Secretary. He served in that capacity from May 2002 through April 2004. Mr. Berg began his career in 1983 with the Houston-based law firm of Vinson & Elkins L.L.P. He was a partner with the firm from 1990 through 1997. Mr. Berg is also a director of ProPetro Holding Corp. and HighPoint Resources Corporation. Mr. Berg graduated Magna Cum Laude and Phi Beta Kappa with a Bachelor of Arts degree from Tulane University in 1980. He earned his Juris Doctorate with honors from the University of Texas School of Law in 1983.

### Chris J. Cheatwood

Mr. Cheatwood was elected as the Company's Executive Vice President and Chief Technology Officer in May 2017. Mr. Cheatwood had previously served as Executive Vice President, Business Development and Geoscience since November 2011, Executive Vice President, Business Development and Technology from February 2010 until November 2011, Executive Vice President, Geoscience from November 2007 until February 2010, Executive Vice President - Worldwide Exploration from January 2002 until November 2007, Senior Vice President - Worldwide Exploration from December 2000 to January 2002 and Vice

President - Domestic Exploration from July 1998 to December 2000. Mr. Cheatwood also served as an Executive Vice President of the general partner of Pioneer Southwest from June 2007 through the Company's acquisition of Pioneer Southwest in December 2013. Before joining the Company, Mr. Cheatwood spent ten years with Exxon Corporation. Mr. Cheatwood is a graduate of the University of Oklahoma with a Bachelor of Science degree in Geology and earned his Master of Science degree in Geology from the University of Tulsa.

# Richard P. Dealy

Mr. Dealy was elected as the Company's Executive Vice President and Chief Financial Officer in November 2004. Mr. Dealy held positions for the Company as Vice President and Chief Accounting Officer from February 1998 to November 2004 and Vice President and Controller from August 1997 to January 1998. Mr. Dealy also served as Executive Vice President, Chief Financial Officer, Treasurer and Director of the general partner of Pioneer Southwest from June 2007 through the Company's acquisition of Pioneer Southwest in December 2013. Mr. Dealy joined Parker & Parsley in July 1992 and was promoted to Vice President and Controller in 1996, in which position he served until August 1997. Before joining Parker & Parsley, Mr. Dealy was employed by KPMG LLP. Mr. Dealy graduated with honors from Eastern New Mexico University with a Bachelor of Business Administration degree in Accounting and Finance and is a Certified Public Accountant.

### J. D. Hall

Mr. Hall was elected as the Company's Executive Vice President, Permian Operations, in August 2015. Mr. Hall had previously held positions for the Company as Executive Vice President, Southern Wolfcamp Operations from August 2014 to August 2015, Senior Vice President, South Texas Operations from June 2013 to August 2014, Vice President, South Texas Operations from February 2013 to June 2013, Vice President, South Texas Asset Team from September 2012 to February 2013 and Vice President, Eagle Ford Asset Team from January 2010 to September 2012. Prior to his positions in South Texas, he was the Operations Manager in Alaska from January 2005 to January 2010. He previously held several other positions with the Company, including managing offshore, onshore and international projects. He began his career with a predecessor company, MESA, Inc. ("MESA"), in 1989. He has a Bachelor of Science degree in Mechanical Engineering from Texas Tech University and is a Registered Professional Engineer in Texas.

### Kenneth H. Sheffield, Jr.

Mr. Sheffield was elected as the Company's Executive Vice President, Operations/Engineering/Facilities in May 2017. Mr. Sheffield had previously served the Company in a number of executive positions, including Executive Vice President, South Texas Asset Team, Western Asset Team and Corporate Engineering from August 2015 to May 2017, Executive Vice President, South Texas Operations from August 2014 to August 2015, Senior Vice President, Operations and Engineering from June 2013 to August 2014, Vice President, Corporate Engineering from November 2011 to June 2013 and President of the Company's Alaska subsidiary from September 2002 to November 2011. Mr. Sheffield joined MESA in June 1982 and held a number of supervisory and technical positions with MESA in the areas of drilling, production, reservoir engineering and acquisitions until being promoted to Vice President Acquisitions & Development in 1996. He is a graduate of Texas A&M University with a Bachelor of Science degree in Petroleum Engineering.

### William F. Hannes

Mr. Hannes was elected as the Company's Senior Vice President, Special Projects in January 2017. Mr. Hannes had previously served the Company as Senior Vice President, Special Management Committee Advisor since August 2014, Executive Vice President, Southern Wolfcamp Operations from February 2013 until August 2014, Executive Vice President, South Texas Operations from February 2010 until February 2013, Executive Vice President, Business Development from December 2007 until February 2010, Executive Vice President, Worldwide Business Development from November 2005 until December 2007 and Vice President, Engineering and Development from September 2003 until November 2005. Mr. Hannes joined Parker & Parsley in July 1997 as Director of Business Development, and continued to serve the Company in this capacity after the Company's formation in August 1997 until he was promoted to Vice President - Engineering and Development in June 2001, which position he held until November 2005. Prior to joining Parker & Parsley, Mr. Hannes held engineering positions with Mobil Corporation and Superior Oil Company. Mr. Hannes earned his Bachelor of Science degree in Petroleum Engineering from Texas A&M University.

### Mark H. Kleinman

Mr. Kleinman was elected as the Company's Senior Vice President and General Counsel in January 2014. He also held the positions of Corporate Secretary from June 2005 through August 2015, Vice President from May 2006 until January 2014 and Chief Compliance Officer from June 2005 until May 2013. Mr. Kleinman also served as Vice President and Secretary of the general partner of Pioneer Southwest from June 2007 until April 2008 and as its Vice President and Chief Compliance Officer from April

2008 through the Company's acquisition of Pioneer Southwest in December 2013. Mr. Kleinman earned a Bachelor of Arts degree in Government from the University of Texas and graduated, with honors, from the University of Texas School of Law.

#### Teresa A. Fairbrook

Ms. Fairbrook was elected as the Company's Vice President and Chief Human Resources Officer in March 2016, prior to which she had served as Vice President, Human Resources since February 2013. She joined the Company in 1999, serving in a number of positions in the Human Resources Department. Prior to joining the Company, Ms. Fairbrook was in human resources at Dal-Tile Corporation in Dallas, Texas, where she held a variety of roles in employee relations, recruiting and benefits. Ms. Fairbrook received a Bachelor of Business Administration degree from St. Mary's University in San Antonio, Texas, with an emphasis in Human Resource Management, and is a Certified Compensation Professional.

### Margaret M. Montemayor

Ms. Montemayor was elected as the Company's Vice President and Chief Accounting Officer in March 2014. Ms. Montemayor had previously served the Company as Vice President and Corporate Controller since January 2014, Corporate Controller from April 2012 to December 2013 and Director of Technical Accounting and Financial Reporting from June 2010 to March 2012. Prior to joining the Company, Ms. Montemayor served as a Manager at PricewaterhouseCoopers LLP since June 2006. Ms. Montemayor graduated from St. Mary's University in San Antonio, Texas with a Bachelor of Business Administration degree in Accounting and a Master of Business Administration degree and is a Certified Public Accountant.

### Neal H. Shah

Mr. Shah joined the Company in June 2017 as Vice President, Investor Relations. Before joining the Company, Mr. Shah served as Senior Equity Research Analyst at Thrivent Asset Management from June 2016 to June 2017, and as Vice President at Nuveen LLC from March 2006 to June 2016. He has a financial and equity research background and has held various financial analysis positions at Piper Jaffray & Company, RBC Capital Markets and Goldman Sachs & Company. Mr. Shah earned a Bachelor of Science degree in Electrical Engineering from Louisiana State University and a Master of Business Administration degree from the Booth School of Business at the University of Chicago, where he was a Siebel Scholar and a recipient of the Irwin J. Biedrman Leadership award.

# Stephanie D. Stewart

Ms. Stewart joined the Company in June 2014 as Vice President and Chief Information Officer. Before joining the Company, she served as Vice President of E&P Data and Analytics at the end of her 12-year tenure at Devon Energy. Prior to Devon Energy, she worked in information technology at Williams Energy and BP Amoco. Ms. Stewart earned a Bachelor of Business Administration degree from the University of Oklahoma and her Executive Master of Business Administration degree in Energy from the University of Oklahoma's Price College of Business.

Officers are generally elected by the Company's board of directors at its meeting on the day of each annual election of directors, with each such officer serving until a successor has been elected and qualified.

#### **PART II**

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

The Company's common stock is listed and traded on the NYSE under the symbol "PXD." The Company's board of directors has authority to declare dividends to the holders of the Company's common stock. The board of directors intends to consider the payment of dividends to the holders of the Company's common stock in the future. The declaration and payment of future dividends, however, will be at the discretion of the board of directors and will depend on, among other things, the Company's earnings, financial condition, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that the board of directors deems relevant.

As of February 21, 2019, the Company's common stock was held by 9,900 holders of record.

## Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Purchases of the Company's common stock are as follows:

Three months ended December 31, 2018

Period	Total Number of Shares Purchased (a)	verage Price id per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Ai ti P	proximate Dollar mount of Shares hat May Yet Be urchased under ans or Programs (b)
October 2018	51	\$ 175.90	_	\$	77,647,626
November 2018	38	\$ 154.31	_	\$	77,647,626
December 2018	976,412	\$ 130.94	973,465	\$	1,872,535,773
	976,501		973,465		

<sup>(</sup>a) Includes shares purchased from employees in order for employees to satisfy income tax withholding payments related to share-based awards that vested during the period.

<sup>(</sup>b) In February 2018, the Company's board of directors authorized a \$100 million common stock repurchase program. In December 2018, the Company's board of directors canceled the previously authorized program and authorized a new \$2 billion common stock repurchase program.

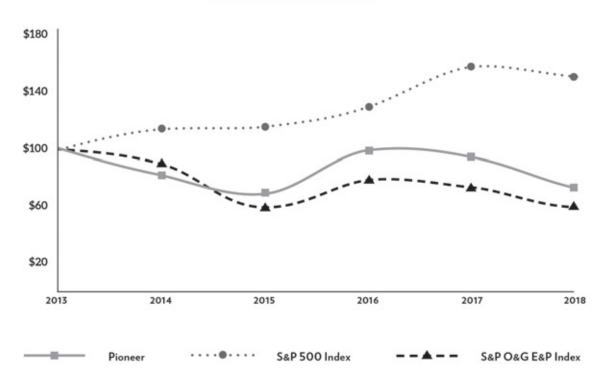
# **Performance Graph**

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall the information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that the Company specifically incorporates it by reference into such filing.

The following graph compares the cumulative total stockholder return on the Company's common stock during the five-year period ended December 31, 2018, with cumulative total returns during the same period for the Standard & Poor's ("S&P") Oil and Gas Exploration & Production Index and the S&P 500.

# COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN\*

Among Pioneer, the S&P 500 Index and the S&P O&G E&P Index



\*\$100 invested on 12/31/13 in stock or index, including reinvestment of dividends.

	As of December 31,									
	2013	2014	2015	2016	2017	2018				
Pioneer Natural Resources Company	\$100.00	\$ 80.90	\$ 68.18	\$ 97.97	\$ 94.09	\$ 71.73				
S&P 500	\$100.00	\$113.69	\$115.26	\$129.05	\$157.22	\$150.33				
S&P Oil & Gas Exploration & Production	\$100.00	\$ 89.41	\$ 58.87	\$ 78.22	\$ 73.29	\$ 58.99				

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

#### ITEM 6. SELECTED FINANCIAL DATA

The Company's selected consolidated financial data as of and for each of the five years ended December 31, 2018 should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data."

			Year 1	End	ed Decemb	er 3	31,	
	2018 2017 2016 2015					2014		
			(in millio	ns, e	xcept per sh	are	data)	
Statements of Operations Data:								
Oil and gas revenues (a)	\$ 4,991	\$	3,518	\$	2,418	\$	2,178	\$ 3,599
Sales of purchased oil and gas (b)	\$ 4,388	\$	1,776	\$	1,091	\$	700	\$ 608
Gain on disposition of assets, net (c)	\$ 290	\$	208	\$	2	\$	782	\$ 9
Total revenues and other income	\$ 9,415	\$	5,455	\$	3,382	\$	4,561	\$ 4,954
Purchased oil and gas (b)	\$ 3,930	\$	1,807	\$	1,155	\$	739	\$ 585
Total costs and expenses (a)(d)	\$ 8,164	\$	5,146	\$	4,341	\$	4,982	\$ 3,357
Income (loss) from continuing operations	\$ 975	\$	833	\$	(556)	\$	(266)	\$ 1,041
Loss from discontinued operations, net of tax	\$ _	\$	_	\$	_	\$	(7)	\$ (111)
Net income (loss) attributable to common stockholders	\$ 978	\$	833	\$	(556)	\$	(273)	\$ 930
Income (loss) from continuing operations attributable to common stockholders per share:								
Basic	\$ 5.71	\$	4.86	\$	(3.34)	\$	(1.79)	\$ 7.17
Diluted	\$ 5.70	\$	4.85	\$	(3.34)	\$	(1.79)	\$ 7.15
Net income (loss) attributable to common stockholders per share:								
Basic	\$ 5.71	\$	4.86	\$	(3.34)	\$	(1.83)	\$ 6.40
Diluted	\$ 5.70	\$	4.85	\$	(3.34)	\$	(1.83)	\$ 6.38
Dividends declared per share	\$ 0.32	\$	0.08	\$	0.08	\$	0.08	\$ 0.08
Balance Sheet Data (as of December 31):								
Total assets	\$ 17,903	\$	17,003	\$	16,459	\$	15,154	\$ 14,909
Long-term obligations	\$ 3,974	\$	3,596	\$	4,482	\$	5,317	\$ 4,901
Total equity	\$ 12,111	\$	11,279	\$	10,411	\$	8,375	\$ 8,589

- (a) Results for 2018 are presented under Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers," while prior period amounts are not adjusted and continue to be reported in accordance with historical accounting under ASC 605, "Revenue Recognition." See Note 2 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.
- (b) The Company enters into purchase transactions with third parties and separate sale transactions with third parties to (i) diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and (ii) satisfy unused gas pipeline capacity commitments. The net balance of these transactions results in either a cash uplift or cash detriment associated with these purchase and sale transactions.
- (c) See Note 3 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.
- (d) The Company recorded unusual items in total costs and expenses as follows:
  - 2018: \$77 million of noncash impairment charges related to the Company's gas field assets in the Raton Basin;
     \$443 million of accelerated depreciation on its sand mine assets to be decommissioned in 2019;
     \$39 million of employee-related charges; and \$124 million of contract termination charges associated with the Company's asset divestitures.
  - 2017: \$285 million of noncash impairment charges related to gas field assets in the Raton Basin.
  - 2016: \$32 million of noncash impairment charges related to oil and gas properties in the West Panhandle gas and liquids field.
  - 2015: \$1.1 billion of noncash impairment charges related to oil and gas properties in the West Panhandle gas and liquids field and West Eagle Ford Shale gas and liquids field.

See Note 3, Note 4 and Note 15 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

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

## **Financial and Operating Performance**

Pioneer's financial and operating performance for 2018 included the following highlights:

- Net income attributable to common stockholders was \$978 million (\$5.70 per diluted share) for the year ended December 31, 2018, as compared to net income of \$833 million (\$4.85 per diluted share) in 2017. The primary components of the \$145 million increase in earnings attributable to common stockholders include:
  - a \$1.5 billion increase in oil and gas revenues as a result of a 21 percent increase in average realized commodity prices per BOE, including the effects of a \$207 million increase in gas and NGL revenues as a result of the adoption of new revenue recognition rules in 2018, combined with a 17 percent increase in sales volumes;
  - a \$489 million increase in net revenue generated by purchases and sales of oil and gas, primarily related to the Company's firm transportation agreements that provide opportunities for enhanced margins by moving oil and gas from the Company's areas of production to price advantaged markets;
  - a \$208 million decrease in impairment charges reflecting the 2018 noncash impairment charge of \$77 million to reduce the carrying value of the Company's Raton Basin assets as compared to the 2017 noncash impairment charge of \$285 million related to the same assets;
  - an \$82 million increase in net gains on disposition of assets reflecting the 2018 divestitures of the Company's pressure
    pumping assets; Sinor Nest (Lower Wilcox) oil field; West Panhandle and West Eagle Ford Shale gas and liquids
    fields; and Raton Basin gas field assets; and
  - a \$27 million decrease in interest expense, primarily due to the repayment of the Company's 6.875% senior notes, which matured in May 2018.

Partially offset by:

- an \$800 million increase in the Company's income tax provision, primarily a result of the 2017 Tax Cuts and Jobs Act, which resulted in recording a \$625 million income tax benefit during 2017;
- a \$605 million increase in other expense, primarily related to a noncash charge of \$443 million associated with the Company's planned closure of its Brady, Texas sand mine and \$173 million of asset divestiture-related charges associated with the sale of the aforementioned pressure pumping assets and oil and gas properties during 2018;
- a \$333 million increase in total oil and gas production costs and production and ad valorem taxes as a result of the
  adoption of new revenue recognition rules, which had the effect of increasing production costs by \$207 million in
  2018 and the aforementioned increases in commodity prices and sales volumes;
- a \$192 million increase in derivative net losses, primarily as a result of changes in forward commodity prices and the cash settlement of derivative positions in accordance with their terms;
- a \$134 million increase in DD&A expense, primarily related to the aforementioned increase in sales volumes due to the Company's successful Spraberry/Wolfcamp horizontal drilling program; and
- a \$55 million increase in general and administrative expense, primarily due to an increase in compensation costs, including benefits expense, as a result of an increase in headcount due to the Company's continued growth and costs associated with the implementation of a new enterprise resource planning system.
- During 2018, average daily sales volumes increased on a BOE basis by 17 percent to 319,984 BOEPD, as compared to 272,330 BOEPD during 2017, primarily due to the Company's successful Spraberry/Wolfcamp horizontal drilling program, which more than offset the loss of production associated with the Company's 2018 divestitures.
- Average oil and NGL prices increased per Bbl in 2018 to \$57.36 and \$29.84, respectively, as compared to \$48.24 and \$19.31, respectively, in 2017. Average gas prices decreased per Mcf in 2018 to \$2.13 as compared to \$2.63 in 2017.
- Net cash provided by operating activities increased by 54 percent to \$3.2 billion for 2018, as compared to \$2.1 billion during 2017, primarily due to increases in the Company's oil and gas revenues in 2018 as a result of increases in commodity prices and sales volumes, partially offset by a \$627 million reduction in cash available from commodity derivative activities.

### First Quarter 2019 Outlook

Based on the Company's ongoing South Texas divestiture process, it is only providing Permian Basin specific estimates for production, production costs and DD&A expense for the quarter ending March 31, 2019. All other operating and financial results for the quarter ending March 31, 2019 provided below reflect the expected results of the total Company.

	Three Months Ending March 31, 2019
	Guidance
	(in millions, except volumes, per BOE amounts and percentages)
Permian Basin Specific Guidance:	
Average daily production (MBOE)	302 - 317
Average daily oil production (MBbl)	194 - 204
Production costs per BOE	\$8.50 - \$10.50
DD&A per BOE	\$13.00 - \$15.00
Total Company Guidance:	
Exploration and abandonments expense	\$20 - \$30
General and administrative expense	\$95 - \$100
Accretion of discount on asset retirement obligations	\$3 - \$6
Interest expense	\$28 - \$33
Other expense	\$45 - \$55
Cash flow uplift from firm transportation	\$40 - \$100
Current income tax provision (benefit)	<\$5
Effective tax rate	21% - 25%

### 2019 Capital Budget

The Company's capital budget for 2019 is expected to be in the range of \$3.1 billion to \$3.4 billion, consisting of \$2.8 billion to \$3.1 billion for drilling and completion related activities, including additional tank batteries and saltwater disposal facilities, and \$300 million for gas processing facilities, water infrastructure, well services and vehicles. The 2019 capital budget excludes acquisitions, asset retirement obligations, capitalized interest and geological and geophysical general and administrative expense and corporate facilities.

The 2019 capital budget is expected to be funded from a combination of operating cash flow, cash and cash equivalents on hand, sales of short-term and long-term investments and, if necessary, proceeds from planned asset divestitures or borrowings under the Company's credit facility.

## **Divestitures**

In February 2018, the Company announced its intention to divest its properties in the South Texas, Raton Basin and West Panhandle fields and focus its efforts and capital resources on its Permian Basin assets.

In December 2018, the Company completed the sale of its pressure pumping assets to ProPetro in exchange for total consideration of \$282 million, comprised of \$110 million of short-term receivables to be paid by ProPetro during the first quarter of 2019 and 16.6 million shares of ProPetro's common stock. On January 1, 2019, ProPetro became a strategic long-term service provider to the Company of pressure pumping and related services. The Company recorded a gain of \$30 million, employee-related charges of \$19 million, contract termination charges of \$13 million and other divestiture-related charges of \$6 million associated with the sale.

In December 2018, the Company completed the sale of approximately 2,900 net acres in the Sinor Nest (Lower Wilcox) oil field in South Texas to an unaffiliated third party for cash proceeds of \$105 million, after normal closing adjustments. During 2018, the Company recorded a gain of \$54 million associated with the sale.

In August 2018, the Company completed the sale of its assets in the West Panhandle gas and liquids field to an unaffiliated third party for net cash proceeds of \$170 million, after normal closing adjustments. The assets sold represent all of the Company's interests in the field, including all of its producing wells and the associated infrastructure. During 2018, the Company recorded a gain of \$127 million and employee-related charges of \$7 million associated with sale.

In July 2018, the Company completed the sale of its gas field assets in the Raton Basin to an unaffiliated third party for net cash proceeds of \$54 million, after normal closing adjustments. The Company recorded a noncash impairment charge of \$77 million in June 2018 to reduce the carrying value of its Raton Basin assets to their estimated fair value less costs to sell as the assets were considered held for sale. The Company recorded a gain of \$2 million associated with this divestiture. The Company also recorded divestiture-related charges of \$117 million, including \$111 million of deficiency charges related to certain firm transportation contracts retained by the Company and employee-related charges of \$6 million.

In April 2018, the Company completed the sale of approximately 10,200 net acres in the West Eagle Ford Shale gas and liquids field to an unaffiliated third party for net cash proceeds of \$100 million, after normal closing adjustments. The Company recorded a gain of \$75 million associated with the sale.

In April 2017, the Company completed the sale of approximately 20,500 acres in the Martin County region of the Permian Basin, with net production of approximately 1,500 BOEPD, to an unaffiliated third party for cash proceeds of \$264 million. The sale resulted in a gain of \$194 million.

See Note 3 and Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

# **Decommissioning Activities**

In November 2018, the Company announced plans to close its sand mine located in Brady, Texas and transition its proppant supply requirements to West Texas sand sources. During 2018, the Company recorded \$443 million of accelerated depreciation and \$7 million of employee-related charges associated with the pending shutdown.

See Note 3 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

### **Results of Operations**

*Oil and gas revenues.* Oil and gas revenues totaled \$5.0 billion, \$3.5 billion and \$2.4 billion for 2018, 2017 and 2016, respectively.

The increase in 2018 oil and gas revenues relative to 2017 is primarily due to increases of 20 percent, 16 percent and 12 percent in oil, NGL and gas sales volumes, respectively, and increases of 19 percent and 55 percent in oil and NGL prices, respectively, with a decrease of 19 percent in gas prices.

The increase in 2017 oil and gas revenues relative to 2016 is primarily due to increases of 19 percent, 26 percent and four percent in oil, NGL and gas sales volumes, respectively, and increases of 22 percent, 43 percent and 25 percent in oil, NGL and gas prices, respectively.

Average daily sales volumes in 2018 and 2017 increased by 17 percent and 16 percent, respectively, as compared to the average daily sales volumes in the respective prior years, principally due to the Company's successful Spraberry/Wolfcamp horizontal drilling program, which more than offset the loss of production associated with the Company's 2018 divestitures.

Average daily sales volumes are as follows:

	Year E	Year Ended December 31,					
	2018	2017	2016				
Oil (Bbls)	190,639	158,571	133,677				
NGLs (Bbls)	63,780	55,008	43,504				
Gas (Mcf) (a)	393,391	352,507	339,966				
Total (BOE)	319,984	272,330	233,842				

<sup>(</sup>a) Gas production excludes gas produced and used as field fuel.

The oil, NGL and gas prices reported by the Company are based on the market prices received for the commodities. The average prices are as follows:

		Year Ended December 31,									
		2018		2017		2016					
Oil (per Bbl)	\$	57.36	\$	48.24	\$	39.65					
NGLs (per Bbl)	\$	29.84	\$	19.31	\$	13.49					
Gas (per Mcf)	\$	2.13	\$	2.63	\$	2.11					
Total (per BOE)	\$	42.73	\$	35.39	\$	28.25					

Sales of purchased oil and gas. The Company enters into pipeline capacity commitments in order to secure available oil, NGL and gas transportation capacity from the Company's areas of production. The Company also enters into purchase transactions with third parties and separate sale transactions with third parties to (i) diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and (ii) satisfy unused gas pipeline capacity commitments. Revenues and expenses from these transactions are presented on a gross basis as the Company acts as a principal in the transaction by assuming both the risk and rewards of ownership, including credit risk, of the commodities purchased and the responsibility to deliver the commodities sold. The transportation costs associated with these transactions are presented on a net basis in purchased oil and gas expense. The net effect of third party purchases and sales of oil and gas for the year ended December 31, 2018 was earnings of \$458 million, as compared to a loss of \$31 million and a loss of \$64 million for the years ended December 31, 2017 and 2016, respectively. Firm transportation payments on excess pipeline capacity are included in other expense in the accompanying consolidated statements of operations. See Note 15 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Interest and other income. The Company's interest and other income was \$38 million for the year ended December 31, 2018, as compared to \$53 million and \$32 million for the years ended December 31, 2017 and 2016, respectively. The decrease in interest and other income for 2018 as compared to 2017 was primarily due to (i) a decrease of \$3 million in interest income from short-term and long-term investments and (ii) a decrease of \$12 million in severance, sales and property tax refunds. The increase in interest and other income for 2017 as compared to 2016 was primarily due to an increase of \$11 million in severance, sales and property tax refunds and an increase of \$10 million in interest income on short-term and long-term investments. See Note 14 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Derivative gains (losses), net. The Company utilizes commodity swap contracts, option contracts and collar contracts with short puts to (i) reduce the effect of price volatility on the commodities the Company produces and sells or consumes, (ii) support the Company's annual capital budgeting and expenditure plans and (iii) reduce commodity price risk associated with certain capital projects. During the year ended December 31, 2018, the Company recorded \$292 million of derivative net losses, compared to \$100 million and \$161 million of derivative net losses for the years ended December 31, 2017 and 2016, respectively, on commodity price, marketing and interest rate derivatives. For the year ended December 31, 2018, the Company made net cash payments of \$562 million related to its derivative activities, as compared to net cash receipts of \$74 million and \$690 million for the years ended December 31, 2017 and 2016, respectively.

Commodity derivatives and the relative price impact (per Bbl or Mcf) are as follows:

#### Year Ended December 31,

			2018 2017 201					2017				
	(pay	cash ments)	Price impact (a)	Net cash receipts (payments		Price impact		cash eipts	Price imp	act		
	(in m	illions)		(in millions	s)		(in mi	illions)				
Oil derivative receipts (payments)	\$	(451)	\$ (6.48) per Bbl	\$ 6	7	\$ 1.15 per Bbl	\$	609	\$12.42 per	Bbl		
NGL derivative receipts (payments)		(1)	\$ (0.05) per Bbl	(	1)	\$ (0.06) per Bbl		5	\$ 0.30 per	Bbl		
Gas derivative receipts (payments)		(22)	\$ (0.15) per Mcf		2	\$ 0.02 per Mcf		67	\$ 0.54 per	Mcf		
Total net commodity derivative receipts (payments)	\$	(474)		\$ 6	8		\$	681				

<sup>(</sup>a) Excludes the effect of liquidating the Company's NYMEX WTI collar contracts with short puts and its Brent swap contracts for cash payments of \$81 million and its ethane basis contracts for cash payments of \$4 million.

The Company's open derivative contracts are subject to continuing market risk. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and Note 5 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Gain on disposition of assets, net.* The Company recorded net gains on the disposition of assets of \$290 million, \$208 million and \$2 million for the years ended December 31, 2018, 2017 and 2016, respectively. For the year ended December 31, 2018, the Company substantially carried out its plan to divest of its properties in the South Texas, Raton Basin and West Panhandle fields and focus its efforts and capital resources on its Permian Basin assets.

During 2018, the Company completed the following divestitures:

Assets sold	Completion date	Net ga	in recorded
		(in	millions)
Pressure pumping assets	December 2018	\$	30
Sinor Nest (Lower Wilcox) oil field (South Texas)	December 2018	\$	54
West Panhandle gas and liquids field (Texas Panhandle)	August 2018	\$	127
Raton Basin gas field (southern Colorado)	July 2018	\$	2
Western portion of Eagle Ford Shale gas and liquids field (South Texas)	April 2018	\$	75

For the year ended December 31, 2017, the Company's gain on disposition of assets is primarily due to a gain of \$194 million recorded on the sale of approximately 20,500 acres in the Martin County region of the Permian Basin.

See Note 3 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information .

*Oil and gas production costs.* The Company recorded oil and gas production costs of \$855 million, \$591 million and \$581 million for the years ended December 31, 2018, 2017 and 2016, respectively. Lease operating expenses and workover expenses represent the components of oil and gas production costs over which the Company has management control. Current year gathering, processing and transportation charges are inclusive of the effect of the adoption of ASC 606 as described in Note 2 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data."

Net natural gas plant/gathering charges represent the net costs to gather and process the Company's gas, reduced by net revenues earned from gathering and processing of third party gas in Company-owned facilities.

Total production costs per BOE are as follows:

	Year Ended December 31,					
		2018		2017		2016
Lease operating expenses	\$	4.29	\$	4.58	\$	5.02
Gathering, processing and transportation expenses		2.52		0.85		1.41
Net natural gas plant (income) charges		(0.41)		(0.28)		0.01
Workover costs		0.92		0.80		0.35
	\$	7.32	\$	5.95	\$	6.79

Total oil and gas production costs per BOE for the year ended December 31, 2018 increased 23 percent and eight percent compared to 2017 and 2016, respectively. Lease operating expense per BOE decreased for the year ended December 31, 2018, as compared to the 2017 and 2016 due to a greater proportion of the Company's production coming from horizontal wells in Spraberry/Wolfcamp area, which have lower per BOE lease operating costs. The adoption of ASC 606 had the effect of increasing gathering, processing and transportation charges by \$1.78 per BOE over what would have been reported if these changes were accounted for under ASC 605. Th decline in gathering, processing and transportation expenses from 2016 to 2017 is primarily attributable to lower aggregate gathering fees in the Eagle Ford field due to declining production. The net natural gas plant income per BOE is primarily reflective of increased earnings on third party volumes that are processed in the Company-owned facilities due to higher NGL prices. The increase in workover costs per BOE was primarily due to an increase in Permian vertical well workover activity due to the improvement in oil and NGL prices.

**Production and ad valorem taxes.** The Company recorded production and ad valorem taxes of \$284 million for 2018, as compared to \$215 million and \$136 million for 2017 and 2016, respectively. In general, production taxes and ad valorem taxes are directly related to commodity price changes; however, Texas ad valorem taxes are based upon prior year commodity prices, whereas production taxes are based upon current year commodity prices. The increase in production and ad valorem taxes per BOE for the year ended December 31, 2018 as compared to 2017 and 2016, is primarily due to the increase in oil and NGL prices during 2017 and 2018 and, for ad valorem tax purposes, the higher valuation attributable to the Company's successful Spraberry/ Wolfcamp horizontal drilling program.

Production and ad valorem taxes per BOE are as follows:

	Year Ended December 31,					
	2018	2017		2016		
Production taxes	\$ 1.83	\$	1.59	\$	1.14	
Ad valorem taxes	0.60		0.57		0.46	
	\$ 2.43	\$	2.16	\$	1.60	

**Depletion, depreciation and amortization expense.** The Company's total DD&A expense was \$1.5 billion (\$13.13 per BOE), \$1.4 billion (\$14.08 per BOE) and \$1.5 billion (\$17.29 per BOE) for 2018, 2017 and 2016, respectively. Depletion expense on oil and gas properties, the largest component of DD&A expense, was \$12.52, \$13.61 and \$16.77 per BOE for 2018, 2017 and 2016, respectively.

Year over year depletion expense on oil and gas properties per BOE for the years ended December 31, 2018, 2017 and 2016 decreased eight percent and 19 percent, respectively. The decrease was primarily due to (i) additions to proved reserves attributable to the Company's successful Spraberry/Wolfcamp horizontal drilling program and (ii) commodity price increases and cost reduction initiatives, both of which had the effect of adding proved reserves by lengthening the economic lives of the Company's producing wells.

Impairment of oil and gas properties and other long-lived assets. The Company performs assessments of its long-lived assets to be held and used, including oil and gas properties, whenever events or circumstances indicate that the carrying values of those assets may not be recoverable.

As a result of the Company's impairment assessments, the Company recorded noncash impairment charges to reduce the carrying values of its oil and gas properties as follows:

- 2018: Raton Basin gas field assets (\$77 million);
- 2017: Raton Basin gas field assets (\$285 million); and
- 2016: West Panhandle gas and liquids field (\$32 million).

See Note 2 and Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Exploration and abandonments expense.* Geological and geophysical costs, exploratory dry holes expense and leasehold abandonments and other exploration expense are as follows:

	Year Ended December 31,					
20	2018		2017		2016	
\$	85	\$	84	\$	77	
	23		10		1	
	6		12		41	
\$	114	\$	106	\$	119	
	\$	\$ 85 23 6	2018 2 (in m \$ 85 \$ 23 6	2018     2017 (in millions)       \$ 85     \$ 84       23     10       6     12	2018     2017       (in millions)       \$ 85     \$ 84       23     10       6     12	

The increase in exploration and abandonments expense of \$8 million for the year ended December 31, 2018, as compared to 2017, was primarily due to a \$13 million increase in exploratory well costs related to the abandonment of seven drilled but not completed exploration wells in South Texas as a result of the Company's decision to focus capital spending on its Permian Basin assets, partially offset by a decrease in leasehold abandonments expense and other of \$6 million. The decrease in exploration and abandonments expense of \$13 million for the year ended December 31, 2017, as compared to 2016, was primarily due to a decrease in leasehold abandonments and other of \$29 million, partially offset by an increase in unsuccessful exploration wells of \$9 million. Leasehold abandonments and other in 2016 included \$32 million associated with unproved acreage in Alaska in which the Company held an overriding royalty interest.

During 2018, 2017 and 2016, the Company completed and evaluated 261, 224, and 215 exploration/extension wells, respectively, and 96 percent, 99 percent, and 100 percent, respectively, were successfully completed as discoveries.

*General and administrative expense.* General and administrative expense totaled \$381 million (\$3.26 per BOE), \$326 million (\$3.28 per BOE) and \$325 million (\$3.80 per BOE) for 2018, 2017 and 2016, respectively. The increase in general and administrative expense for the year ended December 31, 2018, as compared to 2017 and 2016, was primarily due to an increase in compensation costs, including benefits expense, as a result of an increase in headcount due to the Company's continued growth and costs associated with the implementation of a new enterprise resource planning system.

Accretion of discount on asset retirement obligations. Accretion of discount on asset retirement obligations was \$14 million, \$19 million and \$18 million for the years ended December 31, 2018, 2017 and 2016, respectively. See Note 9 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Interest expense. Interest expense was \$126 million, \$153 million and \$207 million for 2018, 2017 and 2016, respectively. The decrease in interest expense for the year ended December 31, 2018, as compared to 2017, was primarily due to the repayment of the Company's 6.875% Senior Notes, which matured in May 2018. The decrease in interest expense for the year ended December 31, 2017, as compared to 2016, was primarily due to the repayment of both the Company's 6.65% Senior Notes, which matured in March 2017, and the Company's 5.875% Senior Notes, which matured in July 2016. The weighted average interest rate on the Company's indebtedness for the year ended December 31, 2018 was 5.4 percent, as compared to 5.6 percent and 6.0 percent for the years ended December 31, 2017 and 2016, respectively.

See Note 7 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Other expense.* Other expense was \$849 million for 2018, as compared to \$244 million for 2017 and \$288 million for 2016. The \$605 million increase in other expense for 2018, as compared to 2017, was primarily due to accelerated depreciation of \$443 million related to the decommissioning of the Company's Brady, Texas sand mine and other divestiture-related charges of \$173 million associated with the Company's 2018 asset divestitures.

The \$44 million decrease in other expense for 2017, as compared to 2016, was primarily due to (i) a decrease of \$64 million in idle drilling and well service equipment charges and (ii) a decrease of \$37 million in net losses from Company-provided fracture stimulation and related service operations that are provided to third party working interest owners, partially offset by (iii) an increase of \$58 million in unused firm transportation costs.

The Company expects to continue to incur charges associated with excess firm gathering and transportation commitments until the contractual obligations expire.

See Note 2, Note 10 and Note 15 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Income tax (provision) benefit.* The Company recorded an income tax provision attributable to earnings of \$276 million during 2018, as compared to an income tax benefit of \$524 million and \$403 million during 2017 and 2016, respectively. The increase of \$800 million in the income tax provision recorded in 2018 as compared to the income tax benefit recorded in 2017 is primarily attributable to a \$625 million income tax benefit recorded during 2017 as a result of the enactment of the December 22, 2017 Tax Cuts and Jobs Act (the "Tax Reform Legislation").

The Company's effective tax rate on earnings, excluding income from noncontrolling interest, for 2018, 2017 and 2016 was 22 percent, (170) percent and 42 percent, respectively, as compared to the combined United States federal and state statutory rates of 22 percent for 2018 and 36 percent for years prior to 2018.

The Company's effective tax rate for 2017 differs from the combined statutory rate primarily due to the enactment of the Tax Reform Legislation, which made significant changes to the U.S. federal income tax law. The most significant change affecting the Company was a reduction in the federal corporate income tax rate to 21 percent beginning January 1, 2018. This rate change resulted in a \$625 million income tax benefit for 2017, primarily associated with the remeasurement of the Company's deferred tax liabilities at the new corporate tax rate as of December 31, 2017. Excluding the effects of the Tax Reform Legislation, the Company's effective tax rate for 2017 would have been 33 percent.

The effective tax rate for 2016 differs from the combined statutory rate primarily due to recognizing research and experimental expenditures credits of \$72 million during 2016 and, to a lesser extent, state income tax apportionments and nondeductible expenses.

See Note 16 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

### **Liquidity and Capital Resources**

*Liquidity.* The Company's primary sources of short-term liquidity are (i) cash and cash equivalents, (ii) net cash provided by operating activities, (iii) sales of short-term and long-term investments, (iv) proceeds from divestitures, (iv) unused borrowing capacity under its credit facility (the "Credit Facility"), (v) issuances of debt or equity securities and (vi) other sources, such as sales of nonstrategic assets.

The Company's primary needs for cash are for (i) capital expenditures, (ii) acquisitions of oil and gas properties, (iii) payments of contractual obligations, including debt maturities, (iv) dividends and share repurchases and (v) working capital obligations. Funding for these cash needs may be provided by any combination of the Company's sources of liquidity. Although the Company expects that its sources of funding will be adequate to fund its 2019 capital expenditures, dividend payments and provide adequate liquidity to fund other needs, including stock repurchases, no assurance can be given that such funding sources will be adequate to meet the Company's future needs.

2019 capital budget. The Company' capital budget for 2019 is expected to be in the range of \$3.1 billion to \$3.4 billion, consisting of \$2.8 billion to \$3.1 billion for drilling and completion related activities, including additional tank batteries and saltwater disposal facilities, and \$300 million for gas processing facilities, water infrastructure, well services and vehicles. The 2019 capital budget excludes acquisitions, asset retirement obligations, capitalized interest, geological and geophysical general and administrative expense and corporate facilities.

Capital resources. Cash flows from operating, investing and financing activities are summarized below.

As of December 31, 2018, the Company had no outstanding borrowings under its Credit Facility, leaving \$1.5 billion of unused borrowing capacity. The Company was in compliance with all of its debt covenants as of December 31, 2018. The Company also had cash on hand of \$825 million, short-term investments of \$443 million and long-term investments of \$125 million as of December 31, 2018.

Operating activities. Net cash provided by operating activities for the years ended December 31, 2018, 2017 and 2016 was \$3.2 billion, \$2.1 billion and \$1.5 billion, respectively. The increase in net cash flow provided by operating activities in 2018, as compared to 2017, was primarily due to increases in the Company's oil and gas revenues in 2018 as a result of increases in commodity prices and sales volumes, partially offset by a \$627 million reduction in cash available from commodity derivative activities. The increase in net cash flow provided by operating activities in 2017, as compared to 2016, was primarily due to increases in the Company's oil and gas revenues in 2017 as a result of increases in commodity prices and sales volumes, partially offset by a \$613 million reduction in cash provided by commodity derivatives.

*Investing activities*. Net cash used in investing activities during 2018 was \$2.6 billion, as compared to net cash used in investing activities of \$1.8 billion and \$3.8 billion during 2017 and 2016, respectively.

The increase of \$818 million in net cash flow used in investing activities during 2018, as compared to 2017, is primarily due an increase of \$1.2 billion in additions to oil and gas properties offset by a decrease of \$235 million in purchases of investments (commercial paper, corporate bonds and time deposits) and a \$117 million increase in net cash proceeds from the disposition of assets. The Company's investing activities during the year ended December 31, 2018 were primarily funded by net cash provided by operating activities.

The decrease of \$2.0 billion in net cash flow used in investing activities during 2017, as compared to 2016, is primarily due to (i) a decrease of \$1.8 billion in purchases of investments (commercial paper, corporate bonds and time deposits), (ii) a \$562 million increase in proceeds from investments and (iii) the purchase of 28,000 net acres in the Permian Basin for \$428 million in 2016, partially offset by (iv) a \$508 million increase in additions to oil and gas properties, (v) a \$155 million decrease in net cash proceeds from the disposition of assets and (v) a \$135 million increase in additions to other property and equipment.

Net cash proceeds received from the Company's significant divestitures are as follows:

<b>Completion Date</b>		Net cash proceeds		
	(i	in millions)		
December 2018	\$	105		
August 2018	\$	170		
July 2018	\$	54		
April 2018	\$	100		
April 2017	\$	264		
July 2015	\$	501		
	December 2018 August 2018 July 2018 April 2018 April 2017	December 2018 \$ August 2018 \$ July 2018 \$ April 2018 \$ April 2017 \$		

<sup>(</sup>a) The Company received total consideration of \$1.0 billion related to the sale of its equity interest in EFS Midstream, of which \$530 million was received at closing in July 2015 and the remaining \$501 million was received in July 2016.

See Note 3 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Financing activities. Net cash used in financing activities during 2018 was \$703 million, as compared to \$529 million during 2017 and net cash provided by financing activities of \$2.0 billion during 2016. The Company's significant financing activities are as follows:

- 2018: The Company repaid \$450 million associated with the maturity of its 6.875% senior notes, repurchased \$179 million of its common stock and paid dividends of \$55 million.
- 2017: The Company repaid \$485 million associated with the maturity of its 6.65% senior notes and repurchased \$36 million of its common stock.
- 2016: The Company repaid \$455 million associated with the maturity of the Company's 5.875% senior notes and received net cash proceeds of \$2.5 billion associated with the sale of shares of its common stock.

See Note 7 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Dividends/distributions. During the year ended December 31, 2018, the Company's board of directors declared semiannual dividends of \$0.16 per common share, compared to semiannual dividends of \$0.04 per common share during each of the years ended December 31, 2017 and 2016. The Company paid \$55 million, \$14 million and \$13 million, respectively, of aggregate dividends. In addition, in February 2019, the board of directors declared a cash dividend of \$0.32 per share on Pioneer's outstanding common stock, payable April 12, 2019 to stockholders of record at the close of business on March 29, 2019. Future dividends are at the discretion of the Company's board of directors, and, if declared, the board of directors may change the dividend amount based on the Company's liquidity and capital resources at that time.

Off-balance sheet arrangements. From time to time, the Company enters into arrangements and transactions that can give rise to material off-balance sheet obligations of the Company. As of December 31, 2018, the material off-balance sheet arrangements and transactions that the Company had entered into included (i) operating lease agreements (primarily related to contracted drilling rigs, equipment and office facilities), (ii) firm purchase, transportation and fractionation commitments, (iii) open purchase commitments and (iv) contractual obligations for which the ultimate settlement amounts are not fixed and determinable. The contractual obligations for which the ultimate settlement amounts are not fixed and determinable include (i) derivative contracts that are sensitive to future changes in commodity prices or interest rates, (ii) gathering, processing (primarily treating and fractionation) and transportation commitments on uncertain volumes of future throughput, (iii) open purchase commitments and (iv) indemnification obligations following certain divestitures. Other than the off-balance sheet arrangements described above, the Company has no transactions, arrangements or other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect the Company's liquidity or availability of or requirements for capital resources. The Company expects to enter into similar contractual arrangements in the future, including incremental derivative contracts and additional firm purchase, transportation and fractionation arrangements, in order to support the Company's business plans. See "Contractual obligations" below and Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Contractual obligations. The Company's contractual obligations include long-term debt, operating leases (primarily related to contracted drilling rigs, equipment and office facilities), capital funding obligations, derivative obligations, firm transportation and fractionation commitments, minimum annual gathering, processing and transportation commitments and other liabilities (including postretirement benefit obligations). Other joint owners in the properties operated by the Company could incur portions of the costs represented by these commitments.

Contractual obligations are estimated as follows:

Payments Due by Year							
2019		2020 and 2021		2022 and 2023		The	ereafter
		(in millions)					
\$	_	\$	950	\$	600	\$	750
	234		266		106		647
	27		_		_		_
	263		2				_
	105		116		54		145
	662		1,384		869		1,516
\$	1,291	\$	2,718	\$	1,629	\$	3,058
		\$ — 234 27 263 105 662	2019  \$ — \$ 234 27 263 105 662	2019 2020 and 2021 (in mi \$ — \$ 950 234 266 27 — 263 2 105 116 662 1,384	2019         2020 and 2021         2020 and 2021           (in millions)         \$         \$ 950 \$           234         266         27           263         2           105         116           662         1,384	2019         2020 and 2021         2022 and 2023           (in millions)           \$ —         \$ 950         \$ 600           234         266         106           27         —         —           263         2         —           105         116         54           662         1,384         869	2019         2020 and 2021         2022 and 2023         The 2021           (in millions)           \$ —         \$ 950         \$ 600         \$           234         266         106

- (a) The amounts included in the table above represent principal maturities only. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and Note 7 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.
- (b) Includes drilling commitments that represent future minimum expenditure commitments for drilling rig services and well commitments under contracts to which the Company was a party on December 31, 2018. See Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.
- (c) Derivative obligations represent net liabilities determined in accordance with master netting arrangements for commodity derivatives that were valued as of December 31, 2018. The Company's commodity derivative contracts are periodically measured and recorded at fair value and continue to be subject to market and credit risk. The ultimate liquidation value of the Company's commodity derivatives will be dependent upon actual future commodity prices, which may differ materially from the inputs used to determine the derivatives' fair values as of December 31, 2018. See Note 5 and Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" and "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" for additional information.
- (d) Open purchase commitments primarily represent expenditure commitments for inventories, materials and other property and equipment ordered, but not received, as of December 31, 2018.
- (e) The Company's other liabilities represent current and noncurrent other liabilities that are comprised of litigation and environmental contingencies, asset retirement obligations and other obligations for which neither the ultimate settlement amounts nor their timings can be precisely determined in advance. See Note 8, Note 9 and Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.
- (f) Firm purchase, gathering, processing, transportation and fractionation commitments represent take-or-pay agreements, which include (i) contractual commitments to purchase sand and water for use in the Company's drilling operations and

(ii) estimated fees on production throughput commitments and demand fees associated with volume delivery commitments. The Company does not expect to be able to fulfill all of its short-term and long-term volume delivery obligations from projected production of available reserves; consequently, the Company plans to purchase third party volumes to satisfy its commitments if it is economic to do so; otherwise, it will pay demand fees for any commitment shortfalls. See "Item 2. Properties" and Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

**Debt ratings.** The Company is rated as mid-investment grade by three credit rating agencies. The Company receives debt credit ratings from several of the major ratings agencies, which are subject to regular reviews. The Company believes that each of the rating agencies considers many factors in determining the Company's ratings, including: (i) production growth opportunities, (ii) liquidity, (iii) debt levels, (iv) asset composition and (v) proved reserve mix. A reduction in the Company's debt ratings could increase the interest rates that the Company incurs on Credit Facility borrowings and could negatively impact the Company's ability to obtain additional financing or the interest rate, fees and other terms associated with such additional financing.

**Book capitalization and current ratio.** The Company's net book capitalization at December 31, 2018 was \$13.0 billion, consisting of cash and cash equivalents of \$825 million, short-term and long-term investments of \$568 million, debt of \$2.3 billion and equity of \$12.1 billion. The Company's net debt to book capitalization increased to seven percent at December 31, 2018 from five percent at December 31, 2017, primarily due to funding the Company's oil and gas drilling and other property investments with cash flow from operations and a portion of the Company's cash and cash equivalents. The Company's ratio of current assets to current liabilities remained consistent between periods at 1.42:1 at December 31, 2018, as compared to 1.41:1 at December 31, 2017.

## **Critical Accounting Estimates**

The Company prepares its consolidated financial statements for inclusion in this Report in accordance with GAAP. See Note 2 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information. The following is a discussion of the Company's most critical accounting estimates, judgments and uncertainties that are inherent in the Company's application of GAAP.

Asset retirement obligations. The Company has significant obligations to remove tangible equipment and facilities and to restore the land at the end of oil and gas production operations. The Company's removal and restoration obligations are primarily associated with plugging and abandoning wells. Estimating the future restoration and removal costs is difficult and requires management to make estimates and judgments because most of the removal obligations are many years in the future and contracts and regulations often have vague descriptions of what constitutes removal. Asset removal technologies and costs are constantly changing, as are regulatory, political, environmental, safety and public relations considerations.

Inherent in the present value calculation are numerous assumptions and judgments including the ultimate settlement amounts, credit-adjusted discount rates, timing of settlement and changes in the legal, regulatory, environmental and political environments. To the extent future revisions to these assumptions impact the present value of the existing asset retirement obligations, a corresponding adjustment is generally made to the oil and gas property or other property and equipment balance. See Note 9 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Successful efforts method of accounting. The Company utilizes the successful efforts method of accounting for oil and gas producing activities as opposed to the alternate acceptable full cost method. In general, the Company believes that net assets and net income are more conservatively measured under the successful efforts method of accounting for oil and gas producing activities than under the full cost method, particularly during periods of active exploration. The critical difference between the successful efforts method of accounting and the full cost method is as follows: under the successful efforts method, exploratory dry holes and geological and geophysical exploration costs are charged against earnings during the periods in which they occur; whereas, under the full cost method of accounting, such costs and expenses are capitalized as assets, pooled with the costs of successful wells and charged against the earnings of future periods as a component of depletion expense. During 2018, 2017 and 2016, the Company recorded exploration and abandonments expense of \$114 million, \$106 million and \$119 million, respectively.

**Proved reserve estimates.** Estimates of the Company's proved reserves included in this Report are prepared in accordance with GAAP and SEC guidelines. The accuracy of a reserve estimate is a function of:

- the quality and quantity of available data;
- the interpretation of that data;
- the accuracy of various mandated economic assumptions; and
- the judgment of the persons preparing the estimate.

The Company's proved reserve information included in this Report as of December 31, 2018, 2017 and 2016 was prepared by the Company's engineers and audited by independent petroleum engineers with respect to the Company's major properties. Estimates prepared by third parties may be higher or lower than those included herein.

Because these estimates depend on many assumptions, all of which may substantially differ from future actual results, proved reserve estimates will be different from the quantities of oil and gas that are ultimately recovered. In addition, results of drilling, testing and production after the date of an estimate may justify, positively or negatively, material revisions to the estimate of proved reserves.

It should not be assumed that the Standardized Measure included in this Report as of December 31, 2018 is the current market value of the Company's estimated proved reserves. In accordance with SEC requirements, the Company based the 2018 Standardized Measure on a twelve month average of commodity prices on the first day of each month in 2018 and prevailing costs on the date of the estimate. Actual future prices and costs may be materially higher or lower than the prices and costs utilized in the estimate. See "Item 2. Properties" and Unaudited Supplementary Information included in "Item 8. Financial Statements and Supplementary Data" for additional information.

The Company's estimates of proved reserves materially impact depletion expense. If the estimates of proved reserves decline, the rate at which the Company records depletion expense will increase, reducing future net income. Such a decline may result from lower commodity prices, which may make it uneconomical to drill for and produce higher cost fields. In addition, a decline in proved reserve estimates may impact the outcome of the Company's assessment of its proved properties and goodwill for impairment.

Impairment of proved oil and gas properties. The Company reviews its proved properties to be held and used whenever management determines that events or circumstances indicate that the recorded carrying value of the properties may not be recoverable. Management assesses whether or not an impairment provision is necessary based upon estimated future recoverable proved and risk-adjusted probable and possible reserves, Management's Price Outlooks, production and capital costs expected to be incurred to recover the reserves, discount rates commensurate with the nature of the properties and net cash flows that may be generated by the properties. Proved oil and gas properties are reviewed for impairment at the level at which depletion of proved properties is calculated. See Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

*Impairment of unproved oil and gas properties.* At December 31, 2018, the Company carried unproved property costs of \$601 million. Management assesses unproved oil and gas properties for impairment on a project-by-project basis. Management's impairment assessments include evaluating the results of exploration activities, Management's Price Outlooks and planned future sales or expiration of all or a portion of such projects.

**Suspended wells.** The Company suspends the costs of exploratory wells that discover hydrocarbons pending a final determination of the commercial potential of the discovery. The ultimate disposition of these well costs is dependent on the results of future drilling activity and development decisions. If the Company decides not to pursue additional appraisal activities or development of these fields, the costs of these wells will be charged to exploration and abandonment expense.

The Company does not carry the costs of drilling an exploratory well as an asset in its consolidated balance sheets following the completion of drilling unless both of the following conditions are met:

- (i) The well has found a sufficient quantity of reserves to justify its completion as a producing well; and
- (ii) The Company is making sufficient progress assessing the reserves and the economic and operating viability of the project.

Due to the capital intensive nature and the geographical location of certain projects, it may take an extended period of time to evaluate the future potential of an exploration project and economics associated with making a determination on its commercial viability. In these instances, the project's feasibility is not contingent upon price improvements or advances in technology, but rather the Company's ongoing efforts and expenditures related to accurately predicting the hydrocarbon recoverability based on well information, gaining access to other companies' production, transportation or processing facilities and/or getting partner approval to drill additional appraisal wells. These activities are ongoing and being pursued constantly. Consequently, the Company's assessment of suspended exploratory well costs is continuous until a decision can be made that the well has found proved reserves to sanction the project or is noncommercial and is impaired. See Note 6 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

**Deferred tax asset valuation allowances.** The Company continually assesses both positive and negative evidence to determine whether it is more likely than not that its deferred tax assets will be realized prior to their expiration. Pioneer monitors Company-specific, oil and gas industry and worldwide economic factors and based on that information, along with other data,

reassesses the likelihood that the Company's net operating loss carryforwards and other deferred tax attributes in each jurisdiction will be utilized prior to their expiration. There can be no assurance that facts and circumstances will not materially change and require the Company to establish deferred tax asset valuation allowances in certain jurisdictions in a future period.

Uncertain tax positions. The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The Company had unrecognized tax benefits resulting from research and experimental expenditures related to horizontal drilling and completion innovations. If all or a portion of the unrecognized tax benefit is sustained upon examination by the taxing authorities, the tax benefit will be recognized as a reduction to the Company's deferred tax liability and will affect the Company's effective tax rate in the period it is recognized. See Note 16 of Notes to the Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Goodwill impairment. The Company reviews its goodwill for impairment at least annually. During the third quarter of 2018, the Company performed a qualitative assessment of goodwill to assess whether it was more likely than not that the fair value of the Company's reporting unit was less than its carrying amount as a basis for determining whether it was necessary to record a noncash impairment charge. The Company determined that it was more likely than not that the Company's goodwill was not impaired. There is considerable judgment involved in estimating fair values, particularly in determining the valuation methodologies to utilize, the estimation of proved reserves as described above and the weighting of different valuation methodologies applied.

Litigation and environmental contingencies. The Company makes judgments and estimates in recording liabilities for ongoing litigation and environmental remediation. Actual costs can vary from such estimates for a variety of reasons. The costs to settle litigation can vary from estimates based on differing interpretations of laws and opinions and assessments on the amount of damages. Similarly, environmental remediation liabilities are subject to change because of changes in laws and regulations, developing information relating to the extent and nature of site contamination and improvements in technology. A liability is recorded for these types of contingencies if the Company determines the loss to be both probable and reasonably estimable. See Note 10 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Valuation of stock-based compensation. The Company calculates the fair value of stock-based compensation using various valuation methods. The valuation methods require the use of estimates to derive the inputs necessary to determine fair value. The Company utilizes (i) the Black-Scholes option pricing model to measure the fair value of stock options, (ii) the closing stock price on the day prior to the date of grant for the fair value of restricted stock awards, (iii) the closing stock price on the balance sheet date for restricted stock awards that are expected to be settled wholly or partially in cash on their vesting date and (iv) the Monte Carlo simulation method for the fair value of performance unit awards. See Note 8 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Valuation of other assets and liabilities at fair value. The Company periodically measures and records certain assets and liabilities at fair value. The assets and liabilities that the Company measures and records at fair value on a recurring basis include trading securities, commodity derivative contracts and interest rate contracts. Other assets are not measured at fair value on an ongoing basis, but are subject to fair value adjustments in certain circumstances. The assets and liabilities that the Company measures and records at fair value on a nonrecurring basis include inventories, proved and unproved oil and gas properties, assets acquired and liabilities assumed in business combinations and other long-lived assets that are written down to fair value when they are determined to be impaired or held for sale. The Company also measures and discloses certain financial assets and liabilities at fair value, such as long-term debt and investments. The valuation methods used by the Company to measure the fair values of these assets and liabilities may require considerable management judgment and estimates to derive the inputs necessary to determine fair value estimates, such as future prices, credit-adjusted risk-free rates and current volatility factors. See Note 4 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

### **New Accounting Pronouncements**

The effects of new accounting pronouncements are discussed in Note 2 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data."

### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In the normal course of business, the Company's financial position is routinely subject to a variety of risks, including market risks associated with changes in commodity prices, interest rate movements on outstanding debt and credit risks. These risks are mitigated through the Company's risk management program, which includes the use of derivative instruments. The following quantitative and qualitative information is provided about financial instruments to which the Company was a party as of December 31, 2018, and from which the Company may incur future gains or losses from changes in commodity prices or interest rates. The Company does not enter into any financial instruments, including derivatives, for speculative or trading purposes.

Interest rate risk. As of December 31, 2018 the Company had no variable rate debt outstanding under its credit facility and therefore no related exposure to interest rate risk. As of December 31, 2018, the Company had \$2.3 billion of fixed rate long-term debt outstanding with an weighted average interest rate of 5.4 percent. Although changes in interest rates may affect the fair value of the Company's fixed rate long-term debt, any changes would not expose the Company to the risk of earnings or cash flow losses. The Company has no interest rate derivative instruments outstanding; however, it may enter into such instrument in the future to mitigate interest rate risk. See Note 4 and Note 7 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

Commodity price risk. The Company's primary market risk exposure is in the price it receives from the sale of its oil, NGL and gas production. Realized pricing is volatile and is determined by market prices that fluctuate with changes in supply and demand for these products throughout the world. The price the Company receives for its production depends on many factors outside of the control of the Company, including differences in commodity pricing at the point of sale versus various index prices. Reducing the Company's exposure to price volatility helps secure funds to be used in its capital program. The Company mitigates its commodity price risk through the use of derivative financial instruments and sales of purchased oil and gas.

Derivative financial instruments. The Company's decision on the quantity and price at which it executes derivative contracts is based in part on its view of current and future market conditions. The Company may choose not to enter into derivative positions for expected production if the price environment for certain time periods is deemed to be unfavorable. Additionally, the Company may choose to liquidate existing derivative positions prior to the expiration of their contractual maturity in order to monetize gain positions for the purpose of funding its capital program. While derivative positions limit the downside risk of adverse price movements, it also limits future revenues from upward price movements. The Company manages commodity price risk with the following types of derivative contracts:

- Swaps. The Company receives a fixed price and pays a floating market price to the counterparty on a notional amount of sales volumes, thereby fixing the price for the commodity sold.
- *Collars*. Collar contracts provide minimum ("floor" or "long put") and maximum ("ceiling") prices on a notional amount of sales volumes, thereby allowing some price participation if the relevant index price closes above the floor price but below the ceiling price.
- *Collar contracts with short put options*. Collar contracts with short put options differ from other collar contracts by virtue of the short put option price, below which the Company's realized price will exceed the variable market prices by the long put-to-short put price differential.
- Basis swaps. Basis swap contracts fix the basis differentials between the index price at which the Company sells its production and the index price used in swap or collar contracts.
- Options. Selling individual call options can enhance the market price by the premium received or the premium received can be utilized to improve swap or collar contract prices. Purchased put options establish a minimum floor price (less any premiums paid) and allows participation in higher prices when prices close above the floor price.

The Company has entered into derivative contracts for only a small portion of its forecasted 2019 production; consequently, if commodity prices decline, the Company could realize lower prices for volumes not protected by the Company's derivative activities and could see a reduction in derivative contract prices on additional volumes in the future. As a result, the Company's internal cash flows will be negatively impacted by a reduction in commodity prices.

The average forward prices based on December 31, 2018 market quotes are as follows:

		20	19		
	First uarter	Second Quarter	(	Third Quarter	Fourth Quarter
Average forward Brent oil price	\$ 54.04	\$ 54.74	\$	54.99	\$ 55.25
Average forward NYMEX gas price	\$ 2.90	\$ 2.69	\$	2.75	\$ 2.83
Permian Basin index swap contracts:					
Average forward basis differential price (a)	\$ (1.72)	\$ (1.75)	\$	(1.34)	\$ _
Southern California index swap contracts:					
Average forward basis differential price (b)	\$ 1.45	\$ 0.87	\$	1.54	\$ 0.96

The average forward prices based on February 21, 2019 market quotes are as follows:

		20	19		
	First uarter	Second Quarter		Third Quarter	Fourth Quarter
Average forward Brent oil price	\$ 67.13	\$ 66.97	\$	66.57	\$ 66.13
Average forward NYMEX gas price	\$ 2.70	\$ 2.75	\$	2.84	\$ 2.92
Permian Basin index swap contracts:					
Average forward basis differential price (a)	\$ (1.44)	\$ (1.67)	\$	(1.38)	\$ _
Southern California index swap contracts:					
Average forward basis differential price (b)	\$ 1.55	\$ 1.03	\$	1.56	\$ 0.92

- (a) Based on market quotes for basis differentials between Permian Basin index prices and the NYMEX Henry Hub index price. The Company currently has no Permian Basin index swap contracts covering the fourth quarter of 2019.
- (b) Based on market quotes for basis differentials between Permian Basin index prices and southern California index prices.

See Note 4 and Note 5 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for a description of the Company's open derivative positions and additional information.

Sales of purchased oil and gas. The Company enters into pipeline capacity commitments in order to secure available oil, NGL and gas transportation capacity from the Company's areas of production. The Company also enters into purchase transactions with third parties and separate sale transactions with third parties to (i) diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and (ii) satisfy unused gas pipeline capacity commitments.

*Credit risk.* The Company's primary concentration of credit risks are associated with the collection of receivables resulting from the sale of oil and gas production and purchased oil and gas and the risk of a counterparty's failure to meet its obligations under derivative contracts with the Company.

The Company's oil and gas is sold to various purchasers who must be prequalified under the Company's credit risk policies and procedures. The Company monitors exposure to counterparties primarily by reviewing credit ratings, financial criteria and payment history. Where appropriate, the Company obtains assurances of payment, such as a guarantee by the parent company of the counterparty or other credit support. Historically, the Company's credit losses on oil and gas receivables have not been material.

The Company uses credit and other financial criteria to evaluate the credit standing of, and to select, counterparties to its derivative instruments. Although the Company does not obtain collateral or otherwise secure the fair value of its derivative instruments, associated credit risk is mitigated by the Company's credit risk policies and procedures.

The Company has entered into International Swap Dealers Association Master Agreements ("ISDA Agreements") with each of its derivative counterparties. The terms of the ISDA Agreements provide the Company and the counterparties with right of set off upon the occurrence of defined acts of default by either the Company or a counterparty to a derivative contract, whereby the party not in default may set off all derivative liabilities owed to the defaulting party against all derivative asset receivables from the defaulting party. See Note 5 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Pioneer Natural Resources Company

### **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Pioneer Natural Resources Company (the Company) as of December 31, 2018 and 2017, and the related consolidated statements of operations, equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 26, 2019 expressed an unqualified opinion thereon.

### Adoption of ASU No. 2014-09

As discussed in Note 2 to the consolidated financial statements, the Company changed its method for recognizing revenue as a result of the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the related amendments, effective January 1, 2018.

### **Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1998. Dallas, Texas February 26, 2019

# CONSOLIDATED BALANCE SHEETS (in millions)

	Decem	ber 31	Ι,
	2018		2017
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 825	\$	896
Short-term investments	443		1,213
Accounts receivable:			
Trade, net	694		644
Due from affiliates	120		1
Income taxes receivable	7		7
Inventories	242		212
Derivatives	52		11
Investment in affiliate	172		_
Other	 25		23
Total current assets	2,580		3,007
Property, plant and equipment, at cost:			
Oil and gas properties, using the successful efforts method of accounting:			
Proved properties	21,165		20,404
Unproved properties	601		558
Accumulated depletion, depreciation and amortization	 (8,218)		(9,196)
Total property, plant and equipment	13,548		11,766
Long-term investments	125		66
Goodwill	264		270
Other property and equipment, net	1,291		1,762
Other assets	95		132
	\$ 17,903	\$	17,003

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

# CONSOLIDATED BALANCE SHEETS (continued) (in millions, except share data)

	Ι	)ecem	ber 31	
	2018			2017
LIABILITIES AND EQUITY				
Current liabilities:				
Accounts payable:				
Trade	\$ 1	,441	\$	1,174
Due to affiliates		183		108
Interest payable		53		59
Income taxes payable		2		_
Current portion of long-term debt		_		449
Derivatives		27		232
Other		112		106
Total current liabilities	1	,818		2,128
Long-term debt	2	,284		2,283
Derivatives		_		23
Deferred income taxes	1	,152		899
Other liabilities		538		391
Equity:				
Common stock, \$.01 par value; 500,000,000 shares authorized; 174,321,171 and 173,796,743 shares issued as of December 31, 2018 and 2017, respectively		2		2
Additional paid-in capital	9	,062		8,974
Treasury stock, at cost; 4,822,069 and 3,608,132 shares as of December 31, 2018 and 2017, respectively	(	(423)		(249)
Retained earnings	3	,470		2,547
Total equity attributable to common stockholders	12	,111		11,274
Noncontrolling interest in consolidated subsidiaries		_		5
Total equity	12	,111		11,279
Commitments and contingencies				
	\$ 17	,903	\$	17,003

# **CONSOLIDATED STATEMENTS OF OPERATIONS** (in millions, except per share data)

	Year	Ende	d Decembe	er 31,	,
	 2018		2017		2016
Revenues and other income:					
Oil and gas	\$ 4,991	\$	3,518	\$	2,418
Sales of purchased oil and gas	4,388		1,776		1,091
Interest and other	38		53		32
Derivative losses, net	(292)		(100)		(161)
Gain on disposition of assets, net	290		208		2
	9,415		5,455		3,382
Costs and expenses:					
Oil and gas production	855		591		581
Production and ad valorem taxes	284		215		136
Depletion, depreciation and amortization	1,534		1,400		1,480
Purchased oil and gas	3,930		1,807		1,155
Impairment of oil and gas properties	77		285		32
Exploration and abandonments	114		106		119
General and administrative	381		326		325
Accretion of discount on asset retirement obligations	14		19		18
Interest	126		153		207
Other	 849		244		288
	8,164		5,146		4,341
Income (loss) before income taxes	 1,251		309		(959)
Income tax benefit (provision)	 (276)		524		403
Net income (loss)	975		833		(556)
Net loss attributable to noncontrolling interests	 3				_
Net income (loss) attributable to common stockholders	\$ 978	\$	833	\$	(556)
Net income (loss) per share attributable to common stockholders:					
Basic	\$ 5.71	\$	4.86	\$	(3.34)
Diluted	\$ 5.70	\$	4.85	\$	(3.34)
Basic and diluted weighted average shares outstanding	171		170		166

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

# CONSOLIDATED STATEMENTS OF EQUITY (in millions, except share data and dividends per share)

quity Attributable to Common Stockholders

		Equit	y Attribut	able to C	Equity Attributable to Common Stockholders	olders		
	Shares Outstanding	Common Stock	Additional Paid-in Capital	onal in ial	Treasury Stock	Retained Earnings	Noncontrolling Interests	Total Equity
	(in thousands)							
Balance as of December 31, 2015	149,380	\$ 2	<b>⇔</b>	6,267 \$	(199)	\$ 2,298	5	\$ 8,375
Issuance of common stock	19,838			2,534				2,534
Dividends declared (\$0.08 per share)						(14)		(14)
Exercise of long term incentive plan stock options and employee stock purchases	86	I		п	9	I	I	7
Purchase of treasury stock	(200)				(25)		1	(25)
Tax benefits related to stock-based compensation								
Compensation costs:								
Vested compensation awards, net	809						1	
Compensation costs included in net loss				68			1	68
Net loss					I	(556)		(556)
Balance as of December 31, 2016	169,724	\$ 2	<del>S</del>	8,892 \$	(218)	\$ 1,728	5	\$ 10,411
Dividends declared (\$0.08 per share)				 		(14)		(14)
Exercise of long-term incentive plan stock options and employee stock purchases	81			П	S		I	9
Purchase of treasury stock	(191)				(36)			(36)
Compensation costs:								
Vested compensation awards, net	575							
Compensation costs included in net income				79				79
Purchase of noncontrolling interest				2			(2)	
Net income						833		833
Balance as of December 31, 2017	170,189	\$ 2	\$	8,974 \$	(249)	\$ 2,547	\$ 5	\$ 11,279

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

# CONSOLIDATED STATEMENTS OF EQUITY (continued) (in millions, except share data and dividends per share)

Equity Attributable to Common Stockholders

			Additional				
	Shares Outstanding	Common Stock	Paid-in Capital	Treasury Stock	Retained Earnings	Noncontrolling Interests	Total Equity
	(in thousands)						
Balance as of December 31, 2017	170,189	\$ 2	\$ 8,974	\$ (249) \$	2,547	\$	\$ 11,279
Dividends declared (\$0.32 per share)					(55)		(55)
Exercise of long-term incentive plan stock options and employee stock purchases	58			3			∞
Purchases of treasury stock	(1,272)			- (179)			(179)
Compensation costs:							
Vested compensation awards	524						
Compensation costs included in net income			85				85
Sale of noncontrolling interest						(2)	(2)
Net income (loss)					978	(3)	975
Balance as of December 31, 2018	169,499	\$ 2	\$ 9,062	(423)	3,470	\$	\$ 12,111

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

# CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

	Year 1	Ended	Decembe	er 3	1,
	2018	2	2017		2016
Cash flows from operating activities:					
Net income (loss)	\$ 975	\$	833	\$	(556)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:					
Depletion, depreciation and amortization	1,534		1,400		1,480
Impairment of oil and gas properties	77		285		32
Impairment of inventory and other property and equipment	11		2		8
Exploration expenses, including dry holes	27		22		42
Deferred income taxes	274		(519)		(379)
Gain on disposition of assets, net	(290)		(208)		(2)
Accretion of discount on asset retirement obligations	14		19		18
Interest expense	5		5		13
Derivative related activity	(270)		174		851
Amortization of stock-based compensation	85		79		89
Other	658		85		70
Change in operating assets and liabilities					
Accounts receivable	(52)		(120)		(141)
Income taxes receivable	_		(4)		40
Inventories	(70)		(35)		(32)
Derivatives	_		_		(24)
Investments	4		(2)		(21)
Other current assets	(1)		3		(3)
Accounts payable	321		134		58
Interest payable	(5)		(9)		3
Other current liabilities	(55)		(45)		(46)
Net cash provided by operating activities	3,242		2,099		1,500
Cash flows from investing activities:	 				
Proceeds from disposition of assets, net of cash sold	469		352		507
Payments for acquisitions	_				(428)
Proceeds from investments	1,373		1,467		905
Purchase of investments	(669)		(904)		(2,741)
Additions to oil and gas properties	(3,520)		(2,365)		(1,857)
Additions to other assets and other property and equipment, net	(263)		(342)		(207)
Net cash used in investing activities	(2,610)		(1,792)		(3,821)
Cash flows from financing activities:					
Principal payments on long-term debt	(450)		(485)		(455)
Proceeds from issuance of common stock, net of issuance costs	_		_		2,534
Payments of other liabilities	(23)		_		_
Exercise of long-term incentive plan stock options and employee stock purchases	8		6		7
Purchases of treasury stock	(179)		(36)		(25)
Payments of financing fees	(4)		_		_
Dividends paid	(55)		(14)		(13)
Net cash provided by (used in) financing activities	(703)		(529)		2,048
Net decrease in cash and cash equivalents	(71)		(222)		(273)
Cash and cash equivalents, beginning of period	896		1,118		1,391
Cash and cash equivalents, end of period	\$ 825	\$	896	\$	1,118

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

### **NOTE 1. Organization and Nature of Operations**

Pioneer Natural Resources Company ("Pioneer" or the "Company") is a Delaware corporation whose common stock is listed and traded on the New York Stock Exchange. The Company is a large independent oil and gas exploration and production company that explores for, develops and produces oil, natural gas liquids ("NGLs") and gas within the United States, with operations primarily in the Permian Basin in West Texas.

### **NOTE 2. Summary of Significant Accounting Policies**

**Principles of consolidation.** The consolidated financial statements include the accounts of the Company and its whollyowned and majority-owned subsidiaries since their acquisition or formation. All material intercompany balances and transactions have been eliminated. Certain reclassifications have been made to prior period amounts to conform to the current period's presentation.

Use of estimates in the preparation of financial statements. Preparation of the Company's consolidated financial statements in conformity with generally accepted accounting principles in the United States ("GAAP") requires 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 periods. Depletion of oil and gas properties and impairment of goodwill and proved and unproved oil and gas properties, in part, is determined using estimates of proved, probable and possible oil and gas reserves. There are numerous uncertainties inherent in the estimation of quantities of proved, probable and possible reserves and in the projection of future rates of production and the timing of development expenditures. Similarly, evaluations for impairment of proved and unproved oil and gas properties are subject to numerous uncertainties including, among others, estimates of future recoverable reserves and commodity price outlooks. Actual results could differ from the estimates and assumptions utilized.

*Cash and cash equivalents.* The Company's cash and cash equivalents include depository accounts held by banks and marketable securities with original issuance maturities of 90 days or less.

*Investments.* Periodically, the Company invests in commercial paper and corporate bonds with investment grade rated entities. The Company also periodically enters into time deposits with financial institutions. Commercial paper and time deposits are included in cash and cash equivalents if they have maturity dates that are less than 90 days at the date of purchase; otherwise, investments are classified as short-term investments or long-term investments in the consolidated balance sheets based on their maturity dates.

Investments are carried at amortized cost and classified as held-to-maturity as the Company has the intent and ability to hold them until they mature. The carrying values of held-to-maturity investments are adjusted for amortization of premiums and accretion of discounts over the remaining life of the investment. Income related to these investments is recorded as interest and other income in the consolidated statements of operations.

Accounts receivable. The Company's accounts receivable – trade are primarily comprised of oil and gas sales receivables, joint interest receivables and other receivables for which the Company does not require collateral security. The Company's share of oil and gas production is sold to various purchasers who must be prequalified under the Company's credit risk policies and procedures. The Company records allowances for doubtful accounts based on the age of accounts receivables and the financial condition of its purchasers. The Company's credit risk related to collecting accounts receivables is mitigated by using credit and other financial criteria to evaluate the credit standing of the entity obligated to make payment on the accounts receivable, and where appropriate, the Company obtains assurances of payment, such as a guarantee by the parent company of the counterparty or other credit support.

As of December 31, 2018 and 2017, the Company's allowance for doubtful accounts totaled \$2 million and \$1 million, respectively. The Company establishes allowances for bad debts equal to the estimable portions of accounts receivable for which failure to collect is considered probable. The Company estimates the portions of joint interest receivables for which failure to collect is probable based on percentages of joint interest receivables that are past due. The Company estimates the portions of other receivables for which failure to collect is probable based on the relevant facts and circumstances surrounding the receivable. Allowances for doubtful accounts are recorded as reductions to the carrying values of the receivables included in the Company's consolidated balance sheets and as charges to other expense in the consolidated statements of operations in the accounting periods during which failure to collect an estimable portion is determined to be probable.

*Inventories*. The Company's inventories consist of materials, supplies and commodities. The Company's materials and supplies inventory is primarily comprised of oil and gas drilling or repair items such as tubing, casing, proppant used to fracture-stimulate oil and gas wells, water, chemicals, operating supplies and ordinary maintenance materials and parts. The materials and supplies inventory is primarily acquired for use in future drilling operations or repair operations and is carried at the lower of cost or market, on a weighted average cost basis. Valuation allowances for materials and supplies inventories are recorded as reductions to the carrying values of the materials and supplies inventories in the Company's consolidated balance sheets and as charges to other expense in the consolidated statements of operations.

During the second quarter of 2018, the Company made a voluntary change in accounting policy to account for its materials and supplies inventory on a weighted average cost basis, versus using the previous accounting policy of the first-in-first-out basis. The Company made this voluntary change in accounting policy because it believes this method is preferable, as the weighted average cost basis more closely aligns with the physical flow of material and supplies inventory and is more widely utilized in the oil and gas industry. This voluntary change in accounting policy did not have a material effect on the Company's consolidated financial statements for prior periods. As such, prior periods have not been restated.

Commodity inventories are carried at the lower of cost or market, on a first-in, first-out basis. The Company's commodity inventories consist of oil, NGLs and gas volumes held in storage or as linefill in pipelines. Any valuation allowances of commodity inventories are recorded as reductions to the carrying values of the commodity inventories included in the Company's consolidated balance sheets and as charges to other expense in the consolidated statements of operations.

The components of inventories are as follows:

		As of Deco	ember 3	1,	
	2	018	20	17	
		(in millions)			
Materials and supplies (a)	\$	128	\$	134	
Commodities		114		78	
	\$	242	\$	212	

<sup>(</sup>a) As of December 31, 2018 and 2017, the Company's materials and supplies inventories were net of valuation allowances of \$5 million and \$5 million, respectively.

Investment in affiliate. In December 2018, the Company completed the sale of its pressure pumping assets to ProPetro Holding Corp. ("ProPetro") in exchange for short-term receivables and 16.6 million shares of ProPetro's common stock, representing an ownership interest in ProPetro of approximately 16 percent as of December 31, 2018. Additionally, the Company is entitled to designate a director and an independent director to ProPetro's board of directors. Based on its ownership in ProPetro and representation on the ProPetro board of directors, the Company has determined it has the ability to exercise significant influence over the operating and financial policies of ProPetro. The Company uses the fair value option to account for its equity method investment in ProPetro. The carrying value of the Company's short-term receivables and investment in ProPetro are classified as accounts receivable – due from affiliates and investment in affiliate, respectively, in the consolidated balance sheets. See Note 4 and Note 11 for additional information.

*Oil and gas properties.* The Company utilizes the successful efforts method of accounting for its oil and gas properties. Under this method, all costs associated with productive wells and nonproductive development wells are capitalized while nonproductive exploration costs and geological and geophysical expenditures are expensed. The Company capitalizes interest on expenditures for significant development projects, generally when the underlying project is sanctioned, until such projects are ready for their intended use.

The Company does not carry the costs of drilling an exploratory well as an asset in its consolidated balance sheets following the completion of drilling unless both of the following conditions are met: (i) the well has found a sufficient quantity of reserves to justify its completion as a producing well and (ii) the Company is making sufficient progress assessing the reserves and the economic and operating viability of the project.

Due to the capital-intensive nature and the geographical location of certain projects, it may take an extended period of time to evaluate the future potential of an exploration project and the economics associated with making a determination on its commercial viability. In these instances, the project's feasibility is not contingent upon price improvements or advances in technology, but

rather the Company's ongoing efforts and expenditures related to accurately predicting the hydrocarbon recoverability based on well information, gaining access to other companies' production data in the area, transportation or processing facilities and/or getting partner approval to drill additional appraisal wells. These activities are ongoing and are being pursued constantly. Consequently, the Company's assessment of suspended exploratory well costs is continuous until a decision can be made that the project has found sufficient proved reserves to sanction the project or is noncommercial and is charged to exploration and abandonments expense. See Note 6 for additional information.

The Company owns interests in 11 gas processing plants and two treating facilities. The Company is the operator of the two treating facilities and none of the gas processing plants. Two of the gas processing facilities are under construction and one of the treating facilities is not currently being used. The Company's ownership interests in the gas processing plants and treating facilities are primarily to accommodate handling the Company's gas production and thus are considered a component of the capital and operating costs of the respective fields that they service. To the extent that there is excess capacity at a plant or treating facility, the Company attempts to process third-party gas volumes for a fee to keep the plant or treating facility at capacity. All revenues and expenses derived from third-party gas volumes processed through the plants and treating facilities are reported as components of oil and gas production costs. Third-party revenues generated from the processing plants and treating facilities for the years ended December 31, 2018, 2017 and 2016 were \$78 million, \$60 million and \$41 million, respectively. Third-party expenses attributable to the processing plants and treating facilities for the same respective periods were \$36 million, \$26 million and \$24 million. The capitalized costs of the plants and treating facilities are included in proved oil and gas properties and are depleted using the unit-of-production method along with the other capitalized costs of the field that they service.

The capitalized costs of proved properties are depleted using the unit-of-production method based on proved reserves. Costs of significant nonproducing properties, wells in the process of being drilled and development projects are excluded from depletion until the related project is completed and proved reserves are established or, if unsuccessful, impairment is determined.

Proceeds from the sales of individual properties and the capitalized costs of individual properties sold or abandoned are credited and charged, respectively, to accumulated depletion, depreciation and amortization, if doing so does not materially impact the depletion rate of an amortization base. Generally, no gain or loss is recorded until an entire amortization base is sold. However, gain or loss is recorded from the sale of less than an entire amortization base if the disposition is significant enough to materially impact the depletion rate of the remaining properties in the amortization base.

The Company performs assessments of its long-lived assets to be held and used, including proved oil and gas properties accounted for under the successful efforts method of accounting, whenever events or circumstances indicate that the carrying value of those assets may not be recoverable. An impairment loss is indicated if the sum of the expected future cash flows, including vertical integrated services that are used in the development of the assets, is less than the carrying amount of the assets, including the carrying value of vertical integrated services assets. In these circumstances, the Company recognizes an impairment charge for the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets. See Note 4 for additional information.

Unproved oil and gas properties are periodically assessed for impairment on a project-by-project basis. These impairment assessments are affected by the results of exploration activities, commodity price outlooks, planned future sales or expirations of all or a portion of such projects. If the estimated future net cash flows attributable to such projects are not expected to be sufficient to fully recover the costs invested in each project, the Company will recognize an impairment charge at that time.

*Goodwill.* Goodwill is assessed for impairment whenever it is likely that events or circumstances indicate the carrying value of a reporting unit exceeds its fair value, but no less often than annually. An impairment charge is recorded for the amount by which the carrying amount exceeds the fair value of a reporting unit in the period it is determined to be impaired.

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04, "Simplifying the Test of Goodwill Impairment" ("ASU 2017-04"). ASU 2017-04 simplifies the quantitative goodwill impairment test by eliminating the requirement to calculate the implied fair value of goodwill (step 2 of the previous goodwill impairment test). Instead, a company would record an impairment charge based on the excess of a reporting unit's carrying value over its fair value (as measured in step 1 of the previous goodwill impairment test). ASU 2017-04 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted. In July 2018, the Company elected to early adopt this update. The adoption of ASU 2017-04 had no impact on the Company's consolidated financial statements.

The Company performed its annual qualitative assessment of goodwill during the third quarter of 2018 to determine whether it was more likely than not that the fair value of the Company's reporting unit was less than its carrying amount. Based on the

results of the assessment, the Company determined it was not likely that the carrying value of the Company's reporting unit exceeded its fair value.

*Other property and equipment, net.* Other property and equipment is recorded at cost. The net carrying values of other property and equipment are as follows:

	A	s of Decen	ıber 31,
	2018	8 (a)	2017 (a)
		(in millio	ons)
Land and buildings (b)	\$	380 \$	469
Proved and unproved sand properties (c)		36	468
Water infrastructure (d)		343	319
Transport and field equipment (b)(e)		50	152
Information technology		143	140
Leasehold improvements		13	20
Furniture and fixtures		15	19
Construction in progress and capitalized interest (f)		311	175
	\$	1,291	1,762

- (a) At December 31, 2018 and 2017, other property and equipment was net of accumulated depreciation of \$854 million and \$937 million, respectively.
- (b) The decrease from December 31, 2017 is primarily due to the Company's sale of its pressure pumping assets on December 31, 2018.
- (c) Includes sand mines, facilities and unproved leaseholds that primarily provide the Company with proppant for use in the fracture stimulation of oil and gas wells. The decrease from December 31, 2017 is primarily due to the Company's plan to close its sand mine located in Brady, Texas. Other property and equipment associated with the Brady, Texas sand mine was subject to accelerated depreciation to reduce such property and equipment to its net realizable value by its expected closure in May 2019. The accelerated depreciation associated with the planned closure is recorded to other expense in the consolidated statements of operations. See Note 3 for additional information.
- (d) Includes pipeline infrastructure costs and water supply wells.
- (e) Includes vehicles and well servicing equipment, including pulling units, fracture stimulation tanks, water transport trucks, hot oilers, construction equipment and fishing tools that provide well services on Company-operated properties.
- (f) Includes capitalized costs and capitalized interest on other property and equipment not yet placed in service as of December 31, 2018 and 2017. Construction in progress, including related capitalized interest, associated with the Company's new corporate headquarters was \$217 million and \$57 million as of December 31, 2018 and 2017, respectively. See Note 10 for additional information.

Other property and equipment is depreciated over its estimated useful life on a straight-line basis. Buildings are generally depreciated over 20 to 39 years. Equipment, vehicles, furniture and fixtures and information technology assets are generally depreciated over two to 15 years. Water infrastructure is generally depreciated over ten to 50 years. Leasehold improvements are amortized over the lesser of their estimated useful lives or the underlying terms of the associated leases.

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If such assets are considered to be impaired, the impairment to be recorded is measured by the amount by which the carrying amount of the asset exceeds its estimated fair value. The estimated fair value is determined using either a discounted future cash flow model or another appropriate fair value method.

Asset retirement obligations. The Company records a liability for the fair value of an asset retirement obligation in the period in which the associated asset is acquired or placed into service, if a reasonable estimate of fair value can be made. Asset retirement obligations are generally capitalized as part of the carrying value of the long-lived asset to which it relates. Conditional asset retirement obligations meet the definition of liabilities and are recorded when incurred and when fair value can be reasonably estimated.

The Company records the current and noncurrent portions of asset retirement obligations in other current liabilities and other liabilities, respectively, in the consolidated balance sheets and expenditures are classified as cash used in operating activities in the consolidated statements of cash flows. See Note 9 for additional information.

*Treasury stock.* Treasury stock purchases are recorded at cost. Upon reissuance, the cost of treasury shares held is reduced by the average purchase price per share of the aggregate treasury shares held.

*Issuance of common stock.* In January and June of 2016, the Company issued 13.8 million and 6.0 million shares of its common stock, respectively, and realized cash proceeds of \$1.6 billion and \$937 million, respectively, net of associated underwriting and offering expenses.

Revenue recognition. The Company recognizes revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company adopted ASU No. 2014-09, Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers" ("ASC 606"), which supersedes the revenue recognition requirements in ASC 605, "Revenue Recognition" ("ASC 605"), on January 1, 2018 using the modified retrospective transition method. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with historic accounting under ASC 605. The Company completed a detailed review of its revenue contracts in 2017, which represented all of the Company's revenue streams including oil, NGL and gas sales and sales of purchased oil and gas, in order to adopt the new standard beginning on January 1, 2018. The Company did not record a change to its opening retained earnings as of January 1, 2018 as there was no material change to the timing or pattern of revenue recognition due to the adoption of ASC 606.

Prior to the adoption of ASC 606 on January 1, 2018, the Company recognized revenue when it was realized or realizable and earned. Revenues were considered realized or realizable and earned when: (i) persuasive evidence of an arrangement existed, (ii) delivery occurred or services had been rendered, (iii) the seller's price to the buyer was fixed or determinable and (iv) collectability was reasonably assured.

The adoption of ASC 606 as of January 1, 2018 impacted the Company's results of operations as follows:

		Year E	nded E	December 3	31, 20	)18
	As Re	ported	(W	SC 605 Without option of SC 606)		Effect of Change
			(in	millions)		
Revenues and other income:						
Oil and gas	\$	4,991	\$	4,784	\$	207
Costs and expenses:						
Oil and gas production	\$	855	\$	648	\$	207

Changes in oil and gas revenues and oil and gas production costs (specifically gathering, processing and transportation costs) are due to the conclusion under the control model in ASC 606 that the third-party processor or transporter is only providing gas processing or transportation services and that the Company remains the principal owner of the commodity until sold to the ultimate purchaser. This is a change from ASC 605 where the Company historically recorded gas processing fees as a reduction of revenue recognized by the Company, as these fees were considered necessary to separate the wet gas stream into its sellable components (i.e., dry gas and individual NGL components). Under ASC 605, third-party processing and transportation companies were determined to have control of the commodities being processed and transported. As a result of adopting ASC 606, the Company has modified its presentation of revenues and expenses for these arrangements. Revenues related to these agreements are now presented on a gross basis for amounts expected to be received from third-party purchasers through the marketing process. Gathering, processing and transportation expenses related to these agreements, incurred prior to the transfer of control to the purchaser, are now presented as oil and gas production costs. See Note 13 for additional information.

The Company enters into purchase transactions with third parties and separate sale transactions with third parties to diversify a portion of the Company's West Texas Intermediate oil ("WTI") sales to a Gulf Coast or export market price and to satisfy unused gas pipeline capacity commitments. Revenues and expenses from these transactions are presented on a gross basis as the Company acts as a principal in the transaction by assuming the risk and rewards of ownership, including credit risk, of the commodities purchased and assuming the responsibility to deliver the commodities sold. Transportation costs associated with purchases and

sales of third-party oil and gas are presented on a net basis in purchased oil and gas expense. Firm transportation payments on excess pipeline capacity are recorded as other expense in the consolidated statements of operations. See Note 15 for additional information

**Derivatives.** All of the Company's derivatives are accounted for as non-hedge derivatives and are recorded at estimated fair value in the consolidated balance sheets. All changes in the fair values of its derivative contracts are recorded as gains or losses in the earnings of the periods in which they occur. The Company enters into derivatives under master netting arrangements, which, in an event of default, allows the Company to offset payables to and receivables from the defaulting counterparty. The Company classifies the fair value amounts of derivative assets and liabilities executed under master netting arrangements as net current or noncurrent derivative assets or net current or noncurrent derivative liabilities, whichever the case may be, by commodity and counterparty.

Net derivative asset values are determined, in part, by utilization of the derivative counterparties' credit-adjusted risk-free rate curves and net derivative liabilities are determined, in part, by utilization of the Company's credit-adjusted risk-free rate curve. The credit-adjusted risk-free rate curves for the Company and the counterparties are based on their independent market-quoted credit default swap rate curves plus the United States Treasury Bill yield curve as of the valuation date.

The Company's credit risk related to derivatives is a counterparty's failure to perform under derivative contracts owed to the Company. The Company uses credit and other financial criteria to evaluate the credit standing of, and to select, counterparties to its derivative instruments. Although the Company does not obtain collateral or otherwise secure the fair value of its derivative instruments, associated credit risk is mitigated by the Company's credit risk policies and procedures.

The Company has entered into International Swap Dealers Association Master Agreements ("ISDA Agreements") with each of its derivative counterparties. The terms of the ISDA Agreements provide the Company and the counterparties with rights of set off upon the occurrence of defined acts of default by either the Company or a counterparty to a derivative, whereby the party not in default may set off all derivative liabilities owed to the defaulting party against all derivative asset receivables from the defaulting party. See Note 5 for additional information.

*Income taxes.* The provision for income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and net operating loss and tax credit carryforwards. The amount of deferred taxes on these temporary differences is determined using the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, as applicable, based on tax rates and laws in the respective tax jurisdiction enacted as of the balance sheet date.

The Company reviews its deferred tax assets for recoverability and establishes a valuation allowance based on projected future taxable income, applicable tax strategies and the expected timing of the reversals of existing temporary differences. A valuation allowance is provided when it is more likely than not (likelihood of greater than 50 percent) that some portion or all of the deferred tax assets will not be realized.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. If all or a portion of the unrecognized tax benefit is sustained upon examination by the taxing authorities, the tax benefit will be recognized as a reduction to the Company's deferred tax liability and will affect the Company's effective tax rate in the period it is recognized. See Note 16 for additional information.

The Company records any tax-related interest charges as interest expense and any tax-related penalties as other expense in the consolidated statements of operations.

Stock-based compensation. Stock-based compensation expense for restricted stock, restricted stock units and performance units expected to be settled in the Company's common stock ("Equity Awards") is measured at the grant date or modification date, as applicable, using the fair value of the award, and is recorded, net of estimated forfeitures, on a straight line basis over the vesting period of the respective award. The fair value of Equity Awards, except performance unit awards, is determined on the grant date or modification date, as applicable, using the prior day's closing stock price. The fair value of performance unit awards is determined using the Monte Carlo simulation model.

Equity Awards are net settled by withholding shares of the Company's common stock to satisfy income tax withholding payments due upon vesting. Remaining vested shares are remitted to individual employee brokerage accounts. Shares to be delivered upon vesting of Equity Awards are made available from authorized, but unissued shares or shares held as treasury stock.

Restricted stock awards expected to be settled in cash on their vesting dates, rather than in common stock ("Liability Awards"), are classified as accounts payable – due to affiliates on the consolidated balance sheets. The fair value of Liability Awards on the grant date is determined using the prior day's closing stock price. Liability Awards are marked to fair value as of each balance sheet date using the closing stock price on the balance sheet date. Changes in the fair value of Liability Awards are recorded as increases or decreases to stock-based compensation expense.

Equity Awards and Liability awards participate in dividends during vesting periods and generally vest over three years.

**Segments.** Based upon how the Company is organized and managed, the Company has one reportable operating segment, which is oil and gas development, exploration and production. The Company considers its vertical integration services as ancillary to its oil and gas development, exploration and producing activities and manages these services to support such activities. In addition, the Company has a single, company-wide management team that allocates capital resources to maximize profitability and measures financial performance as a single enterprise.

*New accounting pronouncements.* In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" ("ASC 842"). ASC 842 requires lessees to recognize lease assets and lease liabilities for those leases currently classified as operating leases and makes certain changes to the accounting for lease expenses. This standard will be effective for the Company for interim periods beginning January 1, 2019. ASC 842 should be applied using a modified retrospective approach. The Company will elect to apply transition guidance under ASU 2018-11, "Leases (Topic 842) Targeted Improvements," in which ASC 842 is applied at the adoption date, while the comparative periods will continue to be reported in accordance with historic accounting under ASC 840, "Leases." This standard does not apply to leases to explore for or use minerals, oil or gas resources, including the right to explore for those natural resources and rights to use the land in which those natural resources are contained.

Based on its current commitments, the Company will be required to recognize lease assets and liabilities related to drilling rig commitments, certain equipment rentals and leases, certain surface use agreements and potentially other arrangements. The Company plans to apply certain practical expedients provided in ASC 842 that, among other things, allow entities to not reassess contracts that commenced prior to adoption and to not recognize right of use assets and lease liabilities related to short-term leases. The adoption of ASC 842 will have a material impact on the Company's consolidated balance sheets, but will not have an impact on the consolidated statements of operations or the consolidated statements of cash flows. In preparation for the adoption of the standard, the Company has developed internal controls applicable to the process used to determine financial information required to be recognized and disclosed.

Upon adoption of ASC 842, the Company will recognize lease assets and lease liabilities in the range of \$300 million to \$350 million each, as of January 1, 2019. The Company will also derecognize \$217 million of other property and equipment and \$219 million of build-to-suit lease liability costs associated with the construction of the Company's new corporate headquarters as this contract will no longer qualify for capitalization. The contract for the Company's new corporate headquarters will be evaluated under ASC 842 upon lease commencement, which is expected to occur during the second half of 2019.

### NOTE 3. Acquisitions, Divestitures and Decommissioning Activities

*Acquisitions.* During 2018, 2017 and 2016, the Company spent a total of \$65 million, \$136 million and \$446 million, respectively, to acquire primarily undeveloped acreage for future exploitation and exploration activities in the Spraberry/Wolfcamp field of the Permian Basin.

As part of the the 2016 acquisitions, the Company acquired approximately 28,000 net acres in the Permian Basin, with net production of approximately 1,400 barrels of oil equivalent per day ("BOEPD"), from an unaffiliated third party for \$428 million. The acquisition was accounted for as a business combination.

The allocation of the acquisition price to the assets acquired and the liabilities assumed based on their fair value at the acquisition date (in millions) is as follows:

Assets acquired:	
Proved properties	\$ 79
Unproved properties	347
Other property and equipment	5
Liabilities assumed:	
Asset retirement obligations	(2)
Other liabilities	(1)
Net assets acquired	\$ 428

The fair value measurements of the net assets acquired in 2016 are based on inputs that are not observable in the market and, therefore, represent Level 3 inputs in the fair value hierarchy (see Note 4 for additional information). The Company calculated the fair value of the acquired proved properties and asset retirement obligations using a discounted future cash flow model that utilizes management's estimates of (i) proved reserves, (ii) forecasted production rates, (iii) future operating, development and plugging and abandonment costs, (iv) future commodity prices and (v) a discount rate of ten percent for proved properties and seven percent for asset retirement obligations. The Company calculated the fair value of the acquired unproved properties based on the average price per acre in comparable market transactions. The operating results attributable to the acquired assets and liabilities assumed are included in the Company's consolidated statements of operations since the date of acquisition. In connection with the acquisition, the Company incurred acquisition related costs (primarily consulting, advisory and legal fees) of \$1 million.

### Divestitures.

The Company's significant divestitures are as follows:

- In December 2018, the Company completed the sale of its pressure pumping assets to ProPetro in exchange for total consideration of \$282 million, comprised of \$110 million of short-term receivables to be paid by ProPetro during the first quarter of 2019 and 16.6 million shares of ProPetro's common stock that had a fair value of \$172 million. The total consideration is a noncash investing activity as of December 31, 2018. The Company recorded a gain of \$30 million, employee-related charges of \$19 million, contract termination charges of \$13 million and other divestiture-related charges of \$6 million associated with the sale. Additionally, the Company reduced the carrying value of goodwill by \$3 million, reflecting the portion of the Company's goodwill related to the assets sold. See Note 2 and Note 11 for additional information.
- In December 2018, the Company completed the sale of approximately 2,900 net acres in the Sinor Nest (Lower Wilcox) oil field in South Texas to an unaffiliated third party for net cash proceeds \$105 million, after normal closing adjustments. The Company recorded a gain of \$54 million associated with the sale. Additionally, the Company reduced the carrying value of goodwill by \$1 million, reflecting the portion of the Company's goodwill related to the assets sold.
- In August 2018, the Company completed the sale of its assets in the West Panhandle gas and liquids field to an unaffiliated third party for net cash proceeds of \$170 million, after normal closing adjustments. The assets sold represent all of the Company's interests in the field, including all of its producing wells and the associated infrastructure. The Company recorded a gain of \$127 million and employee-related charges of \$7 million associated with the sale. Additionally, the Company reduced the carrying value of goodwill by \$1 million, reflecting the portion of the Company's goodwill related to the assets sold.
- In July 2018, the Company completed the sale of its gas field assets in the Raton Basin to an unaffiliated third party for net cash proceeds of \$54 million, after normal closing adjustments. The Company recorded a noncash impairment charge of \$77 million in June 2018 to reduce the carrying value of its Raton Basin assets to their estimated fair value less costs to sell as the assets were considered held for sale. The Company recorded a gain of \$2 million associated with this divestiture. The Company also recorded other divestiture-related charges of \$117 million, including \$111 million of deficiency charges related to certain firm transportation contracts retained by the Company and employee-related charges of \$6 million. Additionally, the Company reduced the carrying value of goodwill by \$1 million, reflecting the portion of the Company's goodwill related to the assets sold.

- In April 2018, the Company completed the sale of approximately 10,200 net acres in the West Eagle Ford Shale gas and liquids field to an unaffiliated third party for net cash proceeds of \$100 million, after normal closing adjustments. The Company recorded a gain of \$75 million associated with the sale. Additionally, the Company reduced the carrying value of goodwill by \$1 million, reflecting the portion of the Company's goodwill related to the assets sold.
- In April 2017, the Company completed the sale of approximately 20,500 acres in the Martin County region of the Permian Basin, with net production of approximately 1,500 BOEPD, to an unaffiliated third party for cash proceeds of \$264 million. The sale resulted in a gain of \$194 million. In conjunction with the divestiture, the Company reduced the carrying value of goodwill by \$2 million, reflecting the portion of the Company's goodwill related to the assets sold.
- Other. During 2018, 2017 and 2016, the Company sold other proved and unproved properties, inventory and other property and equipment and recorded net gains of \$1 million, \$14 million and \$2 million, respectively. The net gain of \$14 million for 2017 is primarily related to the sale of nonstrategic proved and unproved properties in the Permian Basin for cash proceeds of \$77 million.

**Decommissioning activities.** In November 2018, the Company announced plans to close its sand mine located in Brady, Texas and transition its proppant supply requirements to West Texas sand sources. During 2018, the Company recorded \$443 million of accelerated depreciation and \$7 million of employee-related charges associated with the pending shutdown.

**Divestiture-related and decommissioning-related charges.** Divestiture-related charges, including employee-related charges, contract termination charges and other costs resulting from the Company's divestitures, are recorded as other expense in the statements of operations and as other noncash operating activities in the consolidated statements of cash flows. Obligations associated with employee-related charges are classified as accounts payable - due to affiliates in the consolidated balance sheets. Obligations associated with contract termination charges are classified as other current or noncurrent liabilities in the consolidated balance sheets.

Divestiture-related and decommissioning-related obligations activity is as follows:

	Year Ended December 31, 2018					
	(in 1	millions)				
Employee-related charges:						
Beginning employee-related obligations	\$					
Additions		39				
Cash payments		(12)				
Ending employee-related obligations		27				
Contract termination charges:						
Beginning contract termination obligations		_				
Additions		124				
Cash payments		(13)				
Ending contract termination obligations (a)		111				
Total divestiture-related and decommissioning-related obligations	\$	138				

<sup>(</sup>a) Includes \$98 million of deficiency charges related to certain firm transportation contracts associated with the divestiture of the Company's gas field assets in the Raton Basin. These obligations were retained by the Company and are expected to be paid as follows: \$42 million in 2019, \$44 million in 2020 and \$12 million in 2021.

### NOTE 4. Fair Value Measurements

The Company determines fair value based on the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurements are based upon inputs that market participants use in pricing an asset or liability, which are characterized according to a hierarchy that prioritizes those inputs based on the degree to which they are observable. Observable inputs represent market data obtained from independent sources, whereas unobservable inputs reflect a company's own market assumptions, which are used if observable inputs are not reasonably available without undue cost and effort. The fair value input hierarchy level to which an asset or liability measurement in its entirety falls is determined based on the lowest level input that is significant to the measurement in its entirety.

The three input levels of the fair value hierarchy are as follows:

- Level 1 quoted prices for identical assets or liabilities in active markets.
- Level 2 quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g. interest rates) and inputs derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 unobservable inputs for the asset or liability, typically reflecting management's estimate of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore, determined using model-based techniques, including discounted cash flow models.

Assets and liabilities measured at fair value on a recurring basis. Assets and liabilities measured at fair value on a recurring basis are as follows:

Fair Value Measurements at December 31, 2018 Using										
Quoted Prices in Active Markets for Identical Assets (Level 1)  Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		Value as of ember 31, 2018						
			(in mil							
\$		\$	52	\$ —	\$	52				
	82		_	_		82				
	_		172	_		172				
	82		224			306				
	_		27	_		27				
			27			27				
\$	82	\$	197	\$ —	\$	279				
	Quoted P Active M for Identical (Leve	Quoted Prices in Active Markets for Identical Assets (Level 1)  \$	Quoted Prices in Active Markets for Identical Assets (Level 1)  \$ - \$ 82	Quoted Prices in Active Markets for Identical Assets (Level 1)         Significant Other Observable Inputs (Level 2)           \$	Quoted Prices in Active Markets for Identical Assets (Level 1)  Significant Other Observable Inputs (Level 3)  (in millions)  \$ - \$ 52 \$ - \$  82 172 - \$  82 224 - \$  - 27 - \$  27 - \$  27 - \$  - 27 - \$	Quoted Prices in Active Markets for Identical Assets (Level 1)         Significant Other Observable Inputs (Level 2)         Significant Unobservable Inputs (Level 3)         Fair Decomposition of the F				

Eair Value Massurements at December 21, 2017 Heiner

	Fair Value N	er 31, 2017 Using				
	Quoted Prices in Active Markets for Identical Assets (Level 1) Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)	Decei	alue as of mber 31,	
Assets:						
Commodity derivatives	\$	_	\$ 11	\$ —	\$	11
Deferred compensation plan assets		95	_	_		95
Total assets		95	11	_		106
Liabilities:						
Commodity derivatives		_	255	_		255
Total liabilities		_	255			255
Total recurring fair value measurements	\$	95	\$ (244)	\$ —	\$	(149)

Commodity derivatives. The Company's commodity derivatives represent oil, NGL and gas swap contracts, collar contracts and collar contracts with short puts. The asset and liability measurements for the Company's commodity derivative contracts are determined using Level 2 inputs. The Company utilizes discounted cash flow and option-pricing models for valuing its commodity derivatives using inputs that include (i) the contracted notional volumes, (ii) independent active market price quotes, (iii) the applicable estimated credit-adjusted risk-free rate yield curve and (iv) the implied rate of volatility inherent in the collar contracts and collar contracts with short puts, which is based on active and independent market-quoted volatility factors.

Deferred compensation plan assets. The Company's deferred compensation plan assets include investments in equity and mutual fund securities that are actively traded on major exchanges. These investments are measured based on observable prices on major exchanges. The significant inputs to these asset exchange values represented Level 1 independent active exchange market price inputs.

*Investment in affiliate*. The Company elected the fair value option for measuring its equity method investment in ProPetro. The fair value of its investment in ProPetro is determined using Level 2 inputs, including the quoted market price for the stock as adjusted to reflect a value discount due to the shares not being able to be sold until mid-2019. See Note 11 for additional information.

Assets and liabilities measured at fair value on a nonrecurring basis. Assets and liabilities measured at fair value on a nonrecurring basis are subject to fair value adjustments in certain circumstances. The Company assesses recoverability of the carrying amount of certain assets and liabilities whenever events or changes in circumstances indicate the carrying amount of an asset or liability may not be recoverable. These assets and liabilities can include inventories, proved and unproved oil and gas properties and other long-lived assets that are written down to fair value when they are impaired or held for sale.

Proved oil and gas properties. As a result of the Company's proved property impairment assessments, the Company recorded noncash impairment charges to reduce the carrying values of its Raton Basin gas field assets during the year ended December 31, 2017 and the West Panhandle gas and liquids field during the year ended December 31, 2016. Impairment charges for proved oil and gas properties are recorded as impairment of oil and gas properties in the consolidated statements of operations.

The Company calculated the fair values of the Raton Basin assets and West Panhandle field proved properties using a discounted cash flow model. Significant Level 3 assumptions associated with the calculation of discounted future cash flows included management's longer-term commodity price outlooks ("Management's Price Outlooks") and management's outlooks for (i) production, (ii) capital expenditures, (iii) production costs and (iv) estimated proved reserves and risk-adjusted probable reserves. Management's Price Outlooks are developed based on third-party longer-term commodity futures price outlooks as of each measurement date. The expected future net cash flows were discounted using an annual rate of ten percent to determine fair value.

The fair value and fair value adjustments for proved properties, as well as the average oil price per barrel ("Bbl") and gas price per British thermal unit ("MMBtu") utilized in the respective Management's Price Outlooks are as follows:

			Fair Value		ir Value	Management's Price Outlook						
					justment		Oil	Gas				
			(in mi	llions)								
Raton Basin	March 2017	\$	186	\$	(285)	\$	53.65	\$	3.00			
West Panhandle	March 2016	\$	33	\$	(32)	\$	49.77	\$	3.24			

Unproved oil and gas properties. During 2016, the Company recorded a noncash impairment charge of \$32 million to write-off the carrying value of its unproved royalty acreage in Alaska as a result of the operator curtailing operations in the area and Management's Price Outlooks. The impairment charges for unproved oil and gas properties are recorded as exploration and abandonments in the consolidated statements of operations.

Sale of Raton Basin assets. In June 2018, the Company recognized impairment charges of \$77 million to reduce the carrying value of its Raton Basin gas field assets to the agreed upon sales price for these assets, which were sold in July 2018. The impairment charges included \$65 million attributable to proved oil and gas properties and \$12 million of other property and equipment. These impairment charges are recorded as impairment of oil and gas properties in the consolidated statement of operations. The Company also recorded other divestiture-related charges of \$111 million attributable to deficiency charges related to certain firm transportation contracts retained by the Company. The fair value of these contracts was determined using Level 2 inputs, including an annual discount rate of 4.4 percent, to discount the expected future cash flows. See Note 3 for additional information.

*Financial instruments not carried at fair value.* Carrying values and fair values of financial instruments that are not carried at fair value in the consolidated balance sheets are as follows:

	<b>December 31, 2018</b>				December	r 31,	1, 2017	
	Carrying Value		Fair Value		Carrying Value		Fair Value	
			(in mi	llion	s)			
Assets:								
Cash and cash equivalents:								
Cash (a)	\$ 775		775	\$	846	\$	846	
Time deposits (a)	50		50		50		50	
Total	\$ 825	\$	825	\$	896	\$	896	
Short-term investments:								
Commercial paper (b)	\$ 53		53	\$	124		124	
Corporate bonds (c)	290		288		642		640	
Time deposits (b)	100		100		447		447	
Total	\$ 443	\$	441	\$	1,213	\$	1,211	
Long-term investments:								
Corporate bonds (c)	\$ 125	\$	125	\$	66	\$	66	
Total	\$ 125	\$	125	\$	66	\$	66	
Liabilities:								
Current portion of long-term debt (d)	\$ _	\$	_	\$	449	\$	457	
Long-term debt (d)	\$ 2,284	\$	2,374	\$	2,283	\$	2,479	

<sup>(</sup>a) Fair value approximates carrying value due to the short-term nature of the instruments.

<sup>(</sup>b) Fair value is determined using Level 2 inputs.

<sup>(</sup>c) Fair value is determined using Level 1 inputs.

<sup>(</sup>d) Fair value is determined using Level 2 inputs. The Company's senior notes are quoted but not actively traded on major exchanges; therefore, fair value is based on periodic values as quoted on major exchanges.

The Company has other financial instruments consisting primarily of receivables, payables and other current assets and liabilities that approximate fair value due to the nature of the instrument and their relatively short maturities. Non-financial assets and liabilities initially measured at fair value include assets acquired and liabilities assumed in a business combination, goodwill and asset retirement obligations.

### **NOTE 5. Derivative Financial Instruments**

The Company utilizes commodity swap contracts, option contracts, collar contracts, collar contracts with short puts and basis swap contracts to (i) reduce the effect of price volatility on the commodities the Company produces and sells or consumes, (ii) support the Company's annual capital budgeting and expenditure plans and (iii) reduce commodity price risk associated with certain capital projects. The Company also, from time to time, utilizes interest rate contracts to reduce the effect of interest rate volatility on the Company's indebtedness.

Periodically, the Company may pay a premium to enter into commodity contracts. Premiums paid, if any, have been nominal in relation to the value of the underlying asset in the contract. The Company recognizes the nominal premium payments as an increase to the value of the derivative assets when paid.

Oil production derivatives. The Company sells its oil production at the lease and the sales contracts governing such oil production are tied directly to, or are correlated with, New York Mercantile Exchange ("NYMEX") West Texas Intermediate ("WTI") oil prices. The Company also enters into pipeline capacity commitments in order to secure available oil transportation capacity from its areas of production to the Gulf Coast. In order to diversify the oil price it receives, the Company (i) enters into oil purchase transactions with third parties in its areas of production that are consistent with the oil prices that the Company receives at the lease, adjusted for transportation costs to the point of purchase, (ii) transports the purchased oil using its pipeline capacity to the Gulf Coast, and (iii) enters into third party sale transactions to sell the oil into the Gulf Coast refinery or international export markets at prices that are highly correlated with Brent oil prices. As a result, the Company will generally use Brent derivative contracts to manage future oil price volatility.

Volumes per day associated with outstanding oil derivative contracts as of December 31, 2018 and the weighted average oil prices for those contracts are as follows:

	2019									
		First uarter	-	econd iarter	(	Third Quarter		Fourth Quarter		
Brent collar contracts with short puts:										
Volume per day (Bbl)		15,000		15,000		15,000		15,000		
Price per Bbl:										
Ceiling	\$	89.90	\$	89.90	\$	89.90	\$	89.90		
Floor	\$	75.00	\$	75.00	\$	75.00	\$	75.00		
Short put	\$	65.00	\$	65.00	\$	65.00	\$	65.00		

*NGL production derivatives.* All material physical sales contracts governing the Company's NGL production are tied directly or indirectly to Mont Belvieu, Texas NGL component product prices. The Company uses derivative contracts to manage the NGL component product price volatility. As of December 31, 2018 the Company did not have any NGL derivative contracts outstanding.

Gas production derivatives. All material physical sales contracts governing the Company's gas production are tied directly or indirectly to NYMEX Henry Hub ("HH") gas prices or regional index prices where the gas is sold. The Company uses derivative contracts to manage gas price volatility and basis swap contracts to reduce basis risk between HH prices and actual index prices at which the gas is sold.

Volumes per day associated with outstanding gas derivative contracts as of December 31, 2018 and the weighted average gas prices for those contracts are as follows:

	2019							
	First Quarter		Second Quarter		Third Quarter			Fourth Quarter
Swap contracts:								
Volume per day (MMBtu)		102,622		50,000		50,000		16,848
Price per MMBtu	\$	3.39	\$	2.94	\$	2.94	\$	2.94
Basis swap contracts:								
Permian Basin index swap volume per day (MMBtu) (a)		57,378		60,000		60,000		_
Price differential (\$/MMBtu)	\$	(1.47)	\$	(1.46)	\$	(1.46)	\$	_
Southern California index swap volume per day (MMBtu) (b)		100,000		80,000		80,000		80,000
Price differential (\$/MMBtu)	\$	0.40	\$	0.31	\$	0.31	\$	0.31
Call option contracts sold:								
Volume per day (MMBtu) (c)		50,000		_		_		_
Price per MMBtu	\$	3.93	\$	_	\$	_	\$	_

<sup>(</sup>a) The referenced basis swap contracts fix the basis differentials between the index price at which the Company sells its Permian Basin gas and the HH price used in swap contracts.

Fair value. The fair value of derivative financial instruments not designated as hedging instruments is as follows:

Fair Value of Derivative Instruments as of December 31, 2018

Consolidated Balance Sheet Fair Type Location Value			the ated	Preser Cons	air Value nted in the solidated nce Sheet	
<u> </u>			(in m	illions)		
Derivatives - current	\$	59	\$	(7)	\$	52
					\$	52
Derivatives - current	\$	34	\$	(7)	\$	27
					\$	27
	Balance Sheet Location  Derivatives - current	Balance Sheet Location  Derivatives - current \$	Balance Sheet Value  Derivatives - current \$ 59	Balance Sheet Location Fair Value Balance State (in means to be sheet Location State	Balance Sheet Location Fair Value Consolidated Balance Sheet (in millions)  Derivatives - current \$ 59 \$ (7)	Balance Sheet Location Fair Value Balance Sheet Balance Sheet (in millions)  Derivatives - current \$ 59 \$ (7) \$

<sup>(</sup>b) The referenced basis swap contracts fix the basis differentials between Permian Basin index prices and southern California index prices for Permian Basin gas forecasted for sale in Arizona and southern California.

<sup>(</sup>c) The premium associated with selling these call option contracts was utilized to improve the swap contract prices for April through October 2019 swap volumes.

Fair Value of Derivative Instruments as of December 31, 2017

Туре	Consolidated Balance Sheet Location	Fair Value		Gross Amounts Offset in the Consolidated Balance Sheet	Net Fair Value Presented in the Consolidated Balance Sheet
				(in millions)	
<b>Asset Derivatives:</b>					
Commodity price derivatives	Derivatives - current	\$ 13	\$	(2)	\$ 11
Commodity price derivatives	Derivatives - noncurrent	\$ 3	\$	(3)	_
					\$ 11
<b>Liability Derivatives:</b>					
Commodity price derivatives	Derivatives - current	\$ 234	\$	(2)	\$ 232
Commodity price derivatives	Derivatives - noncurrent	\$ 26	\$	(3)	23
					\$ 255

Gains (losses) recorded on derivative contracts are as follows:

		Amount of Gain/(Loss) Recorded as Earnings on Derivatives								
Derivatives Not Designated as Hedging Instruments	Location of Gain/(Loss) Recorded as Earnings	Year Ended December 31,								
	on Derivatives		2018		2017	2016				
					(in	millions)				
Commodity price derivatives	Derivative losses, net	\$	(292)	\$	(99)	\$	(174)			
Interest rate derivatives	Derivative losses, net		_		(1)		13			
		\$	(292)	\$	(100)	\$	(161)			

Net derivative assets (liabilities) by counterparty are as follows:

	December	31, 2018
	Net Assets (	Liabilities)
	(in mil	llions)
Macquarie Bank	\$	(27)
J Aron & Company		2
Bank of Montreal		2
JP Morgan Chase		2
Societe Generale		46
	\$	25

See Note 2 for additional information.

### **NOTE 6. Exploratory Well Costs**

The Company capitalizes exploratory well and project costs until a determination is made that the well or project has either found proved reserves, is impaired or is sold. The Company's capitalized exploratory well and project costs are classified as proved properties in the consolidated balance sheets. If the exploratory well or project is determined to be impaired, the impaired costs are recorded as exploration and abandonments expense.

Capitalized exploratory well project activity is as follows:

	Year Ended December 31,																					
	2018		2018		2018		2018		2018		2018		2018		2018		2017		18 20			2016
			(in	millions)																		
Beginning capitalized exploratory well costs	\$	505	\$	323	\$	306																
Additions to exploratory well costs pending the determination of proved reserves		2,585		1,956		1,387																
Reclassification due to determination of proved reserves		(2,557)		(1,764)		(1,369)																
Disposition of assets		(1)		_		_																
Exploratory well costs charged to exploration and abandonment expense		(23)		(10)		(1)																
Ending capitalized exploratory well costs	\$	509	\$	505	\$	323																
	_		_		_																	

Aging of capitalized exploratory costs and the number of projects for which exploratory well costs have been capitalized for a period greater than one year, based on the date drilling was completed are as follows:

	As of December 31,					
	- 2	2018		2017		2016
		(in mil	lions,	except well	counts	)
Capitalized exploratory well costs that have been suspended:						
One year or less	\$	509	\$	493	\$	318
More than one year		_		12		5
	\$	509	\$	505	\$	323
Number of projects with exploratory well costs that have been suspended for a period greater than one year				7		3

### NOTE 7. Long-term Debt and Interest Expense

The components of long-term debt, including the effects of issuance costs and issuance discounts, are as follows:

	Dec	ember 31,
	2018	2017
	(in	millions)
Outstanding debt principal balances:		
6.875% senior notes due 2018 (a)	\$ -	<b>-</b> \$ 450
7.50% senior notes due 2020	45	50 450
3.45% senior notes due 2021	50	500
3.95% senior notes due 2022	60	00 600
4.45% senior notes due 2026	50	500
7.20% senior notes due 2028	25	50 250
	2,30	2,750
Issuance costs and discounts	(1	(18)
Long-term debt	2,28	2,732
Less current portion of long-term debt (a)	-	_ 449
Long-term debt	\$ 2,28	\$4 \$ 2,283

<sup>(</sup>a) The 6.875% senior notes, net of \$106 thousand of unamortized issuance costs and discounts, are classified as current in the consolidated balance sheet as of December 31, 2017.

*Credit facility.* During October 2018, the Company entered into a Credit Agreement dated as of October 24, 2018 (the "Credit Facility") with a syndicate of financial institutions (the "Syndicate"), primarily to extend the maturity of the Credit Facility from August 2020 to October 2023, while maintaining aggregate loan commitments of \$1.5 billion. The Company accounted for the entry into the Credit Facility as a modification of the prior agreement and capitalized the debt issuance costs along with those

unamortized issuance costs that remained from the issuance of the prior agreement. As of December 31, 2018, the Company had no outstanding borrowings under the Credit Facility.

Borrowings under the Credit Facility may be in the form of revolving loans or swing line loans. Revolving loans represent loans made ratably by the Syndicate in accordance with their respective commitments under the Credit Facility and bear interest, at the option of the Company, based on (a) a rate per annum equal to the higher of the prime rate announced from time to time by Wells Fargo Bank, National Association or the weighted average of the rates on overnight federal funds transactions with members of the Federal Reserve System during the last preceding business day plus 0.5 percent plus a defined alternate base rate spread margin, which is currently 0.25 percent based upon the Company's debt rating or (b) a base Eurodollar rate, substantially equal to LIBOR, plus a margin (the "Applicable Margin"), which is currently 1.25 percent and is also determined by the Company's debt rating. Swing line loans represent loans made by a subset of the lenders in the Syndicate and may not exceed \$150 million. Swing line loans under the Credit Facility bear interest at a rate per annum equal to the "ASK" rate for federal funds periodically published by the Dow Jones Market Service plus the Applicable Margin plus 0.125 percent. The Company also pays commitment fees on undrawn amounts under the Credit Facility that are determined by the Company's debt rating (currently 0.15 percent). Borrowings under the Credit Facility are general unsecured obligations.

The Credit Facility requires the maintenance of a ratio of total debt to book capitalization, subject to certain adjustments, not to exceed 0.65 to 1.0. As of December 31, 2018, the Company was in compliance with all of its debt covenants.

*Senior notes.* The Company's 6.875% senior notes (the "6.875% Senior Notes") and 6.65% senior notes (the "6.65% Senior Notes"), with debt principal balances of \$450 million and \$485 million, respectively, matured and were repaid in May 2018 and March 2017, respectively. The Company funded the repayments with cash on hand. The 6.875% Senior Notes were classified as current in the consolidated balance sheet as of December 31, 2017.

The Company's senior notes are general unsecured obligations ranking equally in right of payment with all other senior unsecured indebtedness of the Company and are senior in right of payment to all existing and future subordinated indebtedness of the Company. The Company is a holding company that conducts all of its operations through subsidiaries; consequently, the senior notes are structurally subordinated to all obligations of its subsidiaries. Interest on the Company's senior notes is payable semiannually.

Principal payments scheduled to be made on the Company's long-term debt are as follows (in millions):

2019	\$ _
2020	\$ 450
2021	\$ 500
2022	\$ 600
2023	\$ _
Thereafter	\$ 750

Interest expense activity is as follows:

		Year Ended December 31,																						
	2	2018		2018		2018		2018		2018		2018		2018		2018		2017		2017		2017		5
			(in m	nillions)																				
Cash payments for interest	\$	133	\$	164	\$	196																		
Amortization of issuance discounts		1		1		9																		
Amortization of capitalized loan fees		4		4		4																		
Net changes in accruals		(6)		(9)		2																		
Interest incurred		132		160		211																		
Less capitalized interest		(6)		(7)		(4)																		
	\$	126	\$	153	\$	207																		
Net changes in accruals Interest incurred	\$	(6) 132 (6)	\$	(9) 160 (7)	\$																			

### **NOTE 8. Incentive Plans**

Deferred compensation retirement plan. The Company's deferred compensation retirement plan allows for qualified officers and certain key employees of the Company to contribute up to 25 percent of their base salary and 100 percent of their annual bonus. The Company provides a matching contribution of 100 percent of the officer's and key employee's contribution limited up to the first ten percent of the officer's base salary and eight percent of the key employee's base salary. The Company's matching contribution vests immediately. A trust fund has been established by the Company to accumulate the contributions made under this retirement plan. The Company's matching contributions were \$3 million for each of the years ended December 31, 2018, 2017 and 2016, respectively.

401(k) plan. The Pioneer Natural Resources USA, Inc. ("Pioneer USA," a wholly-owned subsidiary of the Company) 401(k) and Matching Plan (the "401(k) Plan") is a defined contribution plan established under the Internal Revenue Code Section 401. All regular full-time and part-time employees of Pioneer USA are eligible to participate in the 401(k) Plan on the first day of the month following their date of hire. Participants may contribute up to 80 percent of their annual base salary into the 401(k) Plan. Matching contributions are made to the 401(k) Plan in cash by Pioneer USA in amounts equal to 200 percent of a participant's contributions to the 401(k) Plan that are not in excess of five percent of the participant's annual base salary (the "Matching Contribution"). Each participant's account is credited with the participant's contributions, Matching Contributions and allocations of the 401(k) Plan's earnings. Participants are fully vested in their account balances except for Matching Contributions and their proportionate share of 401(k) Plan earnings attributable to Matching Contributions, which proportionately vest over a four-year period that begins on the participant's date of hire. Beginning in February 2018, eligible employees are automatically enrolled in the 401(k) Plan at a contribution rate of five percent of the employee's annual base salary, unless the employee opts out of participation or makes an alternate election within 30 days of becoming eligible for participation.

During the years ended December 31, 2018, 2017 and 2016, the Company recorded compensation expense of \$36 million, \$25 million and \$23 million, respectively, as a result of Matching Contributions.

*Stock-based compensation costs.* The Company records stock-based compensation expense ratably over the vesting periods of the Company's stock-based compensation awards using the awards' fair value. The Company maintains two plans providing for stock-based compensation: the Amended and Restated 2006 Long-Term Incentive Plan ("LTIP") and the Employee Stock Purchase Plan ("ESPP").

Long-Term Incentive Plan. The LTIP provides for the granting of various forms of awards, including stock options, stock appreciation rights, performance units, restricted stock and restricted stock units to directors, officers and employees of the Company.

The number of shares available for grant pursuant to awards under the LTIP is as follows:

	As of December 31, 2018
Approved and authorized awards	12,600,000
Awards issued under plan	(7,746,616)
Awards available for future grant	4,853,384

Employee Stock Purchase Plan. The ESPP allows eligible employees to annually purchase the Company's common stock at a discounted price. Officers of the Company are not eligible to participate in the ESPP. Contributions to the ESPP are limited to 15 percent of an employee's base salary (subject to certain ESPP limits) during the eight-month offering period (January 1 to August 31). Participants in the ESPP purchase the Company's common stock at a price that is 15 percent below the closing sales price of the Company's common stock on either the first day or the last day of each offering period, whichever closing sales price is lower.

The number of shares available for issuance under the ESPP is as follows:

	As of December 31, 2018
Approved and authorized shares	1,250,000
Shares issued	(1,002,433)
Shares available for future issuance	247,567

Stock-based compensation expense and the associated income tax benefit are as follows:

		Year Ended December 31,				
	201	2018 2017		017	2016	
			(in m	illions)		
Restricted stock - Equity Awards	\$	65	\$	60	\$	66
Restricted stock - Liability Awards		17		24		24
Performance unit awards		18		17		21
ESPP		2		2		2
	\$	102	\$	103	\$	113
Income tax benefit	\$	17	\$	19	\$	34

As of December 31, 2018, there was \$80 million of unrecorded stock-based compensation expense related to unvested share-based compensation plans, including \$14 million attributable to Liability Awards that are expected to be settled in cash on their vesting dates. The weighted average remaining vesting period of the awards is less than three years.

**Restricted stock awards.** During 2018, the Company awarded 503,982 restricted shares or units of the Company's common stock as compensation to directors, officers and employees of the Company (including 113,364 shares or units representing Liability Awards).

Restricted stock award activity is as follows:

	Year Ended December 31, 2018			
	Equity .	Liability Awards		
	Weighted Average Grant- Number of Date Fair Shares Value		Number of Shares	
Outstanding at beginning of year	916,223	\$	151.71	252,735
Shares granted	390,618	\$	180.66	113,364
Shares forfeited	(60,103)	\$	168.20	(26,967)
Shares vested	(447,066)	\$	150.83	(137,631)
Outstanding at end of year	799,672	\$	165.10	201,501

The weighted average grant-date fair value of restricted stock Equity Awards awarded during 2018, 2017 and 2016 was \$180.66, \$180.50 and \$122.72, respectively. The grant-date fair value of restricted stock Equity Awards that vested during 2018, 2017 and 2016 was \$67 million, \$70 million and \$66 million, respectively.

As of December 31, 2018 and 2017, accounts payable - due to affiliates in the consolidated balance sheets includes \$14 million and \$20 million, respectively, of liabilities attributable to the Liability Awards, representing the fair value of the earned, but unvested, portion of the outstanding awards as of that date. The cash paid for Liability Awards that vested during 2018, 2017 and 2016 was \$24 million, \$20 million and \$18 million, respectively.

*Performance unit awards.* During 2018, 2017 and 2016, the Company awarded performance units to certain of the Company's officers under the LTIP. The number of shares of common stock to be issued is determined by comparing the Company's total shareholder return to the total shareholder return of a predetermined group of peer companies over the performance period. The performance unit awards vest over a 34-month service period.

The grant-date fair values per unit of the 2018, 2017 and 2016 performance unit awards were \$246.18, \$258.27 and \$203.69, respectively, which were determined using the Monte Carlo simulation model, and are being recorded as stock-based compensation expense ratably over the performance period. The Monte Carlo simulation model utilizes multiple input variables that determine the probability of satisfying the market condition stipulated in the award grant and calculates the fair value of the award. Expected volatilities utilized in the model were estimated using a historical period consistent with the performance period of approximately three years. The risk-free interest rate was based on the United States Treasury rate for a term commensurate with the expected life of the grant.

Assumptions used to estimate the fair value of performance unit awards granted are as follows:

	<u></u>	Year Ended December 31,	
	2018	2017	2016
Risk-free interest rate	2.41%	1.42%	0.96%
Range of volatilities	30.4% - 53.3%	33.6% - 58.2%	28.3% - 53.6%

Performance unit activity is as follows:

	Year Ended December 31, 2018				
	Number of Units (a)		Weighted Average Grant-Date Fair Value		
Beginning performance unit awards	163,158	\$	223.45		
Units granted	62,541	\$	246.18		
Units forfeited	(1,285)	\$	225.14		
Units vested (b)	(105,245)	\$	204.68		
Ending performance unit awards	119,169	\$	251.92		

- (a) Amount reflects the number of performance units initially granted. The actual payout of shares upon vesting may be between zero percent and 250 percent of the performance units included in this table depending upon the total shareholder return ranking of the Company compared to peer companies at the vesting date.
- (b) Amount reflects the number of performance units vested upon retirement of eligible officers and the vesting of performance units for which the service period has ended. On December 31, 2018, the service period lapsed on 103,334 performance unit awards that earned 1.10 shares for each vested award, representing 113,674 aggregate shares of common stock issued on January 2, 2019. The vested performance units that earned 1.10 shares for each vested award included 68,556 units that vested in the current year and 34,778 units that vested in prior years associated with the retirement of the participant. In addition, 1,911 units vested upon retirement of an eligible officer and will be issued when the performance period ends in 2019.

The grant-date fair value of performance units that vested during 2018, 2017 and 2016 was \$21 million, \$18 million and \$15 million, respectively.

### **NOTE 9. Asset Retirement Obligations**

The Company's asset retirement obligations primarily relate to the future plugging and abandonment of wells and related facilities. Market risk premiums associated with asset retirement obligations are estimated to represent a component of the Company's credit-adjusted risk-free rate that is utilized in the calculations of asset retirement obligations.

Asset retirement obligations activity is as follows:

	Year Ended December 31,					
	2018	2017	2016			
		(in millions)				
Beginning asset retirement obligations	\$ 271	\$ 297	\$ 285			
Obligations assumed in acquisitions	_	_	2			
New wells placed on production	1	3	2			
Changes in estimates (a)	16	(9)	17			
Dispositions	(89	) (7)	_			
Liabilities settled	(30	(32)	(27)			
Accretion of discount	14	19	18			
Ending asset retirement obligations	\$ 183	\$ 271	\$ 297			

<sup>(</sup>a) Changes in estimates are determined based on several factors, including abandonment cost estimates based on recent actual costs incurred to abandon wells, credit-adjusted risk-free discount rates and well life estimates. The increase in 2018 is primarily due to an increase in abandonment expense estimates, offset by an increase in commodity prices, which has the effect of lengthening the economic life of the Company's producing wells. Abandonment expense estimates used in the calculation of asset retirement obligations are based on actual cost incurred per well for such costs. The decrease in 2017 was primarily due to an increase in commodity prices, which has the effect of lengthening the economic life of the Company's producing wells.

The Company classifies the current and noncurrent portions of asset retirement obligations as other current liabilities and other liabilities, respectively, in the consolidated balance sheets. As of December 31, 2018 and 2017, the current portion of the Company's asset retirement obligations were \$25 million and \$41 million, respectively.

### **NOTE 10. Commitments and Contingencies**

**Severance agreements.** The Company has entered into severance and change in control agreements with its officers and certain key employees. The current annual salaries for the officers and key employees covered under such agreements total \$30 million.

*Indemnifications.* The Company has agreed to indemnify its directors and certain of its officers, employees and agents with respect to claims and damages arising from acts or omissions taken in such capacity, as well as with respect to certain litigation.

**Legal actions.** The Company is party to various proceedings and claims incidental to its business. While many of these matters involve inherent uncertainty, the Company believes that the amount of the liability, if any, ultimately incurred with respect to these proceedings and claims will not have a material adverse effect on the Company's consolidated financial position as a whole or on its liquidity, capital resources or future annual results of operations. The Company records reserves for contingencies when information available indicates that a loss is probable and the amount of the loss can be reasonably estimated.

*Environmental*. Environmental expenditures that relate to an existing condition caused by past operations and that have no future economic benefits are expensed. Environmental expenditures that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized. Liabilities for expenditures that will not qualify for capitalization are recorded when environmental assessment and/or remediation is probable and the costs can be reasonably estimated. Such liabilities are undiscounted unless the timing of cash payments for the liability is fixed or reliably determinable. Environmental liabilities normally involve estimates that are subject to revision until settlement or remediation occurs.

Obligations following divestitures. In connection with its divestiture transactions, the Company may retain certain liabilities and provide the purchaser certain indemnifications, subject to defined limitations, which may apply to identified pre-closing matters, including matters of litigation, environmental contingencies, royalty obligations and income taxes. The Company does not believe that these obligations are probable of having a material impact on its liquidity, financial position or future results of operations. Also associated with our divestiture transactions, the Company has issued and received guarantees to facilitate the transfer of contractual obligations such as firm transportation agreements or gathering and processing arrangements. The Company believes the likelihood of making or receiving payments under these guarantees to be remote. As of December 31, 2018 the maximum amount of payments the Company could be required to make under the guarantees is \$132 million, which could be partially offset by credit support from third parties of \$69 million.

Texas Commission on Environmental Quality ("TCEQ") enforcement action. The Company has been advised by the TCEQ that the agency is pursuing an enforcement action against the Company and may seek monetary sanctions due to various emissions occurring during the Company's ownership of the Fain gas plant in the West Panhandle region of Texas, which was sold during 2018. The Company has engaged in discussions with the TCEQ regarding these matters and the TCEQ staff has proposed an enforcement order that is acceptable to, and has been executed by, the Company. The proposed enforcement order is now awaiting formal consideration and approval by TCEQ commissioners. Commissioner approval is not assured and the Company cannot predict the outcome of the TCEQ commissioner considerations with any certainty. The Company believes such monetary sanctions will not exceed \$235,500 in the aggregate.

*Lease commitments.* The Company leases drilling rigs, storage tanks, equipment and office facilities under operating leases. Rent expense for the years ended December 31, 2018, 2017 and 2016 was \$98 million, \$82 million and \$69 million, respectively.

In June 2017, the Company entered into a 20-year operating lease for the Company's new corporate headquarters that is currently being constructed in Irving, Texas. Annual base rent is expected to be \$33 million and lease payments are expected to commence once the building is complete, which is expected to occur during the second half of 2019. The Company has a variable equity interest in the entity that is constructing the building. The Company is not the primary beneficiary of the variable interest entity and only has a profit sharing interest after certain economic returns are achieved. The Company has no exposure to the variable interest entity's losses or future liabilities, if any. The Company is the deemed owner of the building (for accounting purposes) during the construction period and is following the build-to-suit accounting guidance.

The build-to-suit asset and liability associated with the Company's new corporate headquarters are as follows:

	A	As of December 31,		
	2018		2017	
		(in millions)		
Other property and equipment, net (a)	\$	217 \$	57	
Other noncurrent liabilities (b)	\$	219 \$	56	

- (a) A noncash investing activity for purposes of the consolidated statements of cash flows.
- (b) A noncash financing activity for purposes of the consolidated statements of cash flows.

**Drilling commitments.** The Company's principal drilling commitments are related to drilling rig contracts that require the Company to pay day rates for contracted drilling rigs over their contractual term. The majority of the drilling rig day rates are linked to oil prices causing the day rates to fluctuate over the contract term as oil prices change. In addition, the Company periodically enters into contractual arrangements under which the Company is committed to expend funds to drill wells in the future. The Company recognizes its drilling commitments in the periods in which the rig services are performed.

*Firm commitments.* The Company from time to time enters into, and is a party to, take-or-pay agreements, which include contractual commitments to purchase sand and water for use in the Company's drilling operations and contractual commitments with midstream service companies and pipeline carriers for future gathering, processing, transportation, fractionation and storage. These commitments are normal and customary for the Company's business activities. Certain future minimum gathering, processing, transportation, fractionation and storage fees are based upon rates and tariffs that are subject to change over the terms of the commitments.

Minimum commitments are as follows:

		As of December 31, 2018				
	Lease Con	<b>Lease Commitments</b>		Firm Commitments		Total
			(in m	illions)		
2019	\$	234	\$	662	\$	896
2020		169		694		863
2021		97		690		787
2022		66		546		612
2023		40		323		363
Thereafter		647		1,516		2,163
Total minimum commitments	\$	1,253	\$	4,431	\$	5,684

*Gas delivery commitments.* The Company has contracts that require delivery of fixed volumes of gas. The Company intends to fulfill its short-term and long-term obligations with production or from purchases of third party volumes.

Delivery commitments for gas are as follows:

	As of December 31, 2018
	(MMBtu per day)
2019	38,247
2020	111,557
2021	100,000
2022	100,000
2023	100,000
2024	83,675

### **NOTE 11. Related Party Transactions**

On December 31, 2018, the Company completed the sale of its pressure pumping assets to ProPetro in exchange for 16.6 million shares of ProPetro common stock and \$110 million of short-term receivables to be paid by ProPetro during the first quarter of 2019. The shares acquired in the acquisition represent approximately 16 percent of ProPetro's outstanding common stock, resulting in ProPetro being considered a related party as of December 31, 2018. In addition to the sale of equipment and related facilities, the Company entered into a long-term agreement with ProPetro to provide pressure pumping and related services. See Note 2 and Note 3 for additional information.

In February 2019, the Company exercised its right to designate (i) a director to the board of directors of ProPetro, which right will exist for so long as the Company owns five percent or more of ProPetro's outstanding common stock, and (ii) an independent director to the board of directors of ProPetro, which is a one time right. Mark S. Berg, the Company's Executive Vice President Corporate/Vertically Integrated Operations, was the Company's designee in the first category, and Royce W. Mitchell, an independent member of the Company's board of directors, was the Company's designee in the second category.

Balances with the Company's affiliate are as follows:

	As of Decemb	As of December 31, 2018	
	(in milli	ons)	
Accounts receivable - due from affiliate (a)	\$	119	
Accounts payable - due to affiliate (b)	\$	37	

<sup>(</sup>a) Includes \$110 million of short-term receivables and employee-related charges to be reimbursed by ProPetro.

<sup>(</sup>b) Prior to the Company's sale of its pressure pumping assets to ProPetro, the Company utilized the services of ProPetro in the normal course of business. The balance represents invoices associated with those services that are in the process of being paid.

### **NOTE 12. Major Customers**

Purchasers of the Company's oil, NGL and gas production that individually accounted for ten percent or more of the Company's oil and gas revenues in at least one of the three years ended December 31, 2018 are as follows:

	Year Ei	Year Ended December 31,		
	2018	2017	2016	
Sunoco Logistics Partners L.P.	28%	21%	19%	
Occidental Energy Marketing Inc.	17%	16%	16%	
Plains Marketing L.P.	15%	14%	16%	
Enterprise Products Partners L.P.	6%	11%	12%	

The loss of any of these major purchasers of oil, NGL and gas production could have a material adverse effect on the ability of the Company to produce and sell its oil, NGL and gas production.

Purchasers of the Company's purchased oil and gas that individually accounted for ten percent or more of the Company's sales of purchased oil and gas in at least one of the three years ended December 31, 2018 are as follows:

	Year E	Year Ended December 31,		
	2018	2017	2016	
Occidental Energy Marketing Inc.	34%	39%	27%	
Valero Marketing and Supply Company	9%	14%	17%	
BP Energy	9%	11%	18%	
Exxon Mobil	5%	11%	23%	

The loss of any of these major purchasers of purchased oil and gas would not be expected to have an adverse effect on the ability of the Company to sell commodities it purchases from third parties.

### **NOTE 13. Revenue Recognition**

The Company recognizes revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. See Note 2 for additional information.

**Disaggregated revenue from contracts with purchasers.** Revenues on sales of oil, NGL, gas and purchased oil and gas are recognized when control of the product is transferred to the purchaser and payment can be reasonably assured. Sales prices for oil, NGL and gas production are negotiated based on factors normally considered in the industry, such as an index or spot price, distance from the well to the pipeline or market, commodity quality and prevailing supply and demand conditions. As such, the prices of oil, NGL and gas generally fluctuate based on the relevant market index rates.

Disaggregated revenue from contracts with purchasers by product type is as follows:

	Year Ended December 31, 2018		
	(in millions)		
Oil sales	\$	3,991	
NGL sales		695	
Gas sales		305	
Total oil and gas sales		4,991	
Sales of purchased oil		4,339	
Sales of purchased gas		49	
Total sales of purchased oil and gas		4,388	
	\$	9,379	

Oil sales. Sales under the Company's oil contracts are generally considered performed when the Company sells oil production at the wellhead and receives an agreed-upon index price, net of any price differentials. The Company recognizes revenue when control transfers to the purchaser at the wellhead based on the net price received.

NGL and gas sales. The Company evaluated whether it was the principal or the agent in gas processing transactions and concluded that it is the principal when it has the ability to take-in-kind, which is the case in the majority of the Company's gas processing and transportation contracts. Therefore, beginning January 1, 2018, the Company began recognizing revenue on a gross basis, with the gathering, processing and transportation costs associated with its take-in-kind arrangements being recorded as oil and gas production costs in the consolidated statement of operations. Gas and NGL processing fees that were previously reflected as a reduction in the Company's reported gas and NGL revenue are now recorded as an expense in the Company's production costs.

Sales of purchased oil and gas. The Company enters into pipeline capacity commitments in order to secure available oil, NGL and gas transportation capacity from the Company's areas of production. The Company also enters into purchase transactions with third parties and separate sale transactions with third parties to (i) diversify a portion of the Company's oil sales to the Gulf Coast refinery or international export markets and (ii) satisfy unused gas pipeline capacity commitments. Revenues and expenses from these transactions are presented on a gross basis as the Company acts as a principal in the transaction by assuming control of the commodities purchased and the responsibility to deliver the commodities sold. Revenue is recognized when control transfers to the purchaser at the delivery point based on the price received from the purchaser. The transportation costs associated with these transactions are presented as a component of purchased oil and gas expense. Firm transportation payments on excess pipeline capacity are recorded as other expense in the consolidated statements of operations.

**Performance obligations and contract balances.** The majority of the Company's product sale commitments are short-term in nature with a contract term of one year or less. The Company typically satisfies its performance obligations upon transfer of control as described above in *Disaggregated revenue from contracts with purchasers* and records the related revenue in the month production is delivered to the purchaser. Settlement statements for sales of oil, NGL and gas and sales of purchased oil and gas may not be received for 30 to 60 days after the date the volumes are delivered, and as a result, the Company is required to estimate the amount of volumes delivered to the purchaser and the price that will be received for the sale of the product. The Company records the differences between estimates and the actual amounts received for product sales in the month that payment is received from the purchaser. The implementation of ASC 606 has not changed existing controls around revenue estimates and the accrual process. Historically, differences between the Company's revenue estimates and actual revenue received have not been significant. As of December 31, 2018 and 2017, the accounts receivable balance representing amounts due or billable under the terms of contracts with purchasers was \$646 million and \$594 million, respectively.

#### **NOTE 14. Interest and Other Income**

The components of interest and other income are as follows:

	Year Ended December 31,							
	2018		2017			2016		
			(in million	s)				
Interest income	\$	29	\$	32	\$	22		
Seismic data sales		5		_		_		
Severance, sales and property tax refunds		1		13		2		
Deferred compensation plan income (loss)		(2)		4		3		
Right of way income		4		1		_		
Other income		1		3		5		
	\$	38	\$	53	\$	32		

#### **NOTE 15. Other Expense**

The components of other expense are as follows:

Year Ended December 31,							
	2018	2017		2016			
		(in millions)					
\$	443	\$ —	\$	_			
	173	_		4			
	161	167		109			
	19	20		6			
	2	17		54			
	_	_		64			
	51	40		51			
\$	849	\$ 244	\$	288			
		\$ 443 173 161 19 2 — 51	2018         2017           (in millions)         \$           \$         443         \$           173         —           161         167           19         20           2         17           —         —           51         40	2018         2017           (in millions)         \$           \$ 443         \$ — \$           173         —           161         167           19         20           2         17           —         —           51         40			

<sup>(</sup>a) Represents accelerated depreciation related to the decommissioning of the Company's Brady, Texas sand mine. See Note 3 for additional information.

<sup>(</sup>b) Primarily represents \$111 million of deficiency charges related to certain firm transportation contracts retained by the Company associated with the sale of its gas field assets in the Raton Basin, \$39 million of employee-related charges associated with the Company's 2018 divestitures and sand mine decommissioning efforts and \$13 million of contract termination charges associated with the sale of the Company's pressure pumping assets. See Note 3 for additional information.

<sup>(</sup>c) Primarily represents firm transportation charges on excess pipeline capacity commitments.

<sup>(</sup>d) Primarily represents net margins (attributable to third party working interest owners) that result from Company-provided fracture stimulation and well service operations, which are ancillary to and supportive of the Company's oil and gas joint operating activities, and do not represent intercompany transactions. For the three years ended December 31, 2018, 2017 and 2016, these vertical integration net margins included \$128 million, \$140 million and \$147 million of gross vertical integration revenues, respectively, and \$130 million, \$157 million and \$201 million of total vertical integration costs and expenses, respectively.

<sup>(</sup>e) Primarily represents expenses attributable to idle drilling rig fees that are not chargeable to joint operations and charges to terminate rig contracts that were not required to meet planned drilling activities.

#### **NOTE 16. Income Taxes**

The Company and its eligible subsidiaries file a consolidated U.S. federal income tax return. Certain subsidiaries are not eligible to be included in the consolidated U.S. federal income tax return and separate provisions for income taxes have been determined for these entities or groups of entities. The tax returns and the amount of taxable income or loss are subject to examination by U.S. federal, state, local and foreign taxing authorities.

Taxes paid, net of refunds are as follows:

	Yea	Year Ended December 31,						
	2018	2017	2016					
		(in millions)						
Taxes paid, net of (refunds)	\$ —	\$ —	\$ (66)					

The Company continually assesses both positive and negative evidence to determine whether it is more likely than not that deferred tax assets can be realized prior to their expiration. Pioneer monitors Company-specific, oil and gas industry and worldwide economic factors and based on that information, along with other data, reassesses the likelihood that the Company's net operating loss carryforwards ("NOLs") and other deferred tax attributes in the U.S. federal, state, local and foreign tax jurisdictions will be utilized prior to their expiration.

*Enactment of the Tax Cuts and Jobs Act.* On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "Tax Reform Legislation"), which introduced significant changes to the U.S. federal income tax law. The changes that most impact the Company include:

- A reduction in the federal corporate income tax rate from 35 percent to 21 percent. The rate reduction is effective for the Company as of January 1, 2018. The application of the rate change on the Company's existing deferred tax liabilities resulted in a \$625 million income tax benefit to the Company during 2017.
- Repeal of the corporate alternative minimum tax ("AMT"). The Tax Reform Legislation provides that existing AMT credit carryovers are refundable beginning in 2018. As of December 31, 2018, the Company had AMT credit carryovers of \$20 million that are expected to be fully refunded by 2022.
- The Tax Reform Legislation preserves the deductibility of intangible drilling costs and provides for 100 percent bonus depreciation on personal tangible property expenditures through 2022. The bonus depreciation percentage is phased down from 100 percent beginning in 2023 through 2026.

The Tax Reform Legislation is a comprehensive bill containing other provisions, such as limitations on the deductibility of interest expense and certain executive compensation, that are not expected to materially affect Pioneer. The ultimate impact of the Tax Reform Legislation may differ from the Company's estimates as of December 31, 2018 due to changes in the interpretations and assumptions made by the Company as well as additional regulatory guidance that may be issued.

ASC 740 "Income Taxes" requires companies to recognize the effect of tax law changes in the period of enactment. However, the Securities and Exchange Commission staff issued Staff Accounting Bulletin No. 118 that allowed companies to record provisional amounts during a measurement period not extending beyond one year from the Tax Reform Legislation enactment date. The Company's accounting for the impacts of the Tax Reform Legislation is complete as of December 31, 2018, and the Company has not recorded any material adjustments to the provisional amounts recorded in the fourth quarter of 2017 related to the Tax Reform Legislation.

Uncertain tax positions. The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The Company has unrecognized tax benefits ("UTBs") resulting from research and experimental expenditures related to horizontal drilling and completion innovations. If all or a portion of the UTBs is sustained upon examination by the taxing authorities, the tax benefit will be recorded as a reduction to the Company's deferred tax liability and will affect the Company's effective tax rate in the period it is recorded. The timing as to when the Company will substantially resolve the uncertainties associated with the UTBs is uncertain.

Unrecognized tax benefit activity is as follows:

		Year Ended December 31,							
	2	2018		2017		2016			
			(in 1	millions)					
Beginning unrecognized tax benefits	\$	124	\$	112	\$	_			
Additions based on current year tax positions		17		12		112			
Ending unrecognized tax benefits	\$	141	\$	124	\$	112			

*Other tax matters.* The Company files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. As of December 31, 2018, there are no proposed adjustments in any jurisdiction that would have a significant effect on the Company's future results of operations or financial position.

The earliest open years in the Company's key jurisdictions are as follows:

U.S. federal	2012
Various U.S. states	2013

Income tax (provision) benefit is as follows:

	Year Ended December 31,					
		2018	2017		2	016
	(in millions)					
Current:						
U.S. federal	\$	_	\$	5	\$	22
U.S. state		(2)		_		2
		(2)		5		24
Deferred:						
U.S. federal		(258)		526		375
U.S. state		(16)		(7)		4
		(274)		519		379
Income tax (provision) benefit	\$	(276)	\$	524	\$	403

The effective tax rate for income (loss) is reconciled to the United States federal statutory rate as follows:

	Year Ended December 31,							
		2018		2018 2017		2017		2016
		es)						
Income (loss) before income taxes	\$	1,251	\$	309	\$	(959)		
Net loss attributable to noncontrolling interests		3		_		_		
Income (loss) attributable to common stockholders before income taxes	\$	1,254	\$	309	\$	(959)		
Federal statutory income tax rate		21%		35%		35%		
(Provision) benefit for federal income taxes at the statutory rate		(263)		(108)		336		
State income tax (provision) benefit (net of federal tax)		(12)		(4)		3		
State valuation allowance (net of federal tax)		(2)		(1)		(3)		
Change in federal income tax rate (a)		_		625		_		
Equity compensation excess tax benefit		3		9		_		
Federal credit for increasing research activities (net of UTBs)		6		6		68		
State credit for increasing research activities (net of UTBs and federal tax)		_		_		4		
Other		(8)		(3)		(5)		
Income tax (provision) benefit	\$	(276)	\$	524	\$	403		
Effective income tax rate, excluding net loss attributable to noncontrolling interests		22%		(170)%		42%		

<sup>(</sup>a) During 2017, the Company recorded a benefit of \$625 million as a result of the Tax Reform Legislation that reduced the federal income tax rate beginning in 2018.

Significant components of deferred tax assets and deferred tax liabilities are as follows:

	December 31,				
		2018		2017	
		(in mi	llions)		
Deferred tax assets:					
Net operating loss carryforward (a)	\$	882	\$	594	
Credit carryforwards (b)		111		87	
Asset retirement obligations		40		59	
Incentive plans		48		48	
Net deferred hedge losses		11		52	
Other		51		22	
Total deferred tax assets		1,143		862	
Deferred tax liabilities:					
Oil and gas properties, principally due to differences in basis, depletion and the deduction of intangible drilling costs for tax purposes		(2,248)		(1,604)	
Other property and equipment, principally due to the deduction of bonus depreciation for tax purposes		(47)		(157)	
Total deferred tax liabilities		(2,295)		(1,761)	
Net deferred tax liability	\$	(1,152)	\$	(899)	

<sup>(</sup>a) Net operating loss carryforwards as of December 31, 2018 consist of \$4.2 billion of U.S. federal NOLs, which expire between 2032 and 2038. Additionally, the net operating loss carryforwards consist of \$177 million of Colorado NOLs that begin to expire in 2027, all of which have a fully offsetting valuation allowance.

<sup>(</sup>b) Credit carryforwards as of December 31, 2018, consist of \$20 million of U.S. federal minimum tax credits. Additionally, the credit carryforwards consist of \$88 million of U.S. federal credits and \$3 million of Texas credits for increasing research activities. The U.S. federal and state research credits as of December 31, 2018 exclude \$141 million of unrecognized tax benefits.

#### NOTE 17. Net Income (Loss) Per Share

The Company's basic net income (loss) per share attributable to common stockholders is computed as (i) net income (loss) attributable to common stockholders, (ii) less participating share- and unit-based basic earnings (iii) divided by weighted average basic shares outstanding. The Company's diluted net income (loss) per share attributable to common stockholders is computed as (i) basic net income (loss) attributable to common stockholders, (ii) plus diluted adjustments to participating undistributed earnings (iii) divided by weighted average diluted shares outstanding. Diluted net income (loss) per share attributable to common stockholders is calculated under both the two-class method and the treasury stock method and the more dilutive of the two calculations is presented.

The components of basic and diluted net income (loss) per share attributable to common stockholders are as follows:

		Year Ended December 31,						
	2	2018		2017		2016		
			(in 1	nillions)				
Net income (loss) attributable to common stockholders	\$	978	\$	833	\$	(556)		
Participating share based earnings (a)		(5)		(6)		_		
Basic and diluted net income (loss) attributable to common stockholders	\$	973	\$	827	\$	(556)		

<sup>(</sup>a) Unvested restricted stock awards represent participating securities because they participate in nonforfeitable dividends with the common equity owners of the Company. Participating share- or unit-based earnings represent the distributed and undistributed earnings of the Company attributable to the participating securities. Unvested restricted stock awards do not participate in undistributed net losses as they are not contractually obligated to do so.

Basic and diluted weighted average common shares outstanding were 171 million, 170 million and 166 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Stock repurchase program. In December 2018, the Company's board of directors authorized a common stock repurchase program that will allow the Company to repurchase up to \$2 billion of its common stock. Under this stock repurchase program, the Company may repurchase shares from time to time at management's discretion in accordance with applicable securities laws. In addition, the Company may repurchase shares pursuant to a trading plan meeting the requirements of Rule 10b5-1 under the Securities Act of 1934, which would permit the Company to repurchase shares at times that may otherwise be prohibited under the Company's insider trading policy. The stock repurchase program has no time limit, may be modified, suspended or terminated at any time by the board of directors and replaces and terminates the Company's prior \$100 million common stock repurchase program announced in February 2018.

During 2018, the Company repurchased \$22 million of common stock pursuant to the prior common stock repurchase program and \$127 million of common stock pursuant to the newly authorized common stock repurchase program. As of December 31, 2018, \$1.9 billion remains available for use to repurchase shares under the newly authorized common stock repurchase program.

#### **NOTE 18. Subsequent Events**

In February 2019, the board of directors declared a cash dividend of \$0.32 per share on Pioneer's outstanding common stock, payable April 12, 2019 to stockholders of record at the close of business on March 29, 2019.

#### Oil & Gas Exploration and Production Activities

The Company has only one reportable operating segment, which is oil and gas development, exploration and production in the U.S. See the Company's accompanying consolidated statements of operations for information about results of operations for oil and gas producing activities.

#### Capitalized Costs

	December 31,				
		2018	018 20		
		llions)			
Oil and gas properties:					
Proved	\$	21,165	\$	20,404	
Unproved		601		558	
Capitalized costs for oil and gas properties		21,766		20,962	
Less accumulated depletion, depreciation and amortization		(8,218)		(9,196)	
Net capitalized costs for oil and gas properties	\$	13,548	\$	11,766	

#### Costs Incurred for Oil and Gas Producing Activities

	Year Ended December 31,							
		2018		2017		2016		
Property acquisition costs:								
Proved	\$	1	\$	8	\$	78		
Unproved		64		128		368		
Exploration costs		2,654		2,033		1,454		
Development costs		949		628		509		
Total costs incurred (a)	\$	3,668	\$	2,797	\$	2,409		

<sup>(</sup>a) The costs incurred for oil and gas producing activities include amounts related to asset retirement obligations as follows:

		Year Ended December 31,						
	2	018	2017	2016				
			(in millions)					
Proved property acquisition costs	\$	_	\$ —	\$ 2				
Exploration costs		1	2	2				
Development costs		16	(19)	17				
	\$	17	\$ (17)	\$ 21				

#### Reserve Quantity Information

The estimates of the Company's proved reserves as of December 31, 2018, 2017 and 2016 were based on evaluations prepared by the Company's engineers and audited by independent petroleum engineers with respect to the Company's major properties and prepared by the Company's engineers with respect to all other properties. Proved reserves were estimated in accordance with guidelines established by the U.S. Securities and Exchange Commission (the "SEC") and the FASB, which require that reserve estimates be prepared under existing economic and operating conditions based upon an average of the first-day-of-the-month commodity price during the 12-month period ending on the balance sheet date with no provision for price and cost escalations except by contractual arrangements.

Proved reserve quantity estimates are subject to numerous uncertainties inherent in the estimation of quantities of proved reserves and in the projection of future rates of production and the timing of development expenditures. The accuracy of such estimates is a function of the quality of available data and of engineering and geological interpretation and judgment. Results of

subsequent drilling, testing and production may cause either upward or downward revision of previous estimates. Further, the volumes considered to be commercially recoverable fluctuate with changes in commodity prices and operating costs. The Company emphasizes that proved reserve estimates are inherently imprecise and that estimates of new discoveries are more imprecise than those of currently producing oil and gas properties. Accordingly, these estimates are expected to change as additional information becomes available in the future.

# UNAUDITED SUPPLEMENTARY INFORMATION PIONEER NATURAL RESOURCES COMPANY December 31, 2018, 2017 and 2016

The following table provides a rollforward of total proved reserves. Oil and NGL volumes are expressed in thousands of Bbls ("MBbls"), gas volumes are expressed in millions of cubic feet ("MMcf") and total volumes are expressed in thousands of barrels of oil equivalent ("MBOE").

						Year Ended December 31	December 31,					
		20	2018			2017	7			2016	16	
	Oil (MBbls)	NGLs (MBbls)	Gas Total (MMcf) (a) (MBOE)	Total (MBOE)	Oil (MBbls)	NGLs (MBbls)	Gas (MMcf) (a)	Total (MBOE)	Oil (MBbls)	NGLs (MBbls)	Gas (MMcf) (a)	Total (MBOE)
Balance, January 1	482,889	210,497	1,751,880	985,366	378,196	136,941	1,264,729	725,925	311,970	126,344	1,356,487	664,395
Production (b)	(69,583)	(23,280)	(157,278)	(119,076)	(57,878)	(20,078)	(143,464)	(101,867)	(48,926)	(15,922)	(139,510)	(88,100)
Revisions of previous estimates	(15,665)	21,087	257,502	48,339	20,140	44,995	365,275	126,015	(3,912)	1,279	(76,998)	(15,466)
Extensions and discoveries	175,067	51,414	230,272	264,859	146,822	49,378	266,347	240,591	117,406	24,735	120,766	162,269
Sales of minerals-in-place	(7,722)	(18,809)	(623,830)	(130,502)	(4,899)	(918)	(4,898)	(6,633)	(806)	(238)	(1,377)	(1,376)
Purchases of minerals-in-place	24	5	28	34	508	179	3,891	1,335	2,566	743	5,361	4,203
Balance, December 31	565,010	240,914	1,458,574	1,049,020	482,889	210,497	1,751,880	985,366	378,196	136,941	1,264,729	725,925

The proved gas reserves as of December 31, 2018, 2017 and 2016 include 106,948 MMcf, 171,623 MMcf and 137,853 MMcf, respectively, of gas that the Company expected to be produced and utilized as field fuel. Field fuel is gas consumed to operate field equipment (primarily compressors) rather than being delivered to a sales point. Production for 2018, 2017 and 2016 includes 13,690 MMcf, 14,799 MMcf and 15,082 MMcf of field fuel, respectively. (a)

<sup>(</sup>p)

Revisions of previous estimates. Revisions of previous estimates for 2018 were comprised of 20 million barrels of oil equivalent ("MMBOE") of positive price revisions due to a 28 percent increase in the NYMEX oil price and a four percent increase in the NYMEX gas price that were used to determine proved oil and gas reserves for 2018, as compared to 2017, in addition to 29 MMBOE of positive revisions that were primarily attributable to improved performance from horizontal wells placed on production in the Spraberry/Wolfcamp oil field in the Permian Basin prior to 2018. The December 31, 2018 NYMEX price used for oil and gas reserve preparation based upon SEC guidelines was \$65.57 per barrel of oil and \$3.10 per Mcf of gas, compared to \$51.34 per barrel of oil and \$2.98 per Mcf of gas at December 31, 2017.

Revisions of previous estimates for 2017 were comprised of 52 MMBOE of positive price revisions due to 20 percent increases in both the NYMEX oil and NYMEX gas prices that were used to determine proved oil and gas reserves for 2017, as compared to 2016, in addition to 74 MMBOE of positive revisions that were primarily attributable to improved performance from horizontal wells placed on production in the Spraberry/Wolfcamp prior to 2017 and, to a lesser extent, reductions in costs (based on the Company's cost reduction initiatives during 2017) that had the effect of extending the economic lives of the Company's producing wells. The December 31, 2017 NYMEX price used for oil and gas reserve preparation based upon SEC guidelines was \$51.34 per barrel of oil and \$2.98 per Mcf of gas, compared to \$42.82 per barrel of oil and \$2.48 per Mcf of gas at December 31, 2016.

Revisions of previous estimates for 2016 were comprised of 58 MMBOE of negative price revisions due to 15 percent and four percent declines in the NYMEX oil and gas prices, respectively, that were used to determine proved oil and gas reserves for 2016, as compared to 2015, partially offset by 43 MMBOE of positive revisions that were primarily attributable to reductions in cost estimates (based on cost savings achieved during 2016) that had the effect of extending the economic lives of the Company's producing wells. The December 31, 2016 NYMEX price used for oil and gas reserve preparation based upon SEC guidelines was \$42.82 per barrel of oil and \$2.48 per Mcf of gas, compared to \$50.11 per barrel of oil and \$2.59 per Mcf of gas at December 31, 2015.

*Extensions and discoveries*. Extensions and discoveries for 2018, 2017 and 2016 were primarily comprised of proved reserve additions attributable to the Company's successful horizontal drilling program in the Spraberry/Wolfcamp oil field.

Sales of minerals-in-place. Sales of minerals-in-place in 2018 were primarily related to the sale of approximately 10,200 net acres in the West Eagle Ford Shale gas and liquids field, the sale of the Raton Basin gas field assets in southeast Colorado, the sale of the West Panhandle gas and liquids field assets in the panhandle region of Texas and the sale of 2,900 net acres in the Sinor Nest (Lower Wilcox) oil field in South Texas. See Note 3 to the accompanying financial statements for additional information.

*Purchases of minerals-in-place*. Purchases of minerals-in-place during 2018, 2017 and 2016 were primarily attributable to acquisitions in the Company's Spraberry/Wolfcamp oil field.

Proved developed and proved undeveloped reserves are as follows:

	Oil (MBbls)	NGLs (MBbls)	Gas (MMcf)	Total (MBOE)
Proved Developed Reserves:				
December 31, 2018	521,579	219,730	1,330,852	963,118
December 31, 2017	442,364	189,434	1,629,451	903,373
December 31, 2016	343,515	126,928	1,215,861	673,085
Proved Undeveloped Reserves:				
December 31, 2018	43,431	21,184	127,722	85,902
December 31, 2017	40,525	21,063	122,429	81,993
December 31, 2016	34,681	10,013	48,868	52,840

Proved undeveloped reserves activity is as follows (in MBOE):

	Year Ended December 31, 2018
Beginning proved undeveloped reserves	81,993
Revisions of previous estimates	1,590
Extensions and discoveries	23,045
Transfers to proved developed	(20,726)
Ending proved undeveloped reserves	85,902

As of December 31, 2018, the Company had 134 proved undeveloped well locations as compared to 134 and 90 at December 31, 2017 and 2016, respectively. The Company has no proved undeveloped well locations that are scheduled to be drilled more than five years from their original date of booking.

The changes in proved undeveloped reserves during 2018 were comprised of the following items:

*Revisions of previous estimates*. Revisions of previous estimates were primarily comprised of 2 MMBOE of positive revisions that were related to pricing and technical revisions.

*Extensions and discoveries*. Extensions and discoveries were primarily comprised of proved reserve additions attributable to the Company's successful horizontal drilling program in the Spraberry/Wolfcamp oil field.

*Transfers to proved developed.* Transfers to proved developed reserves represented those undeveloped proved reserves that moved to proved developed as a result of development drilling. During 2018, the Company incurred \$949 million of development costs and developed 25 percent of its proved undeveloped reserves.

The Company uses both public and proprietary geologic data to establish continuity of the formation and its producing properties. This included seismic data and interpretations (2-D, 3-D and micro seismic); open hole log information (both vertical and horizontally collected) and petrophysical analysis of the log data; mud logs; gas sample analysis; drill cutting samples; measurements of total organic content; thermal maturity; sidewall cores and data measured from the Company's internal core analysis facility. After the geologic area was shown to be continuous, statistical analysis of existing producing wells was conducted to generate areas of reasonable certainty at distances from established production. As a result of this analysis, proved undeveloped reserves for drilling locations within these areas of reasonable certainty were recorded during 2018.

While the Company expects, based on Management's Price Outlooks, that future operating cash flows will provide adequate funding for future development of its proved undeveloped reserves over the next five years, it may also use any combination of internally-generated cash flows, cash and cash equivalents on hand, sales of short-term and long-term investments, availability under its credit facility, proceeds from divestitures of nonstrategic assets or external financing sources to fund these and other capital expenditures, including exploratory drilling and acquisitions.

The estimated timing and cash flows of developing proved undeveloped reserves are as follows:

	As of December 31, 2018								
	Estimated Future Production (MBOE)		iture Cash Inflows	P	Future roduction Costs	De	Future evelopment Costs		uture Net ash Flows
					(in mi	llion	s)		
Year Ended December 31, (a)									
2019	3,312	\$	162	\$	22	\$	283	\$	(143)
2020	7,867		348		59		220		69
2021	9,752		379		81		143		155
2022	11,562		444		96		197		151
2023	8,312		316		70		2		244
Thereafter (b)	45,097		1,819		505		11		1,303
	85,902	\$	3,468	\$	833	\$	856	\$	1,779

<sup>(</sup>a) Production and cash flows represent the drilling results from the respective year plus the incremental effects of proved undeveloped drilling beginning in 2019.

<sup>(</sup>b) The \$11 million of future development costs represents net abandonment costs in years beyond the forecasted years.

#### Standardized Measure of Discounted Future Net Cash Flows

The standardized measure of discounted future net cash flows is computed by applying commodity prices used in determining proved reserves (with consideration of price changes only to the extent provided by contractual arrangements) to the estimated future production of proved reserves less estimated future expenditures (based on year-end estimated costs) to be incurred in developing and producing the proved reserves, discounted using a rate of ten percent per year to reflect the estimated timing of the future cash flows. Future income taxes are calculated by comparing undiscounted future cash flows to the tax basis of oil and gas properties plus available carryforwards and credits and applying the current tax rates to the difference. The discounted future cash flow estimates do not include the effects of the Company's commodity derivative contracts.

Discounted future cash flow estimates like those shown below are not intended to represent estimates of the fair value of oil and gas properties. Estimates of fair value should also consider probable and possible reserves, anticipated future commodity prices, interest rates, changes in development and production costs and risks associated with future production. Because of these and other considerations, any estimate of fair value is necessarily subjective and imprecise.

The standardized measure of discounted future cash flows as well as a rollforward in total for each respective year are as follows:

	December 31,					
		2018		2017		2016
	(in millions)					
Oil and gas producing activities:						
Future cash inflows	\$	43,057	\$	31,716	\$	19,313
Future production costs		(16,800)		(13,304)		(10,462)
Future development costs (a)		(1,613)		(1,532)		(1,189)
Future income tax expense		(1,461)		(725)		(55)
		23,183		16,155		7,607
Ten percent annual discount factor		(11,850)		(8,004)		(3,417)
Standardized measure of discounted future cash flows	\$	11,333	\$	8,151	\$	4,190

<sup>(</sup>a) Includes \$621 million, \$639 million and \$603 million of undiscounted future asset retirement expenditures estimated as of December 31, 2018, 2017 and 2016, respectively, using current estimates of future abandonment costs. See Note 9 for additional information.

#### Changes in Standardized Measure of Discounted Future Net Cash Flows

Year Ended December 31,				
	2018	3 2017		2016
		(in millions	)	
\$	(3,673)	\$ (2,7	13) \$	(1,700)
	2,067	2,6	90	(284)
	(299)	(1	30)	39
	(283)	4	67	(50)
	1,163	7	70	552
	5,053	3,4	54	2,275
	177	1	39	142
	(287)	(	57)	(12)
	_		10	39
	3,918	4,6	30	1,001
	(736)	(6	69)	(55)
	3,182	3,9	61	946
	8,151	4,1	90	3,244
\$	11,333	\$ 8,1	51 \$	4,190
	\$	2018 \$ (3,673) 2,067 (299) (283) 1,163 5,053 177 (287) — 3,918 (736) 3,182 8,151	2018         2017           (in millions           \$ (3,673)         \$ (2,7           2,067         2,6           (299)         (1           (283)         4           1,163         7           5,053         3,4           177         1           (287)         (           —         3,918         4,6           (736)         (6           3,182         3,9           8,151         4,1	2018         2017           (in millions)         (3,673) \$ (2,713) \$           2,067         2,690           (299)         (130)           (283)         467           1,163         770           5,053         3,454           177         139           (287)         (57)           —         10           3,918         4,630           (736)         (669)           3,182         3,961           8,151         4,190

#### **Selected Quarterly Financial Results**

Selected quarterly financial results, with adjustments to conform to annual results, are as follows:

	Quarter							
		First		Second		Third		Fourth
			(in r	nillions, excep	t pe	er share data)		
Year Ended December 31, 2018:								
Oil and gas revenues	\$	1,266	\$	1,286	\$	1,317	\$	1,122
Derivative gains (losses), net	\$	(208)	\$	(358)	\$	(135)	\$	409
Total revenues and other income	\$	2,150	\$	2,111	\$	2,476	\$	2,677
Impairment of oil and gas properties (a)	\$	_	\$	77	\$	_	\$	_
Total costs and expenses	\$	1,922	\$	2,029	\$	1,947	\$	2,265
Net income attributable to common stockholders	\$	178	\$	66	\$	411	\$	324
Net income attributable to common stockholders per share:								
Basic	\$	1.04	\$	0.38	\$	2.40	\$	1.89
Diluted	\$	1.04	\$	0.38	\$	2.39	\$	1.89
Year Ended December 31, 2017:								
Oil and gas revenues	\$	809	\$	768	\$	855	\$	1,085
Derivative gains (losses), net	\$	151	\$	135	\$	(133)	\$	(254)
Total revenues and other income	\$	1,300	\$	1,462	\$	1,167		1,526
Impairment of oil and gas properties (b)	\$	285	\$	_	\$	_	\$	_
Total costs and expenses	\$	1,373	\$	1,108	\$	1,201	\$	1,464
Net income (loss) attributable to common stockholders	\$	(42)	\$	233	\$	(23)	\$	665
Net income (loss) attributable to common stockholders per share:								
Basic	\$	(0.25)	\$	1.36	\$	(0.13)	\$	3.88
Diluted	\$	(0.25)	\$	1.36	\$	(0.13)	\$	3.87

<sup>(</sup>a) During the second quarter of 2018, the Company impaired the carrying value of proved properties and related assets in the Raton Basin gas field (sold July 2018).

<sup>(</sup>b) During the first quarter of 2017, the Company impaired the carrying value of proved properties in the Raton Basin gas field (sold July 2018).

#### PIONEER NATURAL RESOURCES COMPANY

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

None.

#### ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures. The Company's management, with the participation of its principal executive officer and principal financial officer, have evaluated, as required by Rule 13a-15(b) under the Securities Exchange Act of 1934 ("the Exchange Act"), the effectiveness of the Company's disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Report. Based on that evaluation, the principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures were effective, as of the end of the period covered by this Report, in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including that such information is accumulated and communicated to the Company's management, including the principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

Changes in internal control over financial reporting. There have been no changes to the Company's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the three months ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed by or under the supervision of the Company's principal executive officer and principal financial officer and effected by the board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external purposes in accordance with generally accepted accounting principles.

The Company's management, with the participation of its principal executive officer and principal financial officer assessed the effectiveness, as of December 31, 2018, of the Company's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control — Integrated Framework (2013)," issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the assessment, management determined that the Company maintained effective internal control over financial reporting at a reasonable assurance level as of December 31, 2018, based on those criteria.

Ernst & Young LLP, the independent registered public accounting firm that audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. The report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, is included in this Item under the heading "Report of Independent Registered Public Accounting Firm."

#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Pioneer Natural Resources Company

#### **Opinion on Internal Control over Financial Reporting**

We have audited Pioneer Natural Resources Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Pioneer Natural Resources Company (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Pioneer Natural Resources Company as of December 31, 2018 and 2017, and the related consolidated statements of operations, equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and our report dated February 26, 2019 expressed an unqualified opinion thereon.

#### **Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

#### **Definition and Limitations of Internal Control Over Financial Reporting**

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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/ Ernst & Young LLP

Dallas, Texas February 26, 2019

#### PIONEER NATURAL RESOURCES COMPANY

#### ITEM 9B. OTHER INFORMATION

None.

#### **PART III**

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

The names of the executive officers of the Company and their ages, titles and biographies as of the date hereof are incorporated by reference from Part I of this Report. The other information required in response to this Item will be set forth in the Company's definitive proxy statement for the annual meeting of stockholders to be held in May 2019 and is incorporated herein by reference.

#### ITEM 11. EXECUTIVE COMPENSATION

The information required in response to this Item will be set forth in the Company's definitive proxy statement for the annual meeting of stockholders to be held in May 2019 and is incorporated herein by reference.

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

#### Securities Authorized for Issuance under Equity Compensation Plans

Summarized information about the Company's equity compensation plans is as follows:

		As of December 31, 201	8
	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in first column)
Equity compensation plans approved by security holders:			
2006 Long-Term Incentive Plan (b)(c)	131,630	\$ 99.39	4,853,384
Employee Stock Purchase Plan (d)	_	_	247,567
	131,630	\$ 99.39	5,100,951

<sup>(</sup>a) There are no outstanding warrants or equity rights awarded under the Company's equity compensation plans.

See Note 8 of Notes to Consolidated Financial Statements included in "Item 8. Financial Statements and Supplementary Data" for additional information.

The remaining information required in response to this Item will be set forth in the Company's definitive proxy statement for the annual meeting of stockholders to be held in May 2019 and is incorporated herein by reference.

<sup>(</sup>b) In May 2006, the stockholders of the Company approved the 2006 Long-Term Incentive Plan, which provided for the issuance of up to 9.1 million securities, as was supplementally approved by the stockholders of the Company in May 2009. In May 2016, the stockholders of the Company approved a 3.5 million increase in the number of securities available for issuance under the plan. Awards under the 2006 Long-Term Incentive Plan can be in the form of stock options, stock appreciation rights, performance units, restricted stock and restricted stock units.

<sup>(</sup>c) The number of securities remaining for future issuance has been reduced by the maximum number of shares that could be issued pursuant to outstanding grants of performance units as of December 31, 2018.

<sup>(</sup>d) The number of remaining securities available for future issuance under the Company's Employee Stock Purchase Plan is based on the aggregate authorized issuances of 1,250,000 shares less 1,002,433 cumulative shares issued through December 31, 2018.

#### PIONEER NATURAL RESOURCES COMPANY

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

The information required in response to this Item will be set forth in the Company's definitive proxy statement for the annual meeting of stockholders to be held in May 2019 and is incorporated herein by reference.

#### ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required in response to this Item will be set forth in the Company's definitive proxy statement for the annual meeting of stockholders to be held in May 2019 and is incorporated herein by reference.

#### **PART IV**

#### ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

#### (a) Listing of Financial Statements

#### Financial Statements

The following consolidated financial statements of the Company are included in "Item 8. Financial Statements and Supplementary Data:"

- Report of Independent Registered Pubic Accounting Firm
- Consolidated Balance Sheets as of December 31, 2018 and 2017
- Consolidated Statements of Operations for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Equity for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Notes to Consolidated Financial Statements
- Unaudited Supplementary Information

#### (b) Exhibits

The exhibits to this Report that are required to be filed pursuant to Item 15(b) are included in the Company's Form 10-K filed with the SEC on February 26, 2019.

#### (c) Financial Statement Schedules

No financial statement schedules are required to be filed as part of this Report or they are inapplicable.

#### <u>ITEM 16.</u> <u>10-K SUMMARY</u>

None.

#### SHAREHOLDER INFORMATION

#### STOCK EXCHANGE LISTING - COMMON STOCK

New York Stock Exchange: PXD

#### **CORPORATE INFORMATION**

Pioneer Natural Resources Company 5205 N. O'Connor Blvd., Suite 200 Irving, TX 75039 (972) 444-9001 pxd.com

#### STOCK TRANSFER AGENT AND REGISTRAR

Communication concerning the transfer or exchange of shares, dividend payments, lost certificates or change of address should be directed to:

Continental Stock Transfer & Trust Company
1 State St., 30th Floor
New York, NY 10004-1561
(888) 509-5581
continentalstock.com
pioneer@continentalstock.com

#### ANNUAL MEETING

The Annual Meeting of Stockholders will be held at 5205 N. O'Connor Blvd., Suite 250, Irving, TX 75039, on Thursday, May 16, 2019, at 9:00 a.m. Central Time.

#### INFORMATION REQUESTS

To receive additional copies of the Annual Report on Form 10-K as filed with the SEC or to obtain other Pioneer publications, please contact:

Pioneer Natural Resources Company
Attn: Investor Relations
5205 N. O'Connor Blvd., Suite 200
Irving, TX 75039
(972) 969-3583
ir@pxd.com

#### INVESTOR RELATIONS AND MEDIA CONTACTS

Shareholders, portfolio managers, brokers and securities analysts seeking information concerning Pioneer's operations or financial results are encouraged to contact Neal Shah, Vice President, Investor Relations, at (972) 969-3900. Media inquiries should be directed to Tadd Owens, Vice President, Communications and Government Relations, at (972) 969-5760.



