UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

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

Black Stone Minerals, L.P.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

001-37362 (Commission File Number) **47-1846692** (I.R.S. Employer Identification No.)

1001 Fannin Street, Suite 2020 Houston, Texas (Address of principal executive offices)

77002 (Zip code)

Registrant's telephone number, including area code: (713) 445-3200

Not Applicable

(Former name or former address, if changed since last report)

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:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o 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 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 o

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. o

The information in this Current Report, including the exhibit attached hereto as Exhibit 99.1, is being furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section. The information in this Current Report shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, except as otherwise expressly stated in such filing.

Item 2.02 Results of Operations and Financial Condition

On February 25, 2019, Black Stone Minerals, L.P. ("Black Stone Minerals") issued a press release that announced its fourth-quarter 2018 and full-year 2018 financial and operating results. A copy of the press release is furnished herewith as Exhibit 99.1.

Item 7.01 Regulation FD Disclosure

On February 25, 2019, Black Stone Minerals provided summary guidance for 2019. This information is contained in the press release included in this report as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit Number	Description
<u>99.1</u>	Black Stone Minerals Press Release, dated February 25, 2019

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.

BLACK STONE MINERALS, L.P.

By: Black Stone Minerals GP, L.L.C., its general partner

Date: February 25, 2019

By: /s/ Steve Putman

Steve Putman Senior Vice President, General Counsel, and Secretary

Exhibit Index

Exhibit Number

<u>99.1</u>

Description Black Stone Minerals Press Release, dated February 25, 2019



Black Stone Minerals, L.P. Announces Fourth Quarter and Full Year 2018 Results; Provides Guidance for 2019

HOUSTON--(BUSINESS WIRE) - Black Stone Minerals, L.P. (NYSE: BSM) ("Black Stone Minerals," "Black Stone," or "the Partnership") today announces its financial and operating results for the fourth quarter and full year of 2018 and provides guidance for 2019.

Fourth Quarter 2018 Highlights

- Set a new quarterly total reported production record in the fourth quarter of 49.7 MBoe/d, representing a 3% increase from the third quarter and a 30% increase from the fourth quarter of 2017.
- Mineral and royalty production increased 9% from the third quarter of 2018, marking a new record of 35.8 MBoe/d.
- Recognized net income and Adjusted EBITDA for the quarter of \$164.1 million and \$110.0 million, respectively.
- Reported distributable cash flow of \$96.7 million, resulting in distribution coverage for all units of 1.3x based on the announced cash distribution of \$0.37 per unit; retained \$20.8 million of distributable cash in the fourth quarter.

Other Financial and Operational Highlights

- Achieved full year 2018 production, net income, and Adjusted EBITDA of 46.3 MBoe/d, \$295.6 million, and \$419.4 million, respectively.
- Mineral and royalty volumes in 2018 increased 45% over the prior year to average 32.1 MBoe/d.
- Closed on \$149.9 million of acquisitions in 2018 focused on East Texas Haynesville/Bossier and core Midland/Delaware plays.
- Reported estimated proved reserves at year-end 2018 of 69.9 MMBoe (75% natural gas and 86% proved developed producing), an increase of 3% over year-end 2017.
- Expect to maintain 2018's average daily production levels through 2019, with mineral and royalty production anticipated to grow by approximately 12% year over year at mid-point of guidance.

Management Commentary

Thomas L. Carter, Jr., Black Stone Minerals' Chief Executive Officer and Chairman commented, "We capped off a terrific year with another strong quarter. We posted new records for both mineral-and-royalty production and total production in the fourth quarter and maintained our distribution with solid coverage in a challenging commodity environment. Our core mineral and royalty business performed extremely well, more than offsetting our planned reduction in working interest volumes. We acquired approximately \$150 million worth of properties during the year, and the Noble assets acquired at the end of 2017 continue to outperform our original expectations. The Partnership grew distributions for both common and subordinated unitholders throughout the year, while retaining almost \$100 million of our distributable cash flow that largely funded our acquisition program for the year in a period where access to the capital markets was challenged. Building on these accomplishments from 2018, we expect continued growth in our mineral and royalty business in 2019. We also expect to fully convert the subordinated units to common units in May with the payment of the distribution attributable to the first quarter of 2019, which will result in a simplified capital structure. We are well positioned with a fantastic set of assets, strong financial footing, and an experienced management team. In addition to our organic growth driven by our strategic positions in the Permian and Haynesville, we are excited about additional mineral consolidation opportunities we see in the near term."

Quarterly Financial and Operating Results

Production

Black Stone Minerals reported average production of 49.7 MBoe/d (72% mineral and royalty, 71% natural gas) for the fourth quarter of 2018, representing a sequential increase of 3% and a year over year increase of 30% from the corresponding period in 2017. Mineral and royalty volumes grew by 9% from the levels reported in the third quarter of 2018, while working interest



volumes decreased by 9% over the same period. Year over year, mineral and royalty volumes grew 45% in 2018, driven primarily by increases on existing acreage; excluding the Noble acquisition completed in November 2017, base mineral and royalty production grew 31% from 2017 to 2018. Working interest production declined by 5% year over year as a result of the farmouts put in place in 2017.

Realized Prices, Revenues, and Net Income

The Partnership's average realized price per Boe, excluding the effect of derivative settlements, was \$33.97 for the quarter ended December 31, 2018. This is an increase of 4% from \$32.81 per Boe from the third quarter of 2018 and a 20% increase compared to \$28.21 for the fourth quarter of 2017.

Black Stone reported oil and gas revenue of \$155.4 million (50% oil and condensate) for the fourth quarter of 2018, an increase of 7% from \$145.8 million in the third quarter of 2018. Oil and gas revenue in the fourth quarter of 2017 was \$98.9 million.

The Partnership reported a gain on commodity derivative instruments of \$83.0 million for the fourth quarter of 2018, composed of a \$17.8 million loss from realized settlements and a non-cash \$100.8 million unrealized gain due to the change in value of Black Stone's derivative positions during the quarter. Black Stone reported losses on commodity derivative instruments of \$18.5 million and \$8.5 million for the quarters ended September 30, 2018 and December 31, 2017, respectively.

Lease bonus and other income was \$7.6 million for the fourth quarter of 2018, compared to \$12.4 million for the third quarter of 2018. For the quarter ended December 31, 2017, Black Stone reported lease bonus and other income of \$5.0 million.

The Partnership reported net income of \$164.1 million for the quarter ended December 31, 2018, compared to net income of \$60.8 million in the preceding quarter. For the quarter ended December 31, 2017, net income was \$19.4 million.

Adjusted EBITDA and Distributable Cash Flow

Adjusted EBITDA for the fourth quarter of 2018 was \$110.0 million, which compares to \$114.2 million in the third quarter of 2018 and \$79.5 million in the fourth quarter of 2017. Distributable cash flow for the quarter ended December 31, 2018 was \$96.7 million. For the quarters ended September 30, 2018 and December 31, 2017, distributable cash flow was \$100.8 million and \$69.4 million, respectively.

Acquisitions

Black Stone acquired \$17.8 million of properties during the fourth quarter of 2018, substantially all of which were purchased using cash. The vast majority of the quarter's activity related to the Partnership's ongoing bolt-on acquisition program in the Shelby Trough area of East Texas. For the full year, Black Stone Minerals completed \$149.9 million in acquisitions (85% of which were completed using cash) focused on East Texas and the Permian Basin.

2018 Proved Reserves

Estimated proved oil and natural gas reserves at year-end 2018 were 69.9 MMBoe, an increase of 3% from 67.9 MMBoe at year-end 2017, and were approximately 75% natural gas and 86% proved developed producing. The standardized measure of discounted future net cash flows was \$1,087.6 million at the end of 2018 as compared to \$862.6 million at year-end 2017.

Netherland, Sewell and Associates, Inc., an independent petroleum engineering firm, evaluated Black Stone Minerals' estimate of its proved reserves and PV-10 at December 31, 2018. These estimates were prepared using reference prices of \$65.56 per barrel of oil and \$3.10 per MMBTU of natural gas in accordance with the applicable rules of the Securities and Exchange Commission. These prices were adjusted for quality and market differentials, transportation fees, and in the case of natural gas, the value of natural gas liquids. A reconciliation of proved reserves is presented in the summary financial tables following this press release.

Financial Position and Activities

As of December 31, 2018, Black Stone Minerals had \$5.4 million in cash and \$410.0 million outstanding under its credit facility. The Partnership's borrowing base at December 31, 2018 was \$675 million, and the Partnership's next regularly scheduled borrowing base redetermination is set for April 2019. Black Stone is in compliance with all financial covenants associated with its credit facility.

As of February 22, 2019, \$381.0 million was outstanding under the credit facility and the Partnership had \$12.1 million in cash.

The Partnership established an at-the-market ("ATM") offering program in 2017. Early in the fourth quarter of 2018, Black Stone sold 122,132 common units under the ATM program at an average price of \$18.36 per unit. Through the ATM program, Black Stone can sell common units into the open market from time to time. As of December 31, 2018, the Partnership had approximately \$27 million of remaining availability in the ATM program.

During the fourth quarter of 2018, the Board of Directors authorized a \$75 million unit repurchase program. Late in the quarter, the Partnership repurchased 128,627 common units at an average price of \$15.61 per unit.

Fourth Quarter 2018 Distributions

As previously announced, the Board of Directors of the general partner approved a cash distribution of \$0.37 for each common and subordinated unit attributable to the fourth quarter of 2018. The quarterly distribution coverage ratio attributable to the fourth quarter of 2018 was approximately 1.3x for all units. These distributions will be paid on February 26, 2019 to unitholders of record as of the close of business on February 19, 2019.

Summary 2019 Guidance

Following are the key assumptions in Black Stone Minerals' 2019 guidance, as well as comparable results for 2018:

	<u>FY 2018</u>	<u>FY 2019 Est.</u>
Mineral and royalty production (MBoe/d)	32.1	35 - 37
Working interest production (MBoe/d)	14.2	10 - 11
 Total production (MBoe/d)	46.3	45 - 48
Percentage natural gas	71%	~71%
Percentage royalty interest	69%	~77%
Lease bonus and other income (\$MM)	\$36.2	\$30 - \$40
Lease operating expense (\$MM)	\$18.4	\$17 - \$19
Production costs and ad valorem taxes (as % of total pre-derivative O&G revenue)	11.5%	11% - 13%
Exploration expense (\$MM)	\$7.9	\$1.0 - \$2.0
G&A - cash (\$MM)	\$46.6	\$45 - \$47
G&A - non-cash (\$MM)	\$30.1	\$21 - \$23
G&A - TOTAL (\$MM)	\$76.7	\$66 - \$70
DD&A (\$/Boe)	\$7.26	\$7.00 - \$8.00

No acquisitions are assumed in the guidance above; however, consistent with its stated strategy, the Partnership expects to remain active in the acquisition market in 2019 and beyond.

Production

Mineral and royalty production in 2019 is being driven principally by anticipated development of the Haynesville/Bossier play in the Shelby Trough of East Texas, and of the Midland and Delaware basins. At this time, Black Stone does not anticipate investing its own capital in working interest participation; accordingly, working interest production is expected to decline by approximately 25% as a result of Black Stone's successful farmout of Shelby Trough Haynesville working interests.

Exploration Expense

Black Stone plans to purchase seismic data in the Shelby Trough in 2019 to help guide the Partnership's ongoing acquisition program in the area.

General & Administrative Expense

Non-cash general & administrative expense is expected to decline in 2019 as a result of the vesting and settlement of equity awards granted at the time of our IPO. These awards vest over a four-year period and will be settled in the first half of 2019.

Hedge Position

Black Stone has commodity derivative contracts in place covering portions of its anticipated production for 2019 and 2020. The Partnership's current hedge position for 2019 and 2020, including hedges put in place subsequent to December, 31, 2018, is summarized in the following tables:

Oil Hedge Position

		Weighted Avg Oil		Weighted Avg Collar	Weighted Avg Collar
	Oil Swap	Swap Price	Oil Costless Collars	Floor	Ceiling
	MBbl	\$/Bbl	MBbl	\$/Bbl	\$/Bbl
1Q19	685	\$58.62	60	\$65.00	\$74.00
2Q19	765	\$58.54	60	\$65.00	\$74.00
3Q19	765	\$58.15	60	\$65.00	\$74.00
4Q19	765	\$58.15	60	\$65.00	\$74.00
1Q20	180	\$57.48	210	\$56.43	\$67.14
2Q20	180	\$57.48	210	\$56.43	\$67.14
3Q20	180	\$57.48	210	\$56.43	\$67.14
4Q20	180	\$57.48	210	\$56.43	\$67.14

Gas Hedge Position

		Weighted Avg Gas
	Gas Swap	Swap Price
	MMcf	\$/Mcf
1Q19	14,400	\$2.96
2Q19	14,520	\$2.96
3Q19	14,640	\$2.96
4Q19	14,640	\$2.96
1Q20	6,370	\$2.72
2Q20	6,370	\$2.72
3Q20	6,440	\$2.72
4Q20	6,440	\$2.72

More detailed information about the Partnership's existing hedging program can be found in the Annual Report on Form 10-K, which is expected to be filed on February 26, 2019.

Conference Call

Black Stone Minerals will host a conference call and webcast for investors and analysts to discuss its results for the fourth quarter and full year of 2018 on Tuesday, February 26, 2019 at 9:00 a.m. Central Time. To join the call, participants should dial (877) 447-4732 and use conference code 2697118. A live broadcast of the call will also be available at

http://investor.blackstoneminerals.com. A recording of the conference call will be available at that site through March 31, 2019.

Upcoming Investor Relations Events

Members of management from Black Stone Minerals will also be participating in the following investor events:

- Scotia Howard Weil 47th Annual Energy Conference March 25 & 26, 2019 in New Orleans, Louisiana. Management will present on Monday, March 25th and will also participate in one-on-one meetings.
- IPAA OGIS April 9, 2019 in New York City. Management will present and participate in one-on-one meetings.
- NYSE Investor Access Day April 10, 2019 in New York City. Management will conduct meetings with investors throughout the day.
- World Oilman's Mineral & Royalty Conference April 22 & 23, 2019 in Houston, Texas. Management will participate on an industry panel.

Updated presentation materials and webcast information, if any, for the aforementioned events will be made available on the Black Stone Minerals website the day of the respective event.

About Black Stone Minerals, L.P.

Black Stone Minerals is one of the largest owners of oil and natural gas mineral interests in the United States. The Partnership owns mineral interests and royalty interests in 41 states and 64 onshore basins in the continental United States. Black Stone expects that its large, diversified asset base and long-lived, non-cost-bearing mineral and royalty interests will result in production and reserve growth, as well as increasing distributions to its unitholders, over time.

Forward-Looking Statements

This news release includes forward-looking statements. All statements, other than statements of historical facts, included in this news release that address activities, events or developments that the Partnership expects, believes or anticipates will or may occur in the future are forward-looking statements. Terminology such as "will," "may," "should," "expect," "anticipate," "plan," "project," "intend," "estimate," "believe," "target," "continue," "potential," the negative of such terms or other comparable terminology often identify forward-looking statements. Except as required by law, Black Stone Minerals undertakes no obligation and does not intend to update these forward-looking statements to reflect events or circumstances occurring after this news release. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this news release. All forward-looking statements are qualified in their entirety by these cautionary statements. These forward-looking statements involve risks and uncertainties, many of which are beyond the control of Black Stone Minerals, which may cause the Partnership's actual results to differ materially from those implied or expressed by the forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, those summarized below:

- the Partnership's ability to execute its business strategies;
- the volatility of realized oil and natural gas prices;
- the level of production on the Partnership's properties;
- overall supply and demand for oil and natural gas, as well as regional supply and demand factors, delays, or interruptions of production;
- the Partnership's ability to replace its oil and natural gas reserves; and
- the Partnership's ability to identify, complete, and integrate acquisitions.

Black Stone Minerals, L.P. Contact

Brent Collins Vice President, Investor Relations Telephone: (713) 445-3200 investorrelations@blackstoneminerals.com

BLACK STONE MINERALS, L.P. CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited) (In thousands, except per unit amounts)

	Three Months Ended December 31,			Year Ended December 31,				
		2018		2017		2018		2017
REVENUE								
Oil and condensate sales	\$	77,358	\$	50,631	\$	310,278	\$	169,728
Natural gas and natural gas liquids sales		78,064		48,316		248,243		190,967
Lease bonus and other income		7,600		4,980		36,216		42,062
Revenue from contracts with customers		163,022		103,927		594,737		402,757
Gain (loss) on commodity derivative instruments		83,025		(8,485)		14,831		26,902
TOTAL REVENUE		246,047		95,442		609,568		429,659
OPERATING (INCOME) EXPENSE								
Lease operating expense		5,648		4,374		18,415		17,280
Production costs and ad valorem taxes		17,425		12,160		64,364		47,474
Exploration expense		1,161		2		7,943		618
Depreciation, depletion and amortization		34,518		30,051		122,653		114,534
General and administrative		16,296		25,576		76,712		77,574
Accretion of asset retirement obligations		283		266		1,103		1,026
(Gain) loss on sale of assets, net		(1)		_		(3)		(931)
TOTAL OPERATING EXPENSE		75,330		72,429		291,187		257,575
INCOME (LOSS) FROM OPERATIONS		170,717		23,013		318,381		172,084
OTHER INCOME (EXPENSE)								
Interest and investment income		60		19		183		49
Interest expense		(5,437)		(4,034)		(20,756)		(15,694)
Other income (expense)		(1,202)		362		(2,248)		714
TOTAL OTHER EXPENSE		(6,579)		(3,653)		(22,821)		(14,931)
NET INCOME (LOSS)		164,138		19,360		295,560		157,153
Net (income) loss attributable to noncontrolling interests		(23)		7		(24)		34
Distributions on Series A redeemable preferred units				(665)		(25)		(3,117)
Distributions on Series B cumulative convertible preferred units		(5,250)		(1,925)		(21,000)		(1,925)
NET INCOME (LOSS) ATTRIBUTABLE TO THE GENERAL PARTNER AND COMMON AND SUBORDINATED UNITS	\$	158,865	\$	16,777	\$	274,511	\$	152,145
ALLOCATION OF NET INCOME (LOSS):								
General partner interest	\$	—	\$	_	\$	_	\$	_
Common units		83,625		14,400		154,662		98,389
Subordinated units		75,240		2,377		119,849		53,756
	\$	158,865	\$	16,777	\$	274,511	\$	152,145
NET INCOME (LOSS) ATTRIBUTABLE TO LIMITED PARTNERS PER COMMON AND SUBORDINATED UNIT:			_					
Per common unit (basic)	\$	0.78	\$	0.15	\$	1.46	\$	1.01
Weighted average common units outstanding (basic)		108,465		103,415		106,064		97,400
Per subordinated unit (basic)	\$	0.78	\$	0.02	\$	1.25	\$	0.56
Weighted average subordinated units outstanding (basic)		96,329		95,388		96,099		95,149
Per common unit (diluted)	\$	0.72	\$	0.15	\$	1.45	\$	1.01
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Weighted average common units outstanding (diluted)		124,354		103,415	<u></u>	121,264		97,400
Per subordinated unit (diluted)	\$	0.78	\$	0.02	\$	1.25	\$	0.56
Weighted average subordinated units outstanding (diluted)		96,329		95,388		96,346		95,149

The following table shows the Partnership's production, revenues, realized prices, and expenses for the periods presented.

	Tł	Three Months Ended December 31,			Year Ended Decembe		mber 31,	
		2018		2017		2018		2017
	(Unaudited) (Dollars in thousands, except for realized prices)							s)
Production:					-			,
Oil and condensate (MBbls)		1,339		955		4,962		3,552
Natural gas (MMcf) ¹		19,417		15,320		71,622		59,779
Equivalents (MBoe)		4,575		3,508		16,899		13,515
Equivalents/day (MBoe)		49.7		38.1		46.3		37.0
Revenue:								
Oil and condensate sales	\$	77,358	\$	50,631	\$	310,278	\$	169,728
Natural gas and natural gas liquids sales ¹		78,064		48,316		248,243		190,967
Lease bonus and other income		7,600		4,980		36,216		42,062
Revenue from contracts with customers		163,022		103,927		594,737		402,757
Gain (loss) on commodity derivative instruments		83,025		(8,485)		14,831		26,902
Total revenue	\$	246,047	\$	95,442	\$	609,568	\$	429,659
Realized prices, without derivatives:								
Oil and condensate (\$/Bbl)	\$	57.77	\$	53.02	\$	62.53	\$	47.78
Natural gas (\$/Mcf) ¹	\$	4.02	\$	3.15	\$	3.47	\$	3.19
Equivalents (\$/Boe)	\$	33.97	\$	28.21	\$	33.05	\$	26.69
Operating expenses:								
Lease operating expense	\$	5,648	\$	4,374	\$	18,415	\$	17,280
Production costs and ad valorem taxes		17,425		12,160		64,364		47,474
Exploration expense		1,161		2		7,943		618
Depreciation, depletion, and amortization		34,518		30,051		122,653		114,534
General and administrative		16,296		25,576		76,712		77,574
Per Boe:								
Lease operating expense (per working interest Boe)		4.41		3.53		3.55		3.17
Production costs and ad valorem taxes		3.81		3.47		3.81		3.51
Depreciation, depletion, and amortization		7.54		8.57		7.26		8.47
General and administrative		3.56		7.29		4.54		5.74

¹ As a mineral-and-royalty-interest owner, Black Stone Minerals is often provided insufficient and inconsistent data on natural gas liquid ("NGL") volumes by its operators. As a result, the Partnership is unable to reliably determine the total volumes of NGLs associated with the production of natural gas on its acreage. Accordingly, no NGL volumes are included in our reported production; however, revenue attributable to NGLs is included in natural gas revenue and the calculation of realized prices for natural gas.

Non-GAAP Financial Measures

Adjusted EBITDA and distributable cash flow are supplemental non-GAAP financial measures used by our management and external users of our financial statements such as investors, research analysts, and others, to assess the financial performance of our assets and our ability to sustain distributions over the long term without regard to financing methods, capital structure, or historical cost basis.

We define Adjusted EBITDA as net income (loss) before interest expense, income taxes, and depreciation, depletion, and amortization adjusted for impairment of oil and natural gas properties, accretion of asset retirement obligations, unrealized gains and losses on commodity derivative instruments, and non-cash equity-based compensation. We define distributable cash flow as Adjusted EBITDA plus or minus amounts for certain non-cash operating activities, estimated replacement capital expenditures, cash interest expense, and distributions to noncontrolling interests and preferred unitholders.

Adjusted EBITDA and distributable cash flow should not be considered an alternative to, or more meaningful than, net income (loss), income (loss) from operations, cash flows from operating activities, or any other measure of financial performance presented in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") as measures of our financial performance.

Adjusted EBITDA and distributable cash flow have important limitations as analytical tools because they exclude some but not all items that affect net income (loss), the most directly comparable U.S. GAAP financial measure. Our computation of Adjusted EBITDA and distributable cash flow may differ from computations of similarly titled measures of other companies.

The following table presents a reconciliation of net income (loss), the most directly comparable U.S. GAAP financial measure, to Adjusted EBITDA and distributable cash flow for the periods indicated:

		Ended December 31,		Ended nber 31,	
	2018	2017	2018	2017	
	(Unaudited) (In thousands, except per unit amounts)				
Net income (loss)	\$ 164,138	\$ 19,360	\$ 295,560	\$ 157,153	
Adjustments to reconcile to Adjusted EBITDA:					
Depreciation, depletion and amortization	34,518	30,051	122,653	114,534	
Interest expense	5,437	4,034	20,756	15,694	
Income tax expense	1,250	_	2,309	—	
Accretion of asset retirement obligations	283	266	1,103	1,026	
Equity-based compensation	5,187	14,431	30,134	33,045	
Unrealized (gain) loss on commodity derivative instruments	(100,799)	11,357	(53,066)	(11,691)	
Adjusted EBITDA	110,014	79,499	419,449	309,761	
Adjustments to distributable cash flow:					
Change in deferred revenue	(40)	(416) 1,260	(2,086)	
Cash interest expense	(5,186)	(3,818) (19,757)	(14,817)	
(Gain) loss on sales of assets, net	(1)	—	(3)	(931)	
Estimated replacement capital expenditures ¹	(2,750)	(3,250)) (11,500)	(13,500)	
Cash paid to noncontrolling interests	(50)	(30)) (211)	(120)	
Preferred unit distributions	(5,250)	(2,590)) (21,025)	(5,042)	
Distributable cash flow	96,737	69,395	368,213	273,265	
		_			
Total units outstanding ²	205,180	199,647			
Distributable cash flow per unit	0.471	0.348			
Common unit price as of February 22, 2019	\$ 18.15				
Implied distributable cash flow yield	10.4%	ó			

¹ On August 3, 2016, the board of directors of our general partner established a replacement capital expenditures estimate of \$15.0 million for the period of April 1, 2016 to March 31, 2017. On June 8, 2017, the Board approved a replacement capital expenditure estimate of \$13.0 million for the period of April 1, 2017 to March 31, 2018. On April 27, 2018, the Board approved a replacement capital expenditure estimate of \$11.0 million for the period of April 1, 2019.

² The distribution attributable to the quarter ended December 31, 2018 is calculated using 108,851,353 common units and 96,328,836 subordinated units as of February 19, 2019. Distributions attributable to the quarter ended December 31, 2017 were calculated using 104,258,290 common units and 95,388,424 subordinated units as of the record date of February 20, 2018.

Proved Oil & Gas Reserve Quantities

A reconciliation of proved reserves is presented in the following table:

	Crude Oil (MBbl)	Natural Gas (MMcf)	Total (MBoe)
Net proved reserves at December 31, 2017	17,899	300,274	67,945
Revisions of previous estimates	(35)	(11,027)	(1,873)
Purchases of minerals in place	227	419	297
Extensions, discoveries, and other additions	4,438	95,976	20,434
Production	(4,962)	(71,622)	(16,899)
Net proved reserves at December 31, 2018	17,567	314,020	69,904
Net Proved Developed Reserves			
December 31, 2017	17,891	233,017	56,727
December 31, 2018	17,567	278,233	63,939
Net Proved Undeveloped Reserves			
December 31, 2017	8	67,257	11,218
December 31, 2018		35,787	5,965