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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 8-K**

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**CURRENT REPORT**

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

Date of Report (Date of earliest event reported): February 25, 2019

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**Centennial Resource Development, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-37697**  
(Commission  
File Number)

**47- 5381253**  
(I.R.S. Employer Identification No.)

**1001 Seventeenth Street, Suite 1800**  
**Denver, Colorado 80202**  
(Address of principal executive offices, including zip code)  
**(720) 499-1400**

(Registrant's telephone number, including area code)

**Not applicable**  
(Former name or former address, if changed since last report)

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

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

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**Item 2.02 Results of Operations and Financial Condition.**

On February 25, 2019, Centennial Resource Development, Inc. (the “Company”) issued a press release announcing its financial and operational results for the year ended December 31, 2018, as well as full-year guidance for 2019. A copy of the press release is furnished as Exhibit 99.1 hereto.

The information furnished pursuant to this Item 2.02 and Item 7.01 shall not be deemed to be “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and will not be incorporated by reference into any filing under the Securities Act of 1933, as amended, unless specifically identified therein as being incorporated therein by reference.

**Item 7.01. Regulation FD Disclosure.**

The information set forth under Item 2.02 is incorporated herein by reference.

**Item 9.01. Financial Statements and Exhibits.**

(d) *Exhibits*

<b>Exhibit No.</b>	<b>Description</b>
<a href="#"><u>99.1</u></a>	<a href="#"><u>Press release dated February 25, 2019 of Centennial Resource Development, Inc.</u></a>

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**SIGNATURES**

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

CENTENNIAL RESOURCE DEVELOPMENT, INC.

By: /s/ GEORGE S. GLYPHIS

George S. Glyphis

*Vice President, Chief Financial Officer and Assistant Secretary*

Date: February 25, 2019



**Centennial Resource Development Announces Full Year 2018 Results,  
2018 Year-End Reserves and 2019 Guidance**

**DENVER, February 25, 2019 (GLOBE NEWSWIRE)** - Centennial Resource Development, Inc. (“Centennial” or the “Company”) (NASDAQ: CDEV) today announced 2018 financial and operational results and 2019 operational plans and targets.

**2018 Financial and Operational Highlights:**

- Increased daily oil and equivalent production volumes 81% and 92% year-over-year, respectively
- Announced solid well results from the Northern and Southern Delaware Basins, including successful delineation tests and Centennial’s best New Mexico well to date
- Increased total proved reserves 40% with organic reserve replacement ratio over 400%
- Maintained original capital expenditure budget
- Delivered unit costs at or below low-end of full year guidance ranges

**2019 Financial and Operational Plan:**

- Currently operating six-rig drilling program, a reduction from 2018
- Reduced total capital budget by 15% to \$845 million
- Expect to grow crude oil production approximately 12% year-over-year
- Plan flexible approach to operational activity depending on commodity prices
- Maintain focus on balance sheet and strong liquidity

**Financial Results**

Full year 2018 net income increased 165% to \$199.9 million, or \$0.75 per diluted share, compared to \$75.6 million, or \$0.32 per diluted share, in the prior year.

Fourth quarter crude oil production increased 11% to 39,978 barrels of oil per day (“Bbls/d”) compared to the prior quarter. For the full year 2018, average daily oil and total equivalent production volumes increased to 34,737 Bbls/d and 61,082 barrels of oil equivalent per day (“Boe/d”), or 81% and 92% compared to 2017, respectively.

“Centennial had a strong year accomplishing our operational goals. We stayed within our original capex budget, hit our production targets, added takeaway capacity and maintained cost control,” said Mark G. Papa, Chairman and Chief Executive Officer. “Importantly, we ended the year with a strong balance sheet while adding high-quality inventory.”

**Operational Update**

During 2018, Centennial successfully delineated and tested several new zones in the Northern and Southern Delaware Basins. In Reeves County, Texas, the Company confirmed the Third Bone Spring Sand interval, adding a substantial amount of high rate-of-return drilling locations. In Lea County, New Mexico, Centennial generated robust results from multiple zones, including the Avalon, First Bone Spring, Second Bone Spring and Wolfcamp A. Additionally, the

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Company added approximately 9,000 net acres through strategic bolt-on acquisitions and organic leasing, further adding high-quality inventory to its portfolio.

“Last year was exceptional from an inventory replacement standpoint. We added over 300 quality locations compared to 82 wells drilled in 2018,” said Papa. “Importantly, we accomplished this without issuing equity or exceeding our total capital expenditure budget, a feat few Permian E&P’s can match.”

During the fourth quarter, Centennial reported solid results from eight distinct intervals across the Delaware Basin. In Lea County, the Raider Federal 301H and 101H (100% WI) were drilled with approximately 4,250 foot laterals in the First Bone Spring Sand and Avalon Shale, respectively. The initial 30-day production rate for the Raider Federal 301H was 1,729 Boe/d (84% oil), while the Raider Federal 101H reported 1,260 Boe/d (76% oil). Initial 30-day oil production rates for the wells were 337 and 228 Bbls/d per 1,000 foot of lateral, respectively.

“The Raider Federal wells, which were follow-up tests to our Pirate State discovery, successfully delineated this portion of our acreage and proved-up new zones in the First Bone Spring and Avalon,” said Papa. “Having confirmed these intervals, we expect to achieve comparable drilling results on this acreage in the future.”

Also in New Mexico, the Airstream 24 State Com 502H (78% WI) was completed in early January targeting the Second Bone Spring with an approximate 10,000 foot effective lateral. The well had an initial 30-day production rate of 2,385 Boe/d (83% oil), or 198 Bbls/d of oil per 1,000 foot of lateral.

“The Airstream produced over 52,000 barrels of oil during its first thirty days. This is our best New Mexico oil well to date,” said Papa. “We’ve drilled approximately 20 wells, since integrating this asset in late 2017, and essentially all have either met or exceeded our expectations.”

Centennial reported strong wells from multiple intervals in Reeves County. The Barracuda B U47H (63% WI) was drilled with an effective lateral of approximately 9,800 feet in the Upper Wolfcamp A interval. The well achieved an initial 30-day production rate of 1,807 Boe/d (83% oil) and averaged 153 Bbls/d of oil per 1,000 foot of lateral, producing over 43,000 cumulative barrels of oil during this period. On the Company’s Miramar acreage, the Wolfman C45H (100% WI), completed in the Wolfcamp C with an effective lateral length of approximately 7,900 feet delivered 2,038 Boe/d (46% oil) for the initial 30-day production period. On the southernmost portion of its Reeves County acreage position, the Mercedes L49H (100% WI) was drilled with an approximate 4,800 foot effective lateral targeting the Wolfcamp B interval. The well reported an initial 30-day production rate of 1,058 Boe/d (85% oil), with 188 Bbls/d of oil per 1,000 foot of lateral.

“The Wolfman and Mercedes wells were strong delineation tests. These wells increase our confidence level in the potential upside of lower Wolfcamp zones on our acreage,” said Papa. “The Mercedes well is especially encouraging, it’s our first Wolfcamp B result in the very southern portion of our Reeves County acreage. This sets us up for further inventory expansion in the area.”

Total capital expenditures incurred for the year were \$997.2 million. During 2018, drilling and completion (“D&C”) capital expenditures incurred were \$766.1 million. Centennial’s facilities, infrastructure and other totaled \$201.1 million for the year, with an additional \$30.0 million spent on land.

“Overall, the team showed tremendous capital discipline during 2018. We hit the mid-point of our original D&C guidance and stayed within our overall capital expenditure ranges provided last February,” said Papa.

## **2019 Operational Plans and Targets**

Centennial will continue its focus on maintaining a strong balance sheet during the current commodity price environment. As a result,

Centennial recently reduced its operated rig program to six, compared to seven in 2018. Assuming current activity levels, the Company is targeting crude oil production growth of 12% during 2019.

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“Centennial has significantly reduced its current operating plan compared to our previous high-growth estimates and plans to remain flexible in terms of drilling activity this year. In today’s relatively weak commodity price environment, we value balance sheet protection and financial discipline more than production growth,” said Papa. “We are preserving our inventory with the goal of resuming Centennial’s growth trajectory when the macro environment improves.”

Current plans are to operate a six-rig drilling program with an estimated 2019 total capital budget of \$765 million to \$925 million, which represents a reduction of 15% compared to 2018. Total D&C costs are estimated to be \$625 million to \$725 million, of which approximately 92% is associated with operated activity. To support future production growth and full-field development, Centennial has allocated approximately \$120 million to \$160 million to facilities, infrastructure and other, which includes production facilities, saltwater disposal wells, water pipeline infrastructure and seismic, among other capitalized items.

During 2019, Centennial expects to operate between four and five rigs in Reeves County. The Company will focus its Reeves County activity in the Upper Wolfcamp A zone, while continuing to develop and test additional zones, including the Bone Spring. The remaining operated rig(s) and associated D&C capital will be allocated to its Lea County position. (For a detailed table summarizing Centennial’s 2019 operational and financial guidance, please see the Appendix of this press release.)

### **Year-End 2018 Proved Reserves**

Centennial reported a 40% increase in year-end 2018 total proved reserves to 262 MMBoe, consisting of 54% oil, 26% natural gas and 20% natural gas liquids. Proved developed reserves increased by 55% to 117 MMBoe (44% of total proved reserves) as of December 31, 2018, reflecting the continued successful development of the Company’s horizontal well inventory. For 2018, Centennial’s organic reserve replacement ratio was 421%. The Company’s 2018 proved developed finding and development cost totaled \$14.65 per Boe. Centennial’s drill-bit finding and development cost was \$10.06 per Boe for 2018. Using SEC prices and discounting the present value at 10% (“PV 10”), the value of Centennial’s total proved reserves at December 31, 2018 increased 70% to \$3.0 billion, and Centennial had a standardized measure of discounted future net cash flows of \$2.5 billion. Netherland Sewell & Associates, Inc., an independent reserve engineering firm, prepared Centennial’s year-end reserves estimates as of December 31, 2018. (For additional information relating to our reserves, in addition to an explanation of how we calculate and use the organic reserve replacement ratio and finding and development costs, please see the Appendix of this press release.)

### **Capital Structure and Liquidity**

As of December 31, 2018, Centennial had \$18 million in cash on hand and \$700 million of long-term debt, inclusive of \$300 million outstanding under its revolving credit facility and \$400 million of senior unsecured notes. Centennial’s total liquidity was \$517 million, based on the Company’s \$800 million of elected commitments under its revolving credit facility and letters of credit outstanding as of December 31, 2018.

### **Hedge Position**

As of February 25, 2019, Centennial’s crude oil hedge portfolio consisted only of basis swaps. For 2019, Centennial’s crude oil basis swaps represent approximately 21% of its expected crude oil production (using the mid-point of guidance) at a weighted average price of \$(6.88) per barrel. In addition, Centennial has in place natural gas swaps and basis hedges for 2019. (For a summary table of Centennial’s derivative contracts as of December 31, 2018, please see the Appendix to this press release.)

“In addition to securing crude oil takeaway, Centennial is one of the few mid-cap E&Ps to secure egress out of the Permian Basin for essentially all of its residue natural gas volumes,” said Papa. “As a result, we have not experienced any material amounts of natural gas flaring to date and do not expect to in the future.”

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## Annual Report on Form 10-K

Centennial's financial statements and related footnotes will be available in its Annual Report on Form 10-K for the year ended December 31, 2018, which is expected to be filed with the U.S. Securities and Exchange Commission ("SEC") on February 25, 2019.

## Conference Call and Webcast

Centennial will host an investor conference call on Tuesday, February 26, 2019 at 8:00 a.m. Mountain (10:00 a.m. Eastern) to discuss fourth quarter and full year 2018 operating and financial results. Interested parties may join the webcast by visiting Centennial's website at [www.cdevinc.com](http://www.cdevinc.com) and clicking on the webcast link or by dialing (800) 789-3525, or (442) 268-1041 for international calls, (Conference ID: 6886106) at least 15 minutes prior to the start of the call. A replay of the call will be available on Centennial's website or by phone at (855) 859-2056 (Conference ID: 6886106) for a 14-day period following the call.

## About Centennial Resource Development, Inc.

Centennial Resource Development, Inc. is an independent oil and natural gas company focused on the development of unconventional oil and associated liquids-rich natural gas reserves in the Permian Basin. The Company's assets and operations, which are held and conducted through Centennial Resource Production, LLC, are concentrated in the Delaware Basin, a sub-basin of the Permian Basin. For additional information about the Company, please visit [www.cdevinc.com](http://www.cdevinc.com).

## Cautionary Note Regarding Forward-Looking Statements

The information in this press release includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact included in this press release, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this press release, the words "could," "believe," "anticipate," "intend," "estimate," "expect," "project," "goal," "plan," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on management's current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events.

Forward-looking statements may include statements about:

- our business strategy and future drilling plans;
  - our reserves and our ability to replace the reserves we produce through drilling and property acquisitions;
  - our drilling prospects, inventories, projects and programs;
  - our financial strategy, liquidity and capital required for our development program;
  - our realized oil, natural gas and NGL prices;
  - the timing and amount of our future production of oil, natural gas and NGLs;
  - our hedging strategy and results;
  
  - our competition and government regulations;
  - our ability to obtain permits and governmental approvals;
  - our pending legal or environmental matters;
  - the marketing and transportation of our oil, natural gas and NGLs;
  - our leasehold or business acquisitions;
  - cost of developing our properties;
  - our anticipated rate of return;
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- general economic conditions;
- credit markets;
- uncertainty regarding our future operating results;
- our plans, objectives, expectations and intentions contained in this press release that are not historical; and
- the other factors described in our Annual Report on Form 10-K for the year ended December 31, 2018, and any updates to those factors set forth in our subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

We caution you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond our control, incident to the development, production, gathering and sale of oil and natural gas. These risks include, but are not limited to, commodity price volatility, inflation, lack of availability of drilling and production equipment and services, environmental risks, drilling and other operating risks, regulatory changes, the uncertainty inherent in estimating reserves and in projecting future rates of production, cash flow and access to capital, the timing of development expenditures and the other risks described in our filings with the SEC.

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

Should one or more of the risks or uncertainties described in this press release occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements. All forward-looking statements, expressed or implied, included in this press release are expressly qualified in their entirety by this cautionary statement. This cautionary statement should also be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue.

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

**Contact:**

Hays Mabry  
Director, Investor Relations  
(832) 240-3265  
ir@cdevinc.com

SOURCE Centennial Resource Development, Inc.

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Details of our 2019 operational and financial guidance are presented below:

	<b>2019 FY Guidance</b>		
<b>Net average daily production (Boe/d)</b>	<b>61,500</b>	—	<b>70,500</b>
Oil net average daily production (Bbls/d)	36,500	—	41,500
<b>Production costs</b>			
Lease operating expenses (\$/Boe)	\$4.35	—	\$4.95
Gathering, processing and transportation expenses (\$/Boe)	\$2.75	—	\$3.25
Depreciation, depletion, and amortization (\$/Boe)	\$15.50	—	\$17.50
Cash general and administrative (\$/Boe)	\$2.25	—	\$2.75
Non-cash stock-based compensation (\$/Boe)	\$1.00	—	\$1.20
Severance and ad valorem taxes (% of revenue)	5.5%	—	7.5%
<b>Capital expenditure program (\$MM)</b>			
Drilling and completion capital expenditure	\$625	—	\$725
Facilities, infrastructure and other	\$120	—	\$160
Land	\$20	—	\$40
<b>Operated drilling program</b>			
Wells spud (gross)	70	—	80
Wells completed (gross)	65	—	75
Average working interest	80%	—	90%
Average lateral length (Feet)	7,250	—	7,750

**Centennial Resource Development, Inc.**  
**Operating Highlights**

	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2018	2017	2018	2017
<b>Net operating revenues (in thousands):</b>				
Oil sales	\$ 176,306	\$ 132,229	\$ 709,813	\$ 336,931
Natural gas sales	15,713	15,642	62,325	48,868
NGL sales	30,485	18,259	118,907	44,103
Oil and gas sales	<u>\$ 222,504</u>	<u>\$ 166,130</u>	<u>\$ 891,045</u>	<u>\$ 429,902</u>
<b>Average sales price:</b>				
Oil (per Bbl)	\$ 47.95	\$ 52.45	\$ 55.98	\$ 48.17
Effect of derivative settlements on average price (per Bbl)	1.41	(0.37)	1.48	(0.06)
Oil net of hedging (per Bbl)	<u>\$ 49.36</u>	<u>\$ 52.08</u>	<u>\$ 57.46</u>	<u>\$ 48.11</u>
<b>Average NYMEX price for oil (per Bbl)</b>				
Average NYMEX price for oil (per Bbl)	\$ 58.81	\$ 55.31	\$ 64.76	\$ 50.88
Oil differential from NYMEX	(10.86)	(2.86)	(8.78)	(2.71)
<b>Average NYMEX price for natural gas (per Mcf)</b>				
Natural gas (per Mcf)	\$ 1.82	\$ 2.69	\$ 1.97	\$ 2.75
Effect of derivative settlements on average price (per Mcf)	0.12	—	0.06	—
Natural gas net of hedging (per Mcf)	<u>\$ 1.94</u>	<u>\$ 2.69</u>	<u>\$ 2.03</u>	<u>\$ 2.75</u>
<b>Average NYMEX price for natural gas (per Mcf)</b>				
Average NYMEX price for natural gas (per Mcf)	\$ 3.77	\$ 2.91	\$ 3.15	\$ 3.02
Natural gas differential from NYMEX	(1.95)	(0.22)	(1.18)	(0.27)
<b>NGL (per Bbl)</b>				
NGL (per Bbl)	\$ 23.60	\$ 31.16	\$ 27.45	\$ 26.28
<b>Net production:</b>				
Oil (MBbls)	3,678	2,521	12,679	6,994
Natural gas (MMcf)	8,615	5,816	31,707	17,754
NGL (MBbls)	1,292	586	4,332	1,678
Total (MBoe) <sup>(1)</sup>	<u>6,404</u>	<u>4,076</u>	<u>22,295</u>	<u>11,630</u>
<b>Average daily net production volume:</b>				
Oil (Bbls/d)	39,978	27,402	34,737	19,161
Natural gas (Mcf/d)	93,641	63,217	86,868	48,640
NGL (Bbls/d)	14,043	6,370	11,868	4,596
Total (Boe/d) <sup>(1)</sup>	<u>69,609</u>	<u>44,304</u>	<u>61,082</u>	<u>31,864</u>

<sup>(1)</sup> Calculated by converting natural gas to oil equivalent barrels at a ratio of six Mcf of natural gas to one Bbl of oil.

**Centennial Resource Development, Inc.**  
**Operating Expenses**

	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2018	2017	2018	2017
<b>Operating costs (in thousands):</b>				
Lease operating expenses	\$ 24,149	\$ 14,412	\$ 83,313	\$ 41,336
Severance and ad valorem taxes	13,732	8,815	56,523	23,173
Gathering, processing, and transportation expense	12,410	11,687	57,624	34,259
<b>Operating costs per Boe:</b>				
Lease operating expenses	\$ 3.77	\$ 3.54	\$ 3.74	\$ 3.55
Severance and ad valorem taxes	2.14	2.16	2.54	1.99
Gathering, processing, and transportation expense	1.94	2.87	2.58	2.95

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**Centennial Resource Development, Inc.**  
**Condensed Consolidated Statements of Operations**  
(in thousands, except per share data)

	For the Three Months Ended December 31,		Year Ended December 31,	
	2018	2017	2018	2017
Operating revenues				
Oil and gas sales	\$ 222,504	\$ 166,130	\$ 891,045	\$ 429,902
Operating expenses				
Lease operating expenses	24,149	14,412	83,313	41,336
Severance and ad valorem taxes	13,732	8,815	56,523	23,173
Gathering, processing and transportation expenses	12,410	11,687	57,624	34,259
Depreciation, depletion and amortization	102,083	58,781	326,462	161,628
Impairment and abandonment expense	740	—	11,136	(29)
Exploration expense	1,942	10,281	9,968	14,373
General and administrative expenses	18,637	13,865	63,304	49,882
Total operating expenses	173,693	117,841	608,330	324,622
Income (loss) from operations	48,811	48,289	282,715	105,280
Other income (expense)				
Gain (loss) on sale of oil and natural gas properties	549	1,580	475	8,796
Interest expense	(8,220)	(3,597)	(26,358)	(5,729)
Net gain (loss) on derivative instruments	367	(254)	15,336	5,138
Other income	12	—	8	—
Other income (expense)	(7,292)	(2,271)	(10,539)	8,205
Income (loss) before income taxes	41,519	46,018	272,176	113,485
Income tax (expense) benefit	(8,711)	(12,628)	(59,440)	(29,930)
Net income (loss)	32,808	33,390	212,736	83,555
Less: Net income (loss) attributable to noncontrolling interest	1,828	2,854	12,837	7,987
Net income (loss) attributable to common shareholders	\$ 30,980	\$ 30,536	\$ 199,899	\$ 75,568
Income (loss) per share of Class A Common Stock:				
Basic	\$ 0.12	\$ 0.12	\$ 0.76	\$ 0.32
Diluted	\$ 0.12	\$ 0.12	\$ 0.75	\$ 0.32

## Non-GAAP Financial Measure

Adjusted EBITDAX is a supplemental non-GAAP financial measure that is used by management and external users of our consolidated financial statements, such as industry analysts, investors, lenders and rating agencies. We define Adjusted EBITDAX as net income (loss) before interest expense, income taxes, depreciation, depletion and amortization, impairment and abandonment expense, non-cash gains or losses on derivatives, non-cash stock-based compensation, exploration costs, transaction costs and gains and losses from the sale of assets. Adjusted EBITDAX is not a measure of net income as determined by generally accepted accounting principles ("GAAP").

Our management believes Adjusted EBITDAX is useful as it allows them to more effectively evaluate our operating performance and compare the results of our operations from period to period and against our peers without regard to our financing methods or capital structure. We exclude the items listed above from net income in arriving at Adjusted EBITDAX because these amounts can vary substantially from company to company within our industry depending upon accounting methods and book values of assets, capital structures and the method by which the assets were acquired. Adjusted EBITDAX should not be considered as an alternative to, or more meaningful than, net income as determined in accordance with GAAP or as an indicator of our operating performance or liquidity. Certain items excluded from Adjusted EBITDAX are significant components in understanding and assessing a company's financial performance, such as a company's cost of capital and tax structure, as well as the historic costs of depreciable assets, none of which are components of Adjusted EBITDAX. Our presentation of Adjusted EBITDAX should not be construed as an inference that our results will be unaffected by unusual or non-recurring items. Our computations of Adjusted EBITDAX may not be comparable to other similarly titled measures of other companies.

The following table presents a reconciliation of Adjusted EBITDAX to net income, our most directly comparable financial measure calculated and presented in accordance with GAAP:

(in thousands)	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2018	2017	2018	2017
<b>Adjusted EBITDAX reconciliation to net income:</b>				
Net income (loss) attributable to common shareholders	\$ 30,980	\$ 30,536	\$ 199,899	\$ 75,568
Net income (loss) attributable to noncontrolling interest	1,828	2,854	12,837	7,987
Interest expense	8,220	3,597	26,358	5,729
Income tax expense (benefit)	8,711	12,628	59,440	29,930
Depreciation, depletion and amortization	102,083	58,781	326,462	161,628
Impairment and abandonment expense	740	—	11,136	(29)
Non-cash portion of derivative (gain) loss	5,853	(679)	5,274	(5,805)
Stock-based compensation expense	5,848	3,862	18,854	12,150
Exploration expense	1,942	10,281	9,968	14,373
Transaction costs	—	68	—	1,454
(Gain) loss on sale of oil and natural gas properties	(549)	(1,580)	(475)	(8,796)
<b>Adjusted EBITDAX</b>	<b>\$ 165,656</b>	<b>\$ 120,348</b>	<b>\$ 669,753</b>	<b>\$ 294,189</b>

The following table summarizes our estimated proved reserves, pre-tax PV 10, and standardized measure of discounted future cash flows as of December 31, 2018, 2017 and 2016:

	December 31, 2018	December 31, 2017	December 31, 2016
<b>Proved developed reserves:</b>			
Oil (MBbls)	63,317	41,786	14,551
Natural gas (MMcf)	180,542	126,065	42,190
NGL (MBbls)	23,093	12,133	3,618
Total proved developed reserves (MBoe) <sup>(1)</sup>	116,500	74,929	25,200
<b>Proved undeveloped reserves:</b>			
Oil (MBbls)	79,449	59,147	31,914
Natural gas (MMcf)	222,310	201,147	106,154
NGL (MBbls)	28,825	18,853	8,152
Total proved undeveloped reserves (MBoe) <sup>(1)</sup>	145,326	111,525	57,759
<b>Total proved reserves:</b>			
Oil (MBbls)	142,766	100,933	46,466
Natural gas (MMcf)	402,852	327,212	148,344
NGL (MBbls)	51,918	30,986	11,770
Total proved reserves (MBoe) <sup>(1)</sup>	261,826	186,454	82,959
Proved developed reserves %	44%	40%	30%
Proved undeveloped reserves %	56%	60%	70%
<b>Reserve values (in millions):</b>			
Standard measure of discounted future net cash flows	\$ 2,479.9	\$ 1,503.3	\$ 375.1
Discounted future income tax expense	499.6	244.8	52.4
Total proved pre-tax PV 10% <sup>(2)</sup>	\$ 2,979.5	\$ 1,748.1	\$ 427.5

<sup>(1)</sup> Calculated by converting natural gas to oil equivalent barrels at a ratio of six Mcf of natural gas to one Bbl of oil.

<sup>(2)</sup> Pre-tax PV 10% may be considered a non-GAAP financial measure as defined by the SEC and is derived from the standardized measure of discounted future net cash flows (the "Standardized Measure"), which is the most directly comparable GAAP financial measure. Pre-tax PV 10% is computed on the same basis as the Standardized Measure but without deducting future income taxes. We believe pre-tax PV 10% is a useful measure for investors when evaluating the relative monetary significance of our oil and natural gas properties. We further believe investors may utilize our pre-tax PV 10% as a basis for comparison of the relative size and value of our proved reserves to other companies because many factors that are unique to each individual company impact the amount of future income taxes to be paid. Our management uses this measure when assessing the potential return on investment related to our oil and gas properties and acquisitions. However, pre-tax PV 10% is not a substitute for the Standardized Measure. Our pre-tax PV 10% and Standardized Measure do not purport to present the fair value of our proved oil, NGL and natural gas reserves.



The following table summarizes the terms of the swap contracts the Company had in place as of December 31, 2018:

	<b>Period</b>	<b>Volume (Bbls)</b>	<b>Volume (Bbls/d)</b>	<b>Weighted Average Differential (\$/Bbl) <sup>(1)</sup></b>
Crude Oil Basis Swaps	January 2019 - March 2019	540,000	6,000	\$ (5.34)
	April 2019 - June 2019	91,000	1,000	(10.00)
	July 2019 - September 2019	1,380,000	15,000	(9.03)
	October 2019 - December 2019	920,000	10,000	(4.24)

<sup>(1)</sup> The oil basis swap transactions are settled based on the difference between the arithmetic average of the ARGUS MIDLAND WTI and ARGUS WTI CUSHING indices, during the relevant calculation period.

	<b>Period</b>	<b>Volume (MMBtu)</b>	<b>Volume (MMBtu/d)</b>	<b>Weighted Average Fixed Price (\$/MMBtu) <sup>(1)</sup></b>
Natural Gas Swaps - Henry Hub	January 2019 - December 2019	10,950,000	30,000	\$ 2.78
Natural Gas Swaps - West Texas WAHA	January 2019 - December 2019	5,475,000	15,000	1.61

	<b>Period</b>	<b>Volume (MMBtu)</b>	<b>Volume (MMBtu/d)</b>	<b>Weighted Average Differential (\$/MMBtu) <sup>(2)</sup></b>
Natural Gas Basis Swaps	January 2019 - December 2019	12,775,000	35,000	\$ (1.31)

<sup>(1)</sup> The natural gas swap contracts are settled based on either i) the NYMEX Henry Hub price or ii) the Inside FERC West Texas WAHA price of natural gas as of the specified settlement date, as applicable.

<sup>(2)</sup> The natural gas basis swap contracts are settled based on the difference between Inside FERC's West Texas WAHA price and the NYMEX price of natural gas during the relevant calculation period.

## **Supplemental Measures**

### **Organic Reserve Replacement Ratio**

The Company uses the organic reserve replacement ratio as an indicator of the Company's ability to replace the reserves that it has developed and to increase its reserves over time. The ratio is not a representation of value creation and has a number of limitations that should be considered. For example, the ratio does not incorporate the costs or timing of developing future reserves. The organic reserve replacement ratio of 421% is calculated as the sum of total 2018 reserve extensions, discoveries and revisions (technical and pricing) of 93.8 MMBoe, divided by total 2018 production of 22.3 MMBoe. The ratio calculation excludes acquisitions and divestitures.

### **Proved Developed and Drill-Bit Finding and Development ("F&D") Costs**

The Company uses proved developed F&D cost and drill-bit F&D cost as indicators of capital efficiency, in that they measure the Company's costs to add proved reserves on a per Boe basis. Both calculations exclude acquisitions and divestitures and are subject to limitations, including the uncertainty of future costs to develop the Company's reserves.

Proved developed F&D of \$14.65 per Boe is calculated as total 2018 exploration and developments costs of \$943.6 million divided by the sum of total proved developed reserve extensions and discoveries, transfers from proved undeveloped reserves at year-end 2017, and proved developed reserve revisions (technical and pricing), totaling 64.4 MMBoe.

Drill-bit F&D of \$10.06 per Boe is calculated as total 2018 exploration and developments costs of \$943.6 million divided by the sum of total 2018 proved reserve extensions, discoveries and revisions (technical and pricing) of 93.8 MMBoe.