CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) AND MANAGEMENT'S DISCUSSION AND ANALYSIS

Ascent Resources Utica Holdings, LLC

As of March 31, 2020 and December 31, 2019 and for the Three Months Ended March 31, 2020 and 2019.

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ASCENT RESOURCES UTICA HOLDINGS, LLC CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

| in thousands) | | March 31, 2020 | 1 | December 31, 2019 |
|--|---------|---|----|---|
| Current Assets: | | | | |
| Cash and cash equivalents | \$ | 12,978 | \$ | 7,346 |
| Accounts receivable – natural gas, oil and NGL sales | | 147,408 | | 260,759 |
| Accounts receivable – joint interest and other | | 21,072 | | 20,425 |
| Short-term derivative assets | | 329,186 | | 248,118 |
| Other current assets | | 8,125 | | 8,468 |
| Total Current Assets | | 518,769 | | 545,116 |
| Property and Equipment: | | | | |
| Natural gas and oil properties, based on successful efforts accounting | | 8,449,689 | | 8,233,964 |
| Other property and equipment | | 31,299 | | 30,818 |
| Less: accumulated depreciation, depletion and amortization | | (2,066,863) | | (1,890,506) |
| Property and Equipment, net | | 6,414,125 | | 6,374,276 |
| Other Assets: | | | | |
| Long-term derivative assets | | 52,925 | | 70,778 |
| Other long-term assets | | 19,128 | | 20,248 |
| Total Assets | \$ | 7,004,947 | \$ | 7,010,418 |
| Current Liabilities: | | | | |
| Accounts payable | \$ | 102,110 | \$ | 68,364 |
| Revenue payable | ψ | 56,618 | φ | 99,300 |
| Accrued interest | | 68,466 | | 36,787 |
| Current portion of long-term debt, net | | 94,070 | | 50,787 |
| Short-term derivative liabilities | | 416 | | |
| Other current liabilities | | 258,498 | | 280,841 |
| Total Current Liabilities | | 580,178 | | 485,292 |
| Long-Term Liabilities: | | 500,170 | | 105,272 |
| Long-term debt, net of current portion | | 2,653,788 | | 2,838,676 |
| Long-term derivative liabilities | | 424 | | _,000,010 |
| Other long-term liabilities | | 3,782 | | 5,067 |
| Total Long-Term Liabilities | | 2,657,994 | | 2,843,743 |
| Commitments and contingencies (Note 8) | | _,, | | -,0.0,7.10 |
| Member's Equity | | 3,766,775 | | 3,681,383 |
| Total Liabilities and Member's Equity | \$ | 7,004,947 | \$ | 7,010,418 |
| S During | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ÷ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |

ASCENT RESOURCES UTICA HOLDINGS, LLC CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

| | | Three Months Ended | | | | | | |
|--|----|---------------------------|-----------|-----|--|--|--|--|
| | | March | arch 31, | | | | | |
| (\$ in thousands) | | 2020 | 2019 | | | | | |
| Revenues: | | | | | | | | |
| Natural gas | \$ | 292,518 | \$ 460,3' | 78 | | | | |
| Oil | | 49,554 | 37,54 | 43 | | | | |
| NGL | | 36,003 | 35,44 | 42 | | | | |
| Commodity derivative gain (loss) | | 208,483 | (157,13 | 89) | | | | |
| Total Revenues | | 586,558 | 376,1 | 74 | | | | |
| Operating Expenses: | | | | | | | | |
| Lease operating expenses | | 20,927 | 17,9 | 19 | | | | |
| Gathering, processing and transportation expenses | | 232,713 | 200,0 | 95 | | | | |
| Production and ad valorem taxes | | 9,798 | 8,4′ | 72 | | | | |
| Exploration expenses | | 26,953 | 39,2: | 54 | | | | |
| General and administrative expenses | | 14,420 | 16,34 | 44 | | | | |
| Natural gas and oil depreciation, depletion and amortization | | 175,550 | 159,13 | 32 | | | | |
| Depreciation and amortization of other assets | | 924 | 70 | 65 | | | | |
| Total Operating Expenses | | 481,285 | 441,9 | 81 | | | | |
| Income (Loss) from Operations | | 105,273 | (65,8 | 07) | | | | |
| Other (Expense) Income: | | | | | | | | |
| Interest expense, net | | (33,920) | (21,14 | 43) | | | | |
| Change in fair value of embedded derivative | | — | 1,1. | 38 | | | | |
| Gains on purchases or exchanges of debt | | 13,493 | - | _ | | | | |
| Other income | | 516 | 50 | 03 | | | | |
| Total Other Expense | | (19,911) | (19,5 | 02) | | | | |
| Net Income (Loss) | \$ | 85,362 | \$ (85,3) | 09) | | | | |

ASCENT RESOURCES UTICA HOLDINGS, LLC CONDENSED CONSOLIDATED STATEMENTS OF MEMBER'S EQUITY (Unaudited)

| | Three Mon | ths Ended | | |
|------------------------------|--------------|--------------|--|--|
| | Marc | ch 31, | | |
| (\$ in thousands) | 2020 | 2019 | | |
| Balance, Beginning of Period | \$ 3,681,383 | \$ 3,215,097 | | |
| Contributions from Member | 30 | 176 | | |
| Net income (loss) | 85,362 | (85,309) | | |
| Balance, End of Period | \$ 3,766,775 | \$ 3,129,964 | | |

ASCENT RESOURCES UTICA HOLDINGS, LLC CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

| | | Three Months En March 31, | | | | | |
|--|----|------------------------------|----|-----------|--|--|--|
| (\$ in thousands) | | 2020 | | , 2019 | | | |
| Cash Flows from Operating Activities: | | | | | | | |
| Net income (loss) | \$ | 85,362 | \$ | (85,309) | | | |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: | | | | | | | |
| Depreciation, depletion and amortization | | 176,474 | | 159,897 | | | |
| Change in fair value of commodity derivatives | | (62,375) | | 127,071 | | | |
| Impairment of unproved natural gas and oil properties | | 26,310 | | 38,689 | | | |
| Non-cash interest expense | | 1,988 | | | | | |
| Change in fair value of embedded derivative | | — | | (1,138) | | | |
| Gains on purchases or exchanges of debt | | (13,493) | | — | | | |
| Other | | (34) | | (6) | | | |
| Changes in operating assets and liabilities | | 77,891 | | 102,535 | | | |
| Net Cash Provided by Operating Activities | | 292,123 | _ | 341,739 | | | |
| Cash Flows from Investing Activities: | | | _ | | | | |
| Drilling and completion costs | | (157,857) | | (268,518) | | | |
| Acquisitions of natural gas and oil properties | | (45,391) | | (50,050) | | | |
| Additions to other property and equipment | | (1,212) | | (694) | | | |
| Net Cash Used in Investing Activities | | (204,460) | | (319,262) | | | |
| Cash Flows from Financing Activities: | | | | | | | |
| Proceeds from credit facility borrowings | | 185,000 | | 325,000 | | | |
| Repayment of credit facility borrowings | | (220,000) | | (348,000) | | | |
| Repayment of long-term debt | | (47,031) | | _ | | | |
| Cash paid for debt issuance costs | | — | | (62) | | | |
| Net Cash Used in Financing Activities | | (82,031) | | (23,062) | | | |
| Net Increase (Decrease) in Cash and Cash Equivalents | | 5,632 | | (585) | | | |
| Cash and Cash Equivalents, Beginning of Period | | 7,346 | | 11,030 | | | |
| Cash and Cash Equivalents, End of Period | \$ | 12,978 | \$ | 10,445 | | | |
| Supplemental disclosures of cash flow information: | | | | | | | |
| Interest paid, net of capitalized interest and interest paid in kind | \$ | 2,194 | \$ | 2,371 | | | |
| Supplemental disclosures of significant non-cash investing and financing activities: | | | | | | | |
| Increase (decrease) in accrued capital expenditures | \$ | 34,052 | \$ | (9,813) | | | |

1. Basis of Presentation and Significant Accounting Policies

Basis of Presentation and Consolidation

Ascent Resources Utica Holdings, LLC (ARUH), together with its wholly-owned subsidiaries (collectively, "we", "our" or "us"), is engaged in the acquisition, exploration, development, production and operation of natural gas and oil properties located in the Utica Shale in Ohio (Utica Shale). ARUH is a wholly-owned subsidiary of Ascent Resources Operating, LLC (our Member), which is an indirect, wholly-owned subsidiary of Ascent Resources, LLC (our Parent). Together, The Energy & Minerals Group (EMG) and First Reserve Corporation (First Reserve) own a majority interest in our Parent.

Our accompanying unaudited condensed consolidated financial statements and notes were prepared in accordance with United States generally accepted accounting principles (US GAAP) for interim financial information, and intercompany accounts and balances have been eliminated. Certain disclosures normally included in complete consolidated financial statements prepared in accordance with US GAAP have been omitted. The unaudited condensed consolidated financial statements and notes should be read in conjunction with our audited consolidated financial statements and notes for the year ended December 31, 2019.

The unaudited condensed consolidated financial statements furnished in this report reflect all adjustments that are, in the opinion of management, necessary for a fair statement of the results for interim periods. All such adjustments are of a normal recurring nature. The results for any interim period are not necessarily indicative of the expected results for the entire year.

Risks and Uncertainties

On January 30, 2020, the World Health Organization (WHO) announced a global health emergency due to the spread of a novel coronavirus (COVID-19), which was classified as a pandemic in March 2020 based on the rapid increase in global exposure. Under the guidance of the WHO and the Centers for Disease Control and Prevention (CDC) and in an effort to slow the spread of the virus, many local, state and national governments implemented new laws and regulations which led to a steep decline in the global demand for oil and, to a lesser extent, natural gas. Recent actions by OPEC and other oil producers to curtail production and reduce supply have failed to keep pace with lessened demand, resulting in oil production stressing storage limits. These actions along with the COVID-19 related decreases in natural gas and oil demand have resulted in a significant decline in prices and an increasingly volatile market. It is unclear how long the oversupplied market will continue or when prices will recover to more historical levels.

The decrease in demand for oil, specifically, has led to some of our oil purchasers issuing force majeure notices requiring the curtailment of a portion of our oil production. Because our operations focus primarily on the production of natural gas, we currently do not expect this curtailment to have a material impact on our production volumes or revenue for 2020. Increased curtailments of oil production in the United States may lead to a decline in the associated natural gas production, which could improve the supply-demand imbalance that the natural gas market currently faces.

We maintain a robust hedging program to mitigate natural gas and oil price volatility. As of March 31, 2020, 79% of our projected natural gas production for the remainder of 2020 was hedged at a weighted average price of \$2.63 per mmbtu, and 70% of our projected natural gas production for 2021 was hedged at a weighted average price of \$2.55 per mmbtu. Additionally, as of March 31, 2020, 62% of our projected oil production for the remainder of 2020 was hedged at a weighted average price of \$43.43 per barrel, and 58% of our projected oil production for 2021 was hedged at a weighted average price of \$49.17 per barrel.

Although our reserves consist predominantly of natural gas and we have hedged a substantial portion of our projected natural gas production for 2020 and 2021, if the pricing environment for natural gas continues to decline over an extended period, it may in the future lead to (i) a reduction in reserves, including the possible removal of proved undeveloped reserves, (ii) an impairment of proved and/or unproved natural gas and oil properties, (iii) further curtailment of production and/or (iv) a reduction in the borrowing base of our Credit Facility.

The full impact of COVID-19 and the volatility in commodity prices continues to evolve, and, although we are monitoring both closely, we cannot be certain as to the full magnitude that they will have on our future financial condition, liquidity and results of operations.

Use of Estimates

The preparation of condensed consolidated financial statements in accordance with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosures on the condensed consolidated financial statements. Actual amounts could differ from these estimates. Estimates of natural gas, oil and natural gas liquids (NGL) reserves and their values, future production rates and future costs and expenses are the most significant of our estimates.

Customer Credit Risk

We are subject to credit risk resulting from the concentration of our natural gas, oil and NGL receivables. If our largest customers stopped purchasing our natural gas, oil or NGL, our revenues could decline, and our operating results and financial condition could be harmed. However, management does not believe the loss of any single customer would materially impact our operating results, as natural gas, oil and NGL are fungible products with well-established markets, and we transact with numerous customers in our operating region. We historically have not incurred losses on our natural gas, oil and NGL receivables.

We also have joint interest receivables, which arise from billings to entities that own working interests in the wells we operate. These entities participate in our wells primarily based on their ownership in leases. We have little ability to control whether these entities will participate in our wells but can require these entities to prepay drilling costs. We historically have not incurred losses on our joint interest receivables.

Reclassifications

Certain reclassifications have been made to our March 31, 2019 condensed consolidated financial statements to conform to the presentation used for the March 31, 2020 condensed consolidated financial statements.

Adopted and Recently Issued Accounting Pronouncements

In August 2018, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2018-13, *Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement (Topic 820)*. The amendments in this ASU remove, modify and add to the disclosure requirements for fair value measurements. The new standard clarifies that entities should disclose information about the uncertainty of fair value measurements as of the reporting date. These amendments are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019 for both public and non-public entities. The amended guidance on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. We adopted ASU 2018-13 effective January 1, 2020 and did not experience a material impact to our financial statements or disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (Topic 326)*. This ASU amends guidance on reporting credit losses for assets held at amortized cost basis and available for sale debt securities. For assets held at amortized cost basis, this ASU eliminates the probable initial recognition threshold in current US GAAP and instead requires an entity to reflect its current estimate of all expected credit losses. The amendments affect loans, debt securities, trade receivables, net investments in leases, off balance sheet credit exposures, reinsurance receivables and any other financial assets not excluded from the scope that have the contractual right to receive cash. These amendments are effective for annual reporting periods, and interim periods within those periods, beginning after December 15, 2019 for public entities. For non-public entities, the amendments will be effective for annual reporting periods beginning after December 15, 2022, including interim periods within those fiscal years. The amendments in this guidance should be applied using the modified retrospective approach with a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We are currently evaluating the impact this standard will have on our financial statements and related disclosures, and we do not expect it to have a material impact.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The amendments in this update require, among other things, that lessees recognize the following for all leases as defined by Topic 842 (with the exception of short-term leases) at the lease commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and (2) a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. Classification of leases as either a finance or operating lease will determine the recognition and presentation of expenses. This ASU also requires certain quantitative and qualitative disclosures about leasing arrangements. We expect to apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented on the financial statements. The FASB has issued subsequent updates, including ASU 2018-01, ASU 2018-11 and ASU 2019-01, in order to clarify its original intent under Topic 842 and provide additional guidance for transitional disclosures and practical expedients. The amendments were effective for interim and annual reporting periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim generic beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim generic beginning after December 15, 2020 and for interim generic beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods beginning after December 15, 2020 and for interim periods b

Subsequent Events

As of May 8, 2020, the date the condensed consolidated financial statements were issued, we completed our evaluation of material subsequent events for disclosure, and such items are noted within.

2. Revenue from Contracts with Customers

Our revenues are derived from the sale of natural gas, oil and NGL and are recognized when production is sold to a customer at a fixed or determinable price, delivery has occurred, control has transferred and collection of the revenue is probable, in accordance with ASC 606, *Revenue from Contracts with Customers* (ASC 606). We typically receive payment for natural gas, oil and NGL sales within 30 days of the month of delivery. A significant number of our sales contracts are short-term in nature generally through evergreen contracts with terms of one year or less, and our sales contracts with a term greater than one year have no material long-term fixed consideration.

Under our natural gas sales contracts, we deliver natural gas to the customer at a delivery point specified under the sales contracts, utilizing third parties to gather, compress, process and transport our natural gas. Our sales contracts provide that we generally receive revenue for the sale of our natural gas based on a specific index price adjusted for pricing differentials. We transfer control of the natural gas at the delivery point and recognize revenue based on the contract price. The costs incurred to gather, compress, process and transport the natural gas prior to the point when control is transferred to the customer are recorded on the condensed consolidated statements of operations as gathering, processing and transportation expenses.

NGL, which are extracted from natural gas through processing, are either sold by us directly or to the processor under processing contracts. For NGL sold by us directly, the sales contracts provide that the product is delivered to the customer at an agreed upon delivery point and that we generally receive revenue for the sale of our NGL based on a specific index price adjusted for pricing differentials. We transfer control of the product to the customer at the delivery point and recognize revenue based on the contract price. The costs to process and transport NGL to the delivery points are recorded on the condensed consolidated statements of operations as gathering, processing and transportation expenses. For NGL sold to the price received from the processor, at the tailgate of the processor at the tailgate of the processor.

Under our oil sales contracts, oil is sold to the customer from storage tanks near the wellhead, and we receive revenue for the sale of our oil based on a specific index price adjusted for pricing differentials. We transfer control of the product to the customer at the storage tanks and recognize revenue based on the contract price.

Our revenues from the sale of natural gas, oil and NGL are each presented separately on our condensed consolidated statements of operations. We believe that the disaggregation of revenue into these three major product types appropriately depicts the requirements of ASC 606.

Under our sales contracts, customers are invoiced after our performance obligations have been satisfied, generally when control of the product has been transferred to the customer, at which point payment is unconditional. Accordingly, our contracts do not give rise to contract assets or liabilities under ASC 606. At March 31, 2020 and December 31, 2019, receivables from contracts with customers were \$147.4 million and \$260.8 million, respectively, and were reported in accounts receivable – natural gas, oil and NGL sales on the condensed consolidated balance sheets.

3. Property and Equipment

Net property and equipment included the following:

| | March 31, | December 31, |
|--|-------------|----------------|
| (\$ in thousands) | 2020 | 2019 |
| Proved natural gas and oil properties | \$ 7,356,76 | \$ 7,155,998 |
| Unproved natural gas and oil properties | 1,092,92 | 3 1,077,966 |
| Other property and equipment | 31,29 | 30,818 |
| Total Property and Equipment | 8,480,98 | 8 8,264,782 |
| Accumulated depreciation, depletion and amortization | (2,066,86 | 3) (1,890,506) |
| Property and Equipment, net | \$ 6,414,12 | 5 \$ 6,374,276 |

4. Debt

Our debt consisted of the following as of the dates indicated:

| | March 31, | | ecember 31, |
|---|-----------------|----|-------------|
| (\$ in thousands) | 2020 | | 2019 |
| Long-Term Debt: | | | |
| Credit Facility ^(a) | \$ 1,153,000 | \$ | 1,188,000 |
| Senior notes due 2022 ^(b) | 924,713 | | 975,000 |
| Senior notes due 2026 ^(c) | 600,000 | | 600,000 |
| Convertible notes due 2021 ^(d) | _ | | 77,336 |
| Net debt issuance costs | (3,197) | | (3,522) |
| Net debt discounts and premiums | (20,728) | | 1,862 |
| Total Long-Term Debt, net of current portion | 2,653,788 | | 2,838,676 |
| Plus current maturities of long-term debt, net ^(d) | 94,070 | | |
| Total Debt, net | \$ 2,747,858 | \$ | 2,838,676 |

^(a) The interest rate was 3.10% and 4.01% as of March 31, 2020 and December 31, 2019, respectively.

^(b) The interest rate was 10.00% as of March 31, 2020 and December 31, 2019.

^(c) The interest rate was 7.00% as of March 31, 2020 and December 31, 2019.

(d) The interest rate was 6.50% as of March 31, 2020 and December 31, 2019. The Convertible Notes (defined below) were reclassified from a long-term liability to a current liability as of March 31, 2020 due to their maturity date of March 1, 2021. The carrying value of the Convertible Notes as of March 31, 2020 consists of \$69.2 million of outstanding principal plus a premium that is being accreted over the life of the notes.

Credit Facility

Our \$2.5 billion senior secured revolving credit facility (Credit Facility) matures on April 1, 2024, and as of March 31, 2020, it had a fully committed borrowing base of \$2.0 billion, of which \$250.0 million was authorized for letters of credit. The maturity date will accelerate to December 30, 2021 if more than \$200.0 million of the 2022 Notes (defined below) are outstanding as of December 30, 2021. The Credit Facility is secured by liens on substantially all of our assets, including our natural gas and oil properties. The amount available to be borrowed under our Credit Facility is subject to a borrowing base that is required to be redetermined semiannually on or about April 1 and October 1 of each year based on the estimated value and future net cash flows of our proved natural gas, oil and NGL reserves and the value of our commodity hedge positions as determined by lenders under the Credit Facility at their discretion. Additionally, we may request an interim redetermination of the borrowing base in certain circumstances, including acquisitions of proved reserves in excess of certain thresholds. As of March 31, 2020, we had \$1.2 billion of borrowings outstanding and \$163.0 million of letters of credit outstanding under the Credit Facility. In May 2020, the Credit Facility was redetermined, capacity was increased for junior secured indebtedness and the borrowing base was reduced to \$1.85 billion.

Under the Credit Facility agreement, we may borrow either base rate loans or Eurodollar loans, and as of March 31, 2020, all of the borrowings under the Credit Facility were Eurodollar loans. Principal amounts borrowed are payable on the maturity date, and interest is payable at the end of the applicable interest period. Eurodollar loans bear interest at a rate per annum equal to the London Interbank Offered Rate (LIBOR) plus an applicable margin ranging from 1.75% to 2.75% per annum based on Credit Facility utilization. Due to the weighted average 1-month LIBOR being 0.85% for the applicable interest periods on the most recent election dates, we were subject to a weighted average rate of 3.10% per annum as of March 31, 2020. We may repay any amounts borrowed prior to the maturity date without any premium or penalty.

Under the Credit Facility agreement, we are subject to commitment fees payable to the administrative agent for the unutilized portion of our available borrowing base, the rate of which ranges from 0.375% to 0.50% based on Credit Facility utilization. Additionally, we are subject to letter of credit participation fees payable to the administrative agent which escalate based on applicable margins, ranging from 1.75% to 2.75% per annum, in accordance with the Credit Facility utilization. We are also subject to a letter of credit fronting fee that is payable to the issuing bank at a rate of 0.125% per annum of the balance of outstanding letters of credit issued. During the three months ended March 31, 2020 and 2019, we incurred \$1.9 million and \$4.8 million, respectively, in commitment, participation and fronting fees on letters of credit outstanding and \$11.6 million and \$11.4 million, respectively, in interest on principal borrowings under the Credit Facility, which are presented as interest expense on the condensed consolidated statements of operations.

The Credit Facility contains restrictive covenants including, but not limited to, restrictions on our ability to incur additional indebtedness, create certain liens on assets, make certain investments or restricted payments, make loans to others, make certain payments, consolidate or merge, hedge hydrocarbons, enter into transactions with affiliates, dispose of assets or engage in certain other transactions without the prior consent of the lenders. The Credit Facility also requires us to maintain the following two financial ratios: 1) a consolidated leverage ratio, which requires us to maintain a consolidated funded indebtedness to consolidated EBITDAX (as defined in the agreement) ratio of not more than 4.00 to 1.00 for each fiscal quarter and 2) a modified current ratio per the covenants, which requires us to maintain consolidated current liabilities of not less than 1.00 to 1.00 as of the end of each fiscal quarter. As of March 31, 2020, we were in compliance with the financial covenants of the Credit Facility.

As of March 31, 2020, we had \$18.8 million in unamortized debt issuance costs associated with the Credit Facility, which are presented as other long-term assets on the condensed consolidated balance sheet.

Senior Notes

In April 2017, we issued \$1.5 billion in aggregate principal amount of senior unsecured notes (2022 Notes) in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act. The 2022 Notes are due on April 1, 2022, and interest is payable at an annual rate of 10.00% on April 1 and October 1 of each year. Our obligations under the 2022 Notes are fully and unconditionally guaranteed, jointly and severally, by any of our current and future material subsidiaries. The 2022 Notes are governed by an indenture containing covenants limiting, among other things, our ability to incur additional indebtedness, make investments or loans, create liens, consummate mergers and similar fundamental changes, make restricted payments, make investments in unrestricted subsidiaries and enter into certain transactions with affiliates. We were in compliance with all applicable covenants under the indenture as of March 31, 2020. During the three months ended March 31, 2020, we repurchased approximately \$50.3 million of outstanding principal amount of the 2022 Notes at a discount for \$35.3 million, plus accrued and unpaid interest, and recorded a \$14.4 million gain, including the write-off of unamortized debt issuance costs and discounts. As of March 31, 2020, we had \$924.7 million in principal of 2022 Notes outstanding.

In October 2018, we issued \$600.0 million in aggregate principal amount of senior unsecured notes (2026 Notes) in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act. The 2026 Notes are due on November 1, 2026, and interest is payable at an annual rate of 7.00% on May 1 and November 1 of each year. We used the proceeds primarily to redeem \$525.0 million of outstanding principal of the 2022 Notes and pay accrued and unpaid interest up to, but excluding, the date of the redemption. The remaining net proceeds were used to repay borrowings under the Credit Facility. Our obligations under the 2026 Notes are fully and unconditionally guaranteed, jointly and severally, by any of our current and future material subsidiaries. The 2026 Notes are governed by an indenture containing covenants limiting, among other things, our ability to incur additional indebtedness, make investments or loans, create liens, consummate mergers and similar fundamental changes, make restricted payments, make investments in unrestricted subsidiaries and enter into certain transactions with affiliates. We were in compliance with all applicable covenants under the indenture as of March 31, 2020.

At any time prior to November 1, 2021, we may redeem up to 40% of the aggregate principal amount of the 2026 Notes at a price equal to 107% of the principal amount, plus accrued and unpaid interest up to, but excluding, the redemption date, with an amount of cash not greater than the net cash proceeds of one or more equity offerings, subject to certain conditions. Additionally, at any time prior to April 1, 2020 for the 2022 Notes or November 1, 2021 for the 2026 Notes (together, the Senior Notes), we may redeem some or all of the Senior Notes subject to a make-whole premium plus accrued and unpaid interest up to, but excluding, the redemption date. We may redeem some or all of the Senior Notes at the applicable redemption prices (expressed as percentages of the principal amount for the periods noted) set forth in the table below:

| Senior Notes | Redemption Period | Redemption Price |
|--------------|---|------------------|
| 2022 Notes | April 1, 2020 through March 31, 2021 | 107.500% |
| 2022 Notes | April 1, 2021 through September 30, 2021 | 105.000% |
| 2022 Notes | October 1, 2021 and thereafter | 100.000% |
| | | |
| 2026 Notes | November 1, 2021 through October 31, 2022 | 103.500% |
| 2026 Notes | November 1, 2022 through October 31, 2023 | 102.333% |
| 2026 Notes | November 1, 2023 through October 31, 2024 | 101.167% |
| 2026 Notes | November 1, 2024 and thereafter | 100.000% |

We are not prohibited from acquiring the Senior Notes by means other than a redemption, whether pursuant to a tender offer, open market purchase or otherwise, so long as the acquisition does not violate the terms of the applicable indenture. Upon the occurrence of

a qualifying change of control, we are required to offer to repurchase all or any part of the Senior Notes at a purchase price in cash equal to 101% of the aggregate principal amount of the Senior Notes to be repurchased, plus accrued and unpaid interest up to, but excluding, the date of purchase, subject to the rights of the note holders on the relevant record date to receive interest due on an interest payment date that is on or prior to the date we repurchased the notes from the holder.

The Senior Notes are senior unsecured obligations and rank equally in right of payment with all of our existing and future senior unsecured debt, and the Senior Notes will rank senior in right of payment to all of our future subordinated debt. The Senior Notes are effectively subordinated to all of our existing and future secured debt to the extent of the value of the collateral securing such indebtedness.

In connection with the issuance and sale of the 2022 Notes, we entered into a registration rights agreement with the initial purchasers. Pursuant to the registration rights agreement, we have agreed to file a registration statement with the United States Securities and Exchange Commission subsequent to an initial public offering of our equity so that the holders may exchange the 2022 Notes for registered notes that have substantially identical terms. In addition, we have agreed to exchange the guarantee related to the 2022 Notes for a registered guarantee having substantially the same terms. We will use commercially reasonable efforts to cause the exchange to be completed within 365 days following the closing date of an underwritten public offering by ARUH or any parent entity. If we fail to comply with certain obligations to register the 2022 Notes, then for each 90-day period beginning immediately following such failure, the interest rate on the 2022 Notes will increase by 0.25% per annum, up to a maximum aggregate increase of 1.00% per annum. Upon regaining compliance with the terms of the registration rights agreement, the increase in interest rate on the 2022 Notes will cease, and the interest rate will return to the stated annual rate of 10.00%.

Convertible Notes

In 2014, we issued \$1.0 billion of convertible notes due 2021 (Convertible Notes). Through multiple transactions from 2015 through 2017, we repurchased or otherwise retired \$950.3 million in aggregate principal and accrued and unpaid interest of the Convertible Notes. During the three months ended March 31, 2020, we repurchased an additional \$8.1 million of outstanding principal amount of the Convertible Notes for \$11.7 million, plus accrued and unpaid interest, and recorded a \$0.9 million loss, including the write-off of debt issuance costs, discounts and premiums.

The Convertible Notes mature on March 1, 2021, and as of March 31, 2020, we had \$69.2 million in aggregate principal of the Convertible Notes outstanding. The Convertible Notes are subordinate to the Senior Notes, which rank senior in right of payment. Interest may be paid in cash or in kind semi-annually in arrears on March 1 and September 1 of each year and is currently payable at an annual rate of 6.50%. We elected to pay interest in kind on each interest payment date from September 2015 through September 2019. Upon maturity, unless earlier repurchased or converted, we will be required to redeem the Convertible Notes at 153.8% of the outstanding principal value, plus accrued and unpaid interest up to, but not including, the maturity date. We accrete the 53.8% premium to interest expense through the maturity date using the effective interest method. As of March 31, 2020, the carrying value of the Convertible Notes, including the portion of the premium that has been accreted, was \$94.1 million.

Conversion of the Convertible Notes into common shares of the qualified public offering issuer (Qualified PO Issuer) following a qualified public offering (Qualified PO) is at the option of the noteholders. A Qualified PO is the first public offering of common stock in which the aggregate gross proceeds to the Qualified PO Issuer and the shareholders selling such common stock, if any, equal or exceed \$200.0 million and, following such offering, such common stock is listed on a United States securities exchange. Following the closing of a Qualified PO, we will have the option to redeem all of the Convertible Notes that were not otherwise converted at a price equal to 100% of the principal of the Convertible Notes to be redeemed, plus accrued and unpaid interest, if any. The Convertible Notes also provide for cash redemption upon a change of control event at the option of the holders at a price, including a premium, of 153.8% of the principal amount of the Convertible Notes, plus accrued and unpaid interest up to, but not including, the date of redemption. The Convertible Notes are not redeemable by the holders prior to a change of control or the closing of a Qualified PO.

Interest Expense

Interest expense was comprised of the following:

| | Three Months | | | | | |
|--|--------------|----------|----|----------|--|--|
| | March 31, | | | | | |
| <u>(\$ in thousands)</u> | 2020 | | | 2019 | | |
| Interest expense | \$ | 50,670 | \$ | 53,063 | | |
| Long-term debt accretion expense | | 4,560 | | 3,879 | | |
| Deferred debt issuance cost amortization | | 1,374 | | 1,556 | | |
| Capitalized interest | | (22,684) | | (37,355) | | |
| Total Interest Expense, net | \$ | 33,920 | \$ | 21,143 | | |

5. Commodity Derivative Instruments

We use commodity derivative instruments to reduce our exposure to fluctuations in future commodity prices and to protect our anticipated operating cash flow against significant market movements or volatility. We do not use commodity derivative instruments for speculative or trading purposes. As of March 31, 2020, our natural gas, oil and NGL derivative instruments consisted of the following types of instruments:

- Swaps. We receive a fixed price and pay a variable market price to the counterparty for the hedged commodity.
- *Call Options*. We sell call options in exchange for a premium, which establish the maximum price we will receive for contracted commodity volumes. At the time of settlement, if the market price exceeds the fixed price of the call option, we pay the difference to the counterparty. From time to time, we may sell future call options to obtain more favorable strike prices on swap or collar contracts.
- *Collars*. These instruments contain a fixed floor price (put) and ceiling price (call). If the market price exceeds the call strike price, we pay the difference between market price and the strike price of the sold call to the counterparty. If the market price falls below the put strike price, we receive the difference between the market price and the strike price of the purchased put from the counterparty. If the market price is between the put and the call strike prices, no payments are due to or from either party.
- *Three-Way Collars*. Three-way collars consist of a traditional collar and our sale of an additional put option in exchange for more favorable strike prices on purchased put or sold call options.
- *Basis Swaps*. Given that our natural gas production is sold at various delivery points that at times may have material spreads or volatility relative to NYMEX, basis swaps are periodically used at the following basis points to fix the differential between product prices at one market location relative to NYMEX: Chicago (Citygate), Dawn (Ontario), MichCon, Rex Zone 3, Dominion South, TCO and Tetco M-2. Under these instruments, we receive the fixed price differential and pay the floating market price differential to the counterparty for the contracted volumes.

All commodity derivative instruments are recognized at their current fair value as either assets or liabilities on the condensed consolidated balance sheets. Changes in the fair value of these commodity derivative instruments are recorded in earnings as we have not elected hedge accounting for any of our commodity derivative instruments. By using commodity derivative instruments, we are exposed to credit risk associated with our hedge counterparties. To minimize such risk, our derivative contracts are with multiple counterparties, reducing our exposure to any individual counterparty. Also, we only enter into derivative contracts with counterparties that we determine are creditworthy, and such creditworthiness is subject to periodic review.

The following table sets forth the average volumes per day associated with our outstanding natural gas derivative instruments as of March 31, 2020, the contracted weighted average natural gas prices, the contracted weighted average basis swap spreads and the estimated fair values:

| | Weighted Average Prices (\$/mmbtu) | | | | | | | | | | |
|----------------------------|------------------------------------|----|--------------|----|--------------|-----|--------------|----|-----------|--------|--------------|
| | Average Volume | | Swap | So | ld Call | Pur | chased Put | S | old Put | ŀ | Fair Value |
| | (mmbtu/d) | St | Strike Price | | Strike Price | | Strike Price | | ike Price | (\$ iı | n thousands) |
| Natural gas: | | | | | | | | | | | |
| Swaps: | | | | | | | | | | \$ | 371,030 |
| Remaining in 2020 | 1,466,000 | \$ | 2.70 | | | | | | | | |
| 2021 | 1,235,000 | \$ | 2.56 | | | | | | | | |
| 2022 | 1,010,000 | \$ | 2.51 | | | | | | | | |
| 2023 | 450,000 | \$ | 2.46 | | | | | | | | |
| 2024 | 140,000 | \$ | 2.47 | | | | | | | | |
| Collars: | | | | | | | | | | | 25,494 |
| Remaining in 2020 | 240,000 | | | \$ | 2.70 | \$ | 2.18 | | | | |
| 2021 | 10,000 | | | \$ | 2.91 | \$ | 2.50 | | | | |
| Three-way collars: | | | | | | | | | | | 10,616 |
| 2021 | 270,000 | | | \$ | 2.91 | \$ | 2.50 | \$ | 2.00 | | |
| 2022 | 160,000 | | | \$ | 3.00 | \$ | 2.50 | \$ | 2.01 | | |
| Call options: | | | | | | | | | | | (84,757) |
| Remaining in 2020 | 250,000 | | | \$ | 3.00 | | | | | | |
| 2021 | 335,000 | | | \$ | 3.02 | | | | | | |
| 2022 | 360,000 | | | \$ | 2.99 | | | | | | |
| 2023 | 370,000 | | | \$ | 2.89 | | | | | | |
| 2024 | 400,000 | | | \$ | 2.84 | | | | | | |
| Basis swaps: | | | | | | | | | | | 71 |
| Remaining in 2020 | 866,000 | \$ | (0.34) | | | | | | | | |
| 2021 | 423,000 | \$ | (0.29) | | | | | | | | |
| 2022 | 45,000 | \$ | (0.14) | | | | | | | | |
| Total Estimated Fair Value | | | | | | | | | | \$ | 322,454 |

Total Estimated Fair Value

The following table sets forth the average volumes per day associated with our outstanding oil derivative instruments as of March 31, 2020, the contracted weighted average oil prices and the estimated fair values:

| | Weighted Average Prices (\$/bbl) | | | | | | | | | | |
|-----------------------------------|----------------------------------|----|--------------|----|--------------|----|--------------|----|--------------|--------|------------|
| | Average Volume | | Swap | | Sold Call | P | urchased Put | | Sold Put | F | air Value |
| | (bbl/d) | | Strike Price | 5 | Strike Price | | Strike Price | | Strike Price | (\$ in | thousands) |
| Oil: | | | | | | | | | | | |
| Swaps: | | | | | | | | | | \$ | 49,406 |
| Remaining in 2020 | 4,200 | \$ | 56.81 | | | | | | | | |
| 2021 | 4,000 | \$ | 48.34 | | | | | | | | |
| Collars: | | | | | | | | | | | 92 |
| Remaining 2020 | 2,700 | | | \$ | 35.94 | \$ | 22.25 | | | | |
| Three-way collars: | | | | | | | | | | | 2,728 |
| 2021 | 1,000 | | | \$ | 65.30 | \$ | 52.50 | \$ | 42.50 | | |
| Call options: | | | | | | | | | | | (237) |
| Remaining in 2020 | 3,800 | | | \$ | 70.00 | | | | | | |
| 2021 | 3,500 | | | \$ | 70.00 | | | | | | |
| Total Estimated Fair Value | | | | | | | | | | \$ | 51,989 |

The following table sets forth the average volumes per day associated with our outstanding NGL derivative instruments as of March 31, 2020, the contracted weighted average NGL prices and the estimated fair values:

| | | Weighted Avera | ge Prices (\$ | 5/bbl) | |
|--------------------------------|---------------------------|---------------------------------------|---------------|--------|------------------------|
| | Average Volume (bbl/d) | SwapSold CallStrike PriceStrike Price | | | ir Value thousands) |
| NGL: | | | | | |
| Swaps - Propane: | | | | | \$ 6,850 |
| Remaining in 2020 | 1,500 | \$ 30.14 | | | |
| Call options - Propane: | | | | | (22) |
| Remaining in 2020 | 3,150 | | \$ | 33.60 | |
| Total Estimated Fair Value | | | | | \$ 6,828 |

The following tables summarize the fair value of our commodity derivative instruments on a gross basis, the effects of netting assets and liabilities for which the right of offset exists based on master netting agreements and the net amount presented on our condensed consolidated balance sheets as of March 31, 2020 and December 31, 2019:

| | | March 31, 2020 | | | | | | | | |
|--|-----------------------------------|----------------|----------------------|---------|------------------------|-----|--------------------------|--|---------------|--|
| | | Gross | | Amounts | | Net | t Recognized | | | |
| | Condensed Consolidated | R | Recognized Netted on | | Netted on | | ir Value on | | | |
| (\$ in thousands) | Balance Sheet Classification | F | Fair Value | | air Value Balance Shee | | Fair Value Balance Sheet | | Balance Sheet | |
| Derivative assets: | | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | Short-term derivative assets | \$ | 445,061 | \$ | (115,875) | \$ | 329,186 | | | |
| Natural gas, oil and NGL commodity derivatives | Long-term derivative assets | \$ | 199,208 | \$ | (146,283) | \$ | 52,925 | | | |
| Derivative liabilities: | | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | Short-term derivative liabilities | \$ | 116,291 | \$ | (115,875) | \$ | 416 | | | |
| Natural gas, oil and NGL commodity derivatives | Long-term derivative liabilities | \$ | 146,707 | \$ | (146,283) | \$ | 424 | | | |

| | | December 31, 2019 | | | | | | | |
|--|-----------------------------------|--------------------------|---------|---------------|----------|----|----------------------|--|-----------------------------|
| | Condensed Consolidated | | Gross | | | | Amounts Netted on | | : Recognized ir Value on |
| (\$ in thousands) | Balance Sheet Classification | Recognized Fair Value | | Balance Sheet | | | lance Sheet | | |
| Derivative assets: | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | Short-term derivative assets | \$ | 298,113 | \$ | (49,995) | \$ | 248,118 | | |
| Natural gas, oil and NGL commodity derivatives | Long-term derivative assets | \$ | 148,721 | \$ | (77,943) | \$ | 70,778 | | |
| Derivative liabilities: | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | Short-term derivative liabilities | \$ | 49,995 | \$ | (49,995) | \$ | | | |
| Natural gas, oil and NGL commodity derivatives | Long-term derivative liabilities | \$ | 77,943 | \$ | (77,943) | \$ | _ | | |

The following table summarizes the effects of commodity derivative instruments on the condensed consolidated statements of operations for the periods presented:

| | | Three Mo | nths Ended |
|--|--|------------|--------------|
| | Condensed Consolidated Statements | Mar | ch 31, |
| (\$ in thousands) | of Operations Presentation | 2020 | 2019 |
| Natural gas, oil and NGL commodity derivatives | Commodity derivative gain (loss) | \$ 208,483 | \$ (157,189) |

6. Fair Value Measurements

We use a three-level valuation hierarchy for disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

- Level 1 Unadjusted 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; and model-derived valuations whose inputs or significant value drivers are observable.
- Level 3 Unobservable inputs that reflect our own assumptions.

Fair Value of Derivative Instruments

The following tables summarize the valuation of financial instruments by pricing levels that were accounted for at fair value on a recurring basis as of March 31, 2020 and December 31, 2019. The fair values of the natural gas, oil and NGL commodity derivatives are based primarily on inputs that are derived from observable data at commonly quoted intervals and are therefore classified as Level 2. See Note 5 for further information regarding our commodity derivative instruments.

| | Fair value measurements at March 31, 2020 using: | | | | | | | | |
|--|--|---------|----|---------|----|---------|----|---------|--|
| (\$ in thousands) | | Level 1 | | Level 2 | | Level 3 | | Total | |
| Derivative assets: | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | \$ | | \$ | 382,111 | \$ | — | \$ | 382,111 | |
| Total | \$ | | \$ | 382,111 | \$ | | \$ | 382,111 | |
| Derivative liabilities: | | | | | | | | | |
| Natural gas, oil and NGL commodity derivatives | \$ | | \$ | 840 | \$ | | \$ | 840 | |
| Total | \$ | | \$ | 840 | \$ | | \$ | 840 | |

| Fair value measurements at December 31, 2019 using: | | | | | | | | |
|---|----------|---------------------------|---|---|---|--|---|--|
| | Level 1 | | Level 2 | | Level 3 | | Total | |
| | | | | | | | | |
| \$ | | \$ | 318,896 | \$ | — | \$ | 318,896 | |
| \$ | | \$ | 318,896 | \$ | | \$ | 318,896 | |
| | | | | | | | | |
| \$ | | \$ | — | \$ | — | \$ | | |
| \$ | | \$ | _ | \$ | | \$ | | |
| | \$ \$ | Level 1 \$ \$ \$ | Level 1 <u>\$ - \$</u> <u>\$ - \$</u> <u>\$ - \$</u> <u>\$ - \$</u> | Level 1 Level 2 \$ - \$ 318,896 \$ - \$ 318,896 \$ - \$ 318,896 \$ - \$ 318,896 | Level 1 Level 2 \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ - \$ \$ - \$ - \$ | Level 1 Level 2 Level 3 \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ 318,896 \$ \$ - \$ - \$ \$ - \$ - \$ | Level 1 Level 2 Level 3 \$ - \$ 318,896 \$ - \$ \$ - \$ 318,896 \$ - \$ \$ - \$ 318,896 \$ - \$ \$ - \$ 318,896 \$ - \$ \$ - \$ - \$ - \$ \$ - \$ - \$ - \$ | |

Fair Value of Debt

The carrying amounts and estimated fair values of our debt instruments as of March 31, 2020 and December 31, 2019 are shown in the table below. The fair values were estimated using Level 2 market data inputs. See Note 4 for further information regarding our debt.

| | March 3 | 31, 2020 | Decembe | er 31, 2019 | | |
|--------------------------|--------------|--------------|--------------|--------------|--|--|
| | Carrying | Fair | Carrying | Fair | | |
| <u>(\$ in thousands)</u> | Value | Value | Value | Value | | |
| Credit Facility | \$ 1,153,000 | \$ 1,153,000 | \$ 1,188,000 | \$ 1,188,000 | | |
| 2022 Notes | 914,070 | 540,957 | 962,594 | 969,764 | | |
| 2026 Notes | 586,718 | 166,740 | 586,330 | 478,500 | | |
| Convertible Notes | 94,070 | 96,862 | 101,752 | 105,950 | | |
| Total | \$ 2,747,858 | \$ 1,957,559 | \$ 2,838,676 | \$ 2,742,214 | | |

7. Related Party Transactions

In the normal course of our business, we have entered into certain business relationships with entities in which EMG or First Reserve have control or significant influence through their equity investments. These relationships include agreements for the sale of our NGL production and the gathering, processing and transportation of our natural gas and NGL production. The NGL revenues recognized under such agreements were \$25.3 million and \$32.9 million during the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020 and December 31, 2019, we had accounts receivable – natural gas, oil and NGL sales of \$14.7 million and \$21.2 million, respectively, due from these purchasers. We also incurred gathering, processing and transportation expenses associated with these agreements of \$161.5 million and \$154.7 million during the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020 and December 31, 2019, we had \$99.0 million, respectively, due to companies associated with these agreements, which are presented as other current liabilities on the condensed consolidated balance sheets. For information regarding the credit support requirements due to certain related parties, see Note 8, *Pipeline Commitments*.

8. Commitments and Contingencies

Litigation Matters

We are periodically involved in litigation and regulatory proceedings, investigations and disputes, including matters relating to commercial transactions, operations, landowner disputes, royalty claims, property damage claims, contract actions and environmental, health and safety matters. We may also periodically be involved in disputes with our midstream counterparties, including disputes arising due to the overlapping nature of dedication provisions, ownership and contractual interests in the Utica Shale. A liability is recognized for any contingency that is probable of occurrence and reasonably estimable. We continually assess the likelihood of adverse judgments or outcomes in these matters, as well as potential ranges of possible losses, based on a careful analysis of each matter and, if necessary, with the assistance of outside legal counsel and other experts. We will continue to monitor the impact that litigation could have on us and will assess the impact of future events. Legal defense costs are accounted for in the period the costs are incurred.

We are defending against certain pending claims, have resolved a number of claims through negotiated settlements and have prevailed in various other lawsuits. Based on management's current assessment, we believe no pending or threatened lawsuit or dispute relating to our business operations is likely to have a material adverse effect on our consolidated financial position, results of operations or cash flows. The final resolution of such matters could exceed amounts accrued, however, and actual results could differ materially from management's estimates. For all such pending litigation, as of March 31, 2020, we have accrued \$9.4 million and associated interest, which is presented as other current liabilities on the condensed consolidated balance sheet.

Environmental Matters

We are subject to existing federal, state and local laws and regulations governing environmental matters, such as the Comprehensive Environmental Response, Compensation and Liability Act and similar statutes. From time to time, we are party to various environmental and regulatory proceedings in the ordinary course of business. Management does not believe the results of these environmental proceedings, individually or in the aggregate, will have a material adverse effect on us.

Commitments

The following table presents our undiscounted commitments under unconditional purchase obligations, excluding any reimbursement from working interest and royalty interest owners, that have initial or remaining non-cancelable terms in excess of one year as of March 31, 2020:

| (\$ in thousands) | Pipeline Commitments | Operating Leases | | Other Purchase Obligations | Total |
|-------------------|-----------------------------|------------------|------|-------------------------------|-----------------|
| Remaining in 2020 | \$ 486,928 | \$ 1,55 | 7 \$ | 1,743 | \$ 490,228 |
| 2021 | 666,258 | 1,64 | 5 | 2,000 | 669,904 |
| 2022 | 670,485 | 52: | 5 | 625 | 671,635 |
| 2023 | 671,268 | 7 |) | | 671,347 |
| 2024 | 663,159 | 5 | 1 | | 663,210 |
| Thereafter | 6,215,715 | - | - | | 6,215,715 |
| Total | \$ 9,373,813 | \$ 3,85 | 3 \$ | 4,368 | \$ 9,382,039 |

Pipeline Commitments

We have entered into certain pipeline capacity commitments with various counterparties in order to facilitate the delivery of our production to market and reduce the likelihood of possible production curtailments that may arise due to limited capacity. Through these contracts, we are committed to transport minimum daily natural gas or NGL volumes at negotiated rates or pay for any deficiencies. The amounts in the table above represent the gross amounts we are committed to pay; however, working interest owners and royalty interest owners, where appropriate, will be responsible for their proportionate share of these costs. To satisfy credit support requirements for these commitments, \$163.0 million in letters of credit and \$311.7 million in surety bonds were issued by us or on our behalf to certain transportation providers as of March 31, 2020. Our credit support includes support provided to certain related parties, which as of March 31, 2020 included \$121.3 million in letters of credit and \$184.0 million in surety bonds. For information regarding certain other transactions with related parties, see Note 7.

Operating Leases

We lease certain equipment, commercial vehicles and office space as part of our operations. See Note 1, *Adopted and Recently Issued Accounting Pronouncements*, for further discussion of our leases and the expected impact of Topic 842.

9. Other Current Liabilities

Our other current liabilities consisted of the following as of the dates indicated:

| | March 31, | | De | cember 31, |
|--|-----------|---------|----|------------|
| (§ in thousands) | | 2020 | | 2019 |
| Gathering, processing and transportation expense accrual | \$ | 130,049 | \$ | 131,524 |
| Drilling and completion cost accrual | | 69,813 | | 69,762 |
| Production and ad valorem taxes accrual | | 13,908 | | 26,494 |
| Other | | 44,728 | | 53,061 |
| Total Other Current Liabilities | \$ | 258,498 | \$ | 280,841 |

Management's Discussion and Analysis of Financial Condition and Results of Operations

Our Management's Discussion and Analysis of our Financial Condition and Results of Operations (MD&A) should be read in conjunction with our audited consolidated financial statements, the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" for the year ended December 31, 2019, in addition to the unaudited condensed consolidated financial statements and related notes, included within this quarterly report. The following discussion and analysis contains forward-looking statements that involve known and unknown risks, uncertainties and assumptions. The forward-looking statements are not historical facts, but rather reflect our future plans, estimates, beliefs and expected performance. In light of these risks, uncertainties and assumptions, the forward-looking events discussed may not occur. We do not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law.

Unless otherwise indicated or the context otherwise requires, references in this MD&A section to "we", "our" and "us" refer to Ascent Resources Utica Holdings, LLC together with its wholly-owned subsidiaries.

Overview

We are the seventh largest producer of natural gas in the United States in terms of daily production and are focused on exploring for, developing, producing and operating natural gas and oil properties in the Utica Shale. We are a wholly-owned subsidiary of Ascent Resources Operating, LLC (our Member) and an indirect wholly-owned subsidiary of Ascent Resources, LLC (our Parent). We were formed in 2013 by our private equity sponsors, primarily The Energy & Minerals Group and First Reserve Corporation, to utilize our technical expertise to acquire and exploit assets in the Utica Shale. Our asset base is concentrated in southern Ohio, where we target primarily the Point Pleasant interval of the Utica Shale, one of the premier North American natural gas and oil shale plays. Our largely contiguous footprint of approximately 348,000 net leasehold acres lies within the core of the southern Utica Shale and, as supported by our drilling results and those of offset operators, offers development opportunities with predictable and repeatable production profiles, low breakeven costs and industry-leading rates of return. We also own royalty interests in approximately 78,000 fee mineral acres that provide enhanced value without additional capital costs or operating expenses.

We are continuously focused on enhancing our drilling and completion techniques, minimizing costs and maximizing the ultimate recovery of natural gas, oil and natural gas liquids (NGL) from our assets, with the goal of generating top-tier corporate-level returns and sustainable free cash flow.

2020 Highlights

- Net income increased by \$170.7 million to \$85.4 million for the three months ended March 31, 2020 from a net loss of \$85.3 million for the three months ended March 31, 2019.
- Net production increased 15% to 182.8 billion cubic feet equivalent (bcfe) for the three months ended March 31, 2020 from 159.1 bcfe for the three months ended March 31, 2019 as a result of our consistently successful drilling and completion activity. Our net daily production for the three months ended March 31, 2020 averaged 2.0 bcfe per day and was comprised of approximately 85% natural gas, 4% oil and 11% NGL.
- We spud 19 wells, hydraulically fractured 33 wells and turned-in-line 22 new wells.
- Realized hedging settlement gains were \$146.1 million during the three months ended March 31, 2020, which improved the average realized sales price during the quarter by \$0.80 per mcfe.
- Through multiple transactions, we have reduced the outstanding principal of our debt by \$93.4 million during the three months ended March 31, 2020.

COVID-19 Pandemic

On January 30, 2020, the World Health Organization (WHO) announced a global health emergency due to the spread of a novel coronavirus (COVID-19), which was classified as a pandemic in March 2020 based on the rapid increase in global exposure. Under the guidance of the WHO and the Centers for Disease Control and Prevention (CDC) and in an effort to slow the spread of the virus, many local, state and national governments implemented new laws and regulations which led to a steep decline in the global demand for oil and, to a lesser extent, natural gas. Recent actions by OPEC and other oil producers to curtail production and reduce supply have failed to keep pace with lessened demand, resulting in oil production stressing storage limits. These actions along with the COVID-19 related decreases in natural gas and oil demand have resulted in a significant decline in prices and an increasingly volatile market. It is unclear how long the oversupplied market will continue or when prices will recover to more historical levels.

The decrease in demand for oil, specifically, has led to some of our oil purchasers issuing force majeure notices requiring the curtailment of a portion of our oil production. Because our operations focus primarily on the production of natural gas, we currently do

not expect this curtailment to have a material impact on our production volumes or revenue for 2020. Increased curtailments of oil production in the United States may lead to a decline in the associated natural gas production, which could improve the supply-demand imbalance that the natural gas market currently faces.

We maintain a robust hedging program to mitigate natural gas and oil price volatility. As of March 31, 2020, 79% of our projected natural gas production for the remainder of 2020 was hedged at a weighted average price of \$2.63 per mmbtu, and 70% of our projected natural gas production for 2021 was hedged at a weighted average price of \$2.55 per mmbtu. Additionally, as of March 31, 2020, 62% of our projected oil production for the remainder of 2020 was hedged at a weighted average price of \$43.43 per barrel, and 58% of our projected oil production for 2021 was hedged at a weighted average price of \$49.17 per barrel.

Although our reserves consist predominantly of natural gas and we have hedged a substantial portion of our projected natural gas production for 2020 and 2021, if the pricing environment for natural gas continues to decline over an extended period, it may in the future lead to (i) a reduction in reserves, including the possible removal of proved undeveloped reserves, (ii) an impairment of proved and/or unproved natural gas and oil properties, (iii) further curtailment of production and/or (iv) a reduction in the borrowing base of our Credit Facility.

In order to safeguard the health of our employees, contractors and the community, while continuing to operate responsibly, we have implemented several precautionary steps which follow the guidance of the WHO, the CDC, municipalities and governments across our operations. These steps include the majority of our office staff working remotely and personnel in the field following guidelines to prevent the spread of the virus while maintaining critical operations. We may have to take further actions as may be required by government authorities or that we determine are in the best interest of our employees, contractors and the community. Our desire is to do everything possible to protect the health of our people, their families and the community while continuing to operate responsibly and maintain our resiliency.

The full impact of COVID-19 and the volatility in commodity prices continues to evolve, and, although we are monitoring both closely, we cannot be certain as to the full magnitude that they will have on our future financial condition, liquidity and results of operations.

Liquidity and Capital Resources

Liquidity Overview

Our natural gas, oil and NGL operations, including our exploration, drilling, completions and production operations, are capital intensive activities that require access to significant capital. We continually evaluate our capital needs and compare them to our capital resources. Historically, our primary sources of funds have been through equity contributions from our Parent, cash flows from operations, draws on our senior secured revolving credit facility (Credit Facility) and proceeds from the issuance of debt. Based on existing market conditions and our expected liquidity needs, among other factors, we may use a portion of our cash flows from operations, proceeds from divestitures, securities offerings or Credit Facility borrowings to repay debt prior to scheduled maturities, and we may seek opportunities to refinance all or a portion of our Senior Notes (defined below), including through cash purchases, exchanges, open market purchases, privately negotiated transactions or otherwise.

As of March 31, 2020, we had a cash balance of \$13.0 million and availability under our Credit Facility of \$684.0 million. In December 2019, the Credit Facility agreement was amended, which extended the maturity date to April 1, 2024, reaffirmed the borrowing base at \$2.0 billion and reduced the amount authorized for letters of credit to \$250.0 million. The maturity date will accelerate to December 30, 2021 if more than \$200.0 million of the 2022 Notes are outstanding as of December 30, 2021. In May 2020, the Credit Facility was redetermined, and the borrowing base was reduced to \$1.85 billion. Based on our expected operating cash flows, Credit Facility availability and cash on hand, we anticipate being able to satisfy all of our financial obligations and commitments for the next twelve months.

Sources and Uses of Funds

Our primary source of funds is net cash flow provided by operating activities, which was approximately \$292.1 million and \$341.7 million for the three months ended March 31, 2020 and 2019, respectively. The decrease in operating cash flow in 2020 was primarily the result of decreases in the average realized sales price of natural gas, oil and NGL, which were partially offset by increases in the volumes produced.

The following table presents the uses of cash and cash equivalents:

| | | Three Mo | nths l | Ended |
|--|----|----------|--------|---------|
| | | Mar | ch 31 | , |
| (\$ in thousands) | _ | 2020 | | 2019 |
| Natural Gas and Oil Expenditures: | | | | |
| Drilling and completion costs | \$ | 157,452 | \$ | 268,518 |
| Acquisitions of natural gas and oil properties | | 27,096 | | 35,586 |
| Interest capitalized ^(a) | | 18,700 | | 14,464 |
| Total Natural Gas and Oil Expenditures | | 203,248 | | 318,568 |
| Other Uses of Cash and Cash Equivalents: | | | | |
| Repayment of credit facility borrowings, net | | 35,000 | | 23,000 |
| Repayment of long-term debt | | 47,031 | | — |
| Additions to other property and equipment | | 1,212 | | 694 |
| Cash paid for debt issuance costs | | | | 62 |
| Total Other | | 83,243 | | 23,756 |
| Total Uses of Cash and Cash Equivalents | \$ | 286,491 | \$ | 342,324 |

(a) Interest capitalized during the three months ended March 31, 2020 consists of \$18.3 million related to unproved leasehold and \$0.4 million related to drilling and completions. Interest capitalized during the three months ended March 31, 2019 consists of \$14.5 million related to unproved leasehold.

Our drilling and completion costs were \$157.5 million and \$268.5 million for the three months ended March 31, 2020 and 2019, respectively. The decrease in drilling and completion costs in 2020 is due to decreased drilling and completions activity. We operated an average of three rigs during the three months ended March 31, 2020 compared to an average of six rigs during the same period in 2019. Additionally, we spud 19 wells, hydraulically fractured 33 wells and turned-in-line 22 new wells during the three months ended March 31, 2020 compared to the same period in 2019 during which we spud 25 wells, hydraulically fractured 23 wells and turned-in-line 27 new wells.

We spent cash of \$27.1 million and \$35.6 million during the three months ended March 31, 2020 and 2019, respectively, primarily related to the acquisition of leases arising in the ordinary course of business. We spent cash of \$47.0 million during the three months ended March 31, 2020 to repurchase \$50.3 million of principal of our 2022 Notes, plus accrued and unpaid interest, and \$8.1 million of principal of our Convertible Notes, plus accrued and unpaid interest.

Certain Indebtedness

Credit Facility

The amount available to be borrowed under the Credit Facility is subject to a borrowing base that is required to be redetermined semiannually on or about April 1 and October 1 of each year based on the estimated value and future net cash flows of our proved natural gas, oil and NGL reserves and our commodity derivative positions as determined by lenders under the Credit Facility at their discretion. Our Credit Facility matures on April 1, 2024. The maturity date will accelerate to December 30, 2021 if more than \$200.0 million of the 2022 Notes are outstanding as of December 30, 2021. As of March 31, 2020, the borrowing base was a fully committed \$2.0 billion, and we had \$1.2 billion of borrowings outstanding and \$163.0 million of letters of credit outstanding under the Credit Facility. In May 2020, the Credit Facility was redetermined, capacity was increased for junior secured indebtedness and the borrowing base was reduced to \$1.85 billion.

Under the Credit Facility agreement, we may borrow either base rate loans or Eurodollar loans, and as of March 31, 2020, all of the borrowings under the Credit Facility were Eurodollar loans. Principal amounts borrowed are payable on the maturity date, and interest is payable at the end of the applicable interest period. Eurodollar loans bear interest at a rate per annum equal to the London Interbank Offered Rate (LIBOR) plus an applicable margin ranging from 1.75% to 2.75% per annum. Due to the weighted average 1-month LIBOR being 0.85% for the applicable interest periods on the most recent election dates, we were subject to a weighted average rate of 3.10% per annum as of March 31, 2020. We may repay any amounts borrowed prior to the maturity date without any premium or penalty. The Credit Facility is secured by liens on substantially all of our assets, including our natural gas and oil properties, and guarantees from our subsidiaries other than any subsidiary that we have designated as an unrestricted subsidiary. As of March 31, 2020, we were in compliance with all applicable financial covenants under the Credit Facility. See Note 4, *Credit Facility*, of the notes to our condensed consolidated financial statements included in this report for further discussion of the terms of the Credit Facility.

In October 2018, we issued \$600.0 million in aggregate principal amount of the 2026 Notes in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act. The 2026 Notes are due on November 1, 2026, and interest is payable at an annual rate of 7.00% on May 1 and November 1 of each year. We used the proceeds primarily to redeem \$525.0 million of outstanding principal of the 2022 Notes and pay accrued and unpaid interest up to, but excluding, the date of the redemption. The remaining net proceeds were used to repay borrowings under the Credit Facility. As of March 31, 2020, we had \$600.0 million in aggregate principal amount of the 2026 Notes outstanding.

In April 2017, we issued \$1.5 billion in aggregate principal amount of senior unsecured notes (2022 Notes) in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act. The 2022 Notes are due on April 1, 2022, and interest is payable at an annual rate of 10.00% on April 1 and October 1 of each year. Our net proceeds were used to repay and retire all of our previously outstanding second lien term loans and for general corporate purposes.

During the three months ended March 31, 2020, we repurchased approximately \$50.3 million of outstanding principal amount of the 2022 Notes for \$35.3 million, plus accrued and unpaid interest, and recorded a \$14.4 million gain, including the write-off of unamortized debt issuance costs and discounts. As of March 31, 2020, we had \$924.7 million in aggregate principal amount of the 2022 Notes outstanding.

At any time prior to November 1, 2021, we may redeem up to 40% of the aggregate principal amount of the 2026 Notes at a price equal to 107% of the principal amount, plus accrued and unpaid interest up to, but excluding, the redemption date, with an amount of cash not greater than the net cash proceeds of one or more equity offerings, subject to certain conditions. Additionally, at any time prior to April 1, 2020 for the 2022 Notes or November 1, 2021 for the 2026 Notes (together, the Senior Notes), we may redeem some or all of the Senior Notes subject to a make-whole premium plus accrued and unpaid interest to, but excluding, the redemption date. We may redeem some or all of the Senior Notes at the applicable redemption prices (expressed as percentages of the principal amount for the periods noted) set forth in the table below:

| Senior Notes | Redemption Period | Redemption Price |
|--------------|---|------------------|
| 2022 Notes | April 1, 2020 through March 31, 2021 | 107.500% |
| 2022 Notes | April 1, 2021 through September 30, 2021 | 105.000% |
| 2022 Notes | October 1, 2021 and thereafter | 100.000% |
| | | |
| 2026 Notes | November 1, 2021 through October 31, 2022 | 103.500% |
| 2026 Notes | November 1, 2022 through October 31, 2023 | 102.333% |
| 2026 Notes | November 1, 2023 through October 31, 2024 | 101.167% |
| 2026 Notes | November 1, 2024 and thereafter | 100.000% |

We are not prohibited from acquiring the Senior Notes by means other than a redemption, whether pursuant to a tender offer, open market purchase or otherwise, so long as the acquisition does not violate the terms of the applicable indenture. Upon the occurrence of a qualifying change of control, we are required to offer to repurchase all or any part of the Senior Notes at a purchase price in cash equal to 101% of the aggregate principal amount of the Senior Notes to be repurchased, plus accrued and unpaid interest.

The Senior Notes are senior unsecured obligations and rank equally in right of payment with all of our existing and future senior unsecured debt, and will rank senior in right of payment to all our future subordinated debt. The Senior Notes are effectively subordinated to all of our existing and future secured debt to the extent of the value of the collateral securing such indebtedness.

As of March 31, 2020, we were in compliance with all applicable covenants of the 2022 Notes and 2026 Notes indentures. See Note 4, *Senior Notes*, of the notes to our condensed consolidated financial statements included in this report for further discussion of the terms of the 2022 Notes and 2026 Notes.

Convertible Notes

In 2014, we issued \$1.0 billion of convertible notes due 2021 (Convertible Notes). Through multiple transactions from 2015 through 2017, we repurchased or otherwise retired \$950.3 million in aggregate principal and accrued and unpaid interest of the Convertible Notes. During the three months ended March 31, 2020, we repurchased an additional \$8.1 million of outstanding principal amount of the Convertible Notes for \$11.7 million, plus accrued and unpaid interest, and recorded a \$0.9 million loss, including the write-off of debt issuance costs, discounts and premiums.

As of March 31, 2020, we had \$69.2 million in aggregate principal of the Convertible Notes outstanding. The Convertible Notes mature on March 1, 2021 and are subordinate to the Senior Notes, which rank senior in right of payment. Interest may be paid in cash or in kind semi-annually in arrears on March 1 and September 1 of each year and is currently payable at an annual rate of 6.50%. We elected to pay interest in kind on each interest payment date from September 2015 through September 2019. Upon maturity, unless earlier repurchased or converted, we will be required to redeem the Convertible Notes at 153.8% of the outstanding principal value, plus accrued and unpaid interest up to, but not including, the maturity date. We accrete the 53.8% premium to interest expense through the maturity date using the effective interest method.

Contractual Obligations and Off-Balance Sheet Arrangements

We occasionally enter into arrangements that can give rise to contractual obligations and off-balance sheet commitments, such as pipeline transportation commitments, drilling rig commitments, and various other commitments in the ordinary course of business. See Note 8 of the notes to our condensed consolidated financial statements included in this report for further details of our commitments.

New Accounting Pronouncements

See Note 1, Adopted and Recently Issued Accounting Pronouncements, of the notes to our condensed consolidated financial statements included in this report for a description of recent accounting pronouncements.

Results of Operations

The following table sets forth certain information for the periods indicated regarding our net production volumes; natural gas, oil and NGL sales; average sales prices received; and certain of our operating expenses. Average sales prices listed in the table below are based on thousand cubic feet (mcf) of natural gas and barrels (bbls) of oil and NGL and thousand cubic feet equivalent (mcfe):

| | Three Mor Mare | | nths Ended h 31, | |
|---|-------------------|----|---------------------|--|
| | 2020 | | 2019 | |
| Net Production Volumes: | | | | |
| Natural gas (mmcf) | 155,814 | | 144,644 | |
| Oil (mbbls) | 1,253 | | 767 | |
| NGL (mbbls) | 3,250 | | 1,641 | |
| Natural Gas Equivalent (mmcfe) | 182,832 | | 159,102 | |
| 1 | | _ | , | |
| Natural Gas, Oil and NGL Sales (\$ in thousands): | | | | |
| Natural gas | \$ 292,518 | \$ | 460,378 | |
| Oil | 49,554 | | 37,543 | |
| NGL | 36,003 | | 35,442 | |
| Settlements of commodity derivatives | 146,108 | | (30,118) | |
| Change in fair value of commodity derivatives | 62,375 | | (127,071) | |
| Total | \$ 586,558 | \$ | 376,174 | |
| | | _ | | |
| Average Daily Net Production Volumes: | | | | |
| Natural gas (mmcf/d) | 1,712 | | 1,607 | |
| Oil (mbbls/d) | 14 | | 9 | |
| NGL (mbbls/d) | 36 | | 18 | |
| Natural Gas Equivalent (mmcfe/d) | 2,009 | | 1,768 | |
| Average Sales Prices: | | | | |
| Natural gas (\$/mcf) | \$ 1.88 | \$ | 3.18 | |
| Oil (\$/bbl) | \$ 39.55 | \$ | 48.87 | |
| NGL (\$/bbl) | \$ 11.08 | \$ | 21.59 | |
| | | | | |
| Natural Gas Equivalent (\$/mcfe) | \$ 2.07 | \$ | 3.35 | |
| Settlements of commodity derivatives (\$/mcfe) | 0.80 | | (0.19) | |
| Average sales price, after effects of settled derivatives (\$/mcfe) | \$ 2.87 | \$ | 3.16 | |
| | | | | |
| Operating Expenses (\$/mcfe): | | | | |
| Lease operating expenses | \$ 0.11 | \$ | 0.11 | |
| Gathering, processing and transportation expenses | \$ 1.27 | \$ | 1.26 | |
| Production and ad valorem taxes | \$ 0.05 | \$ | 0.05 | |
| General and administrative expenses | \$ 0.08 | \$ | 0.10 | |
| Natural gas and oil depreciation, depletion and amortization | \$ 0.96 | \$ | 1.00 | |
| Depreciation and amortization of other assets | \$ 0.01 | \$ | _ | |

Comparison of Three Months Ended March 31, 2020 and 2019

Natural Gas Sales. During the three months ended March 31, 2020 and 2019, natural gas sales (excluding the effects of derivatives) were \$292.5 million and \$460.4 million, respectively. During the three months ended March 31, 2020 and 2019, we sold 155.8 bcf and 144.6 bcf of natural gas, at weighted average prices of \$1.88 and \$3.18 per mcf, respectively (excluding the effects of derivatives). The \$167.9 million decrease in natural gas sales (excluding the effects of derivatives) for the three months ended March 31, 2020 compared to the three months ended March 31, 2019 was driven by a \$1.30 per mcf decrease in the average sales price received for natural gas, which was partially offset by an 8% increase in natural gas production.

We recognized a \$131.3 million gain on natural gas derivatives during the three months ended March 31, 2020 comprised of \$124.8 million of net settlement gains and a \$6.5 million increase in the fair value. We recognized a \$99.5 million loss on natural gas derivatives during the three months ended March 31, 2019 comprised of a \$69.3 million decrease in the fair value and \$30.2 million of net settlement losses.

A change in natural gas prices has a significant impact on our sales and cash flows. Assuming our production levels for the three months ended March 31, 2020 remained constant and without considering the effect of derivatives, an increase or decrease of \$0.10 per mcf of natural gas sold would have resulted in an increase or decrease in sales and cash flows of approximately \$15.6 million.

Oil Sales. During the three months ended March 31, 2020 and 2019, oil sales (excluding the effects of derivatives) were \$49.6 million and \$37.5 million, respectively. During the three months ended March 31, 2020 and 2019, we sold 1,253 mbbls and 767 mbbls at weighted average prices of \$39.55 and \$48.87 per bbl, respectively, (excluding the effects of derivatives). The \$12.0 million increase in oil sales (excluding the effects of derivatives) for the three months ended March 31, 2020 compared to the three months ended March 31, 2019 was driven by a 63% increase in oil production, partially offset by a \$9.32 per bbl decrease in the average sales price received for oil.

We recognized a \$74.3 million gain on oil derivatives during the three months ended March 31, 2020 comprised of a \$55.0 million increase in the fair value and \$19.3 million of net settlement gains. We recognized a \$57.3 million loss on oil derivatives during the three months ended March 31, 2019 comprised of a \$57.5 million decrease in fair value, partially offset by \$0.2 million of net settlement gains.

A change in oil prices has a direct impact on our sales and cash flows. Assuming our production levels for the three months ended March 31, 2020 remained constant and without considering the effects of derivatives, an increase or decrease of \$1.00 per barrel of oil sold would have resulted in an increase or decrease in sales and cash flows of approximately \$1.3 million.

NGL Sales. During the three months ended March 31, 2020 and 2019, NGL sales (excluding the effects of derivatives) were \$36.0 million and \$35.4 million, respectively. During the three months ended March 31, 2020 and 2019, we sold 3,250 mbbls and 1,641 mbbls, at weighted average prices of \$11.08 and \$21.59 per bbl, respectively, (excluding the effects of derivatives). The \$0.6 million increase in NGL sales (excluding the effects of derivatives) for the three months ended March 31, 2020 compared to the three months ended March 31, 2019 was driven by a 98% increase in NGL production, partially offset by a \$10.51 per bbl decrease in the average sales price received for NGL.

We recognized a \$2.8 million gain on NGL derivatives during the three months ended March 31, 2020 comprised of \$2.0 million of net settlement gains and a \$0.8 million increase in the fair value. We recognized a \$0.3 million loss on NGL derivatives during the three months ended March 31, 2019 due to a decrease in the fair value.

A change in NGL prices has a direct impact on our sales and cash flows. Assuming our production levels for the three months ended March 31, 2020 remained constant, an increase or decrease of \$1.00 per barrel of NGL sold would have resulted in an increase or decrease in sales and cash flows of approximately \$3.3 million.

Lease Operating Expenses. Lease operating expenses were \$20.9 million and \$17.9 million for the three months ended March 31, 2020 and 2019, respectively. On a per unit basis, lease operating expenses remained flat and were \$0.11 per mcfe during both the three months ended March 31, 2020 and 2019. Total lease operating expenses increased as a result of an increase in producing wells and an associated increase in production costs during the three months ended March 31, 2020 compared to the same period in 2019.

Gathering, Processing and Transportation Expenses. Gathering, processing and transportation expenses were \$232.7 million and \$200.1 million for the three months ended March 31, 2020 and 2019, respectively. On a per unit basis, gathering, processing and transportation expenses were \$1.27 and \$1.26 per mcfe during the three months ended March 31, 2020 and 2019, respectively. Total gathering, processing and transportation expenses increased as a result of increased production during the three months ended March 31, 2020 compared to the same period in 2019.

Production and Ad Valorem Taxes. Production and ad valorem taxes were \$9.8 million and \$8.5 million for the three months ended March 31, 2020 and 2019, respectively. Production taxes have increased as production volumes have increased and were \$5.2 million and \$4.7 million during the three months ended March 31, 2020 and 2019, respectively. Production taxes are calculated using volume-based formulas that produce higher absolute costs as production increases. On a per unit basis, production taxes remained flat and were \$0.03 per mcfe during the three months ended March 31, 2020 and 2019, respectively.

Ad valorem taxes were \$4.6 million and \$3.8 million during the three months ended March 31, 2020 and 2019, respectively. Ad valorem taxes are assessed annually based on wells producing at the end of the previous year. The amount of tax is based on an appraised value of each well including various factors such as historical production, valuation factors set by the state and tax rates determined by the various counties. As such, total ad valorem taxes have increased due to an increase in producing wells.

Exploration Expenses. Exploration expenses were \$27.0 million and \$39.3 million for the three months ended March 31, 2020 and 2019, respectively. During the three months ended March 31, 2020 and 2019, we impaired \$26.3 million and \$38.7 million, respectively, of unproved natural gas and oil properties for which the leases are expected to expire. As we continue to review our acreage position and high grade our drilling inventory, focusing on our core type curve areas, additional leasehold impairments and abandonments may be recorded.

General and Administrative Expenses. General and administrative expenses were \$14.4 million and \$16.3 million for the three months ended March 31, 2020 and 2019, respectively. On a per unit basis, general and administrative expenses were \$0.08 and \$0.10 per mcfe during the three months ended March 31, 2020 and 2019. The decrease is primarily a result of achieving corporate efficiencies and increased production during the three months ended March 31, 2020 compared to the same period in 2019.

Natural Gas and Oil Depreciation, Depletion and Amortization. Depreciation, depletion and amortization (DD&A) of natural gas and oil properties was \$175.6 million and \$159.1 million for the three months ended March 31, 2020 and 2019, respectively. The average DD&A rate per mcfe, which is a function of capitalized costs and the related underlying reserves, was \$0.96 and \$1.00 per mcfe during the three months ended March 31, 2020 and 2019, respectively. The per unit decrease from March 31, 2019 to March 31, 2020 was the result of an 11% increase in total proved reserves, which have increased primarily through the drill bit, and a decrease in development costs.

Interest Expense. Interest expense was \$33.9 million and \$21.1 million for the three months ended March 31, 2020 and 2019, respectively, detailed as follows along with our weighted average debt outstanding:

| | Three Months Ended | | | Ended |
|--|---------------------------|-----------|------|-----------|
| | | Marc | h 31 | , |
| (\$ in thousands) | _ | 2020 | | 2019 |
| Interest expense on Credit Facility | \$ | 13,435 | \$ | 16,223 |
| Interest expense on 2022 Notes | | 24,080 | | 24,375 |
| Interest expense on 2026 Notes | | 10,503 | | 10,500 |
| Interest expense on Convertible Notes | | 1,176 | | 1,200 |
| Amortization of debt discounts, premium and issuance costs | | 5,934 | | 5,435 |
| Other | | 1,476 | | 765 |
| Capitalized interest | | (22,684) | | (37,355) |
| Total Interest Expense, net | \$ | 33,920 | \$ | 21,143 |
| | | | | |
| Weighted Average Debt Outstanding: | | | | |
| Credit Facility | \$ | 1,194,154 | \$ | 1,009,178 |
| 2022 Notes | | 961,314 | | 975,000 |
| 2026 Notes | | 600,000 | | 600,000 |
| Convertible Notes | | 71,874 | | 73,356 |
| Weighted Average Debt Outstanding | \$ | 2,827,342 | \$ | 2,657,534 |

The increase in interest expense during the three months ended March 31, 2020 compared to the same period in 2019 was primarily due to reduced capitalized interest caused by a decrease in the weighted average borrowing rate and a decrease in development activity.

Gains on Purchases or Exchanges of Debt. We recognized a net gain on purchases or exchanges of debt of \$13.5 million during the three months ended March 31, 2020 primarily due to us repurchasing a portion of our 2022 Notes, which resulted in a \$14.4 million gain. This was partially offset by the repurchase of a portion of our Convertible Notes, which resulted in a loss of \$0.9 million. See Note 4, Senior Notes and Convertible Notes, of the notes to our condensed consolidated financial statements included in this report for further discussion of our repurchases of debt.

Quantitative and Qualitative Disclosure About Market Risk

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

Commodity Demand and Price Risk

Our primary market risk exposure is in the prices we receive for our natural gas, oil and NGL production. Realized pricing is primarily driven by spot regional market prices applicable to our natural gas, oil and NGL production. Pricing for natural gas, oil and NGL production is volatile and unpredictable, and we expect this volatility to continue in the future. The prices we expect to receive for our natural gas, oil and NGL production will depend on many factors outside of our control, including the supply of, and demand for, natural gas, oil and NGL, the level of economic activity in the United States and globally, the performance of specific industries and the volatility of natural gas, oil and NGL prices at various delivery points. During the three months ended March 31, 2020 and 2019, the average daily Henry Hub spot market price of natural gas was \$1.88 per mmbtu and \$2.89 per mmbtu, respectively, and the average daily West Texas Intermediate oil price was \$45.78 per bbl and \$54.90 per bbl, respectively. Approximately 89% of our March 31, 2020 proved reserves were natural gas; therefore, changes in realized natural gas pricing will affect us more than changes in realized oil or NGL priceing.

To mitigate our exposure to adverse commodity price changes, we utilize commodity derivative instruments. We do not enter into commodity derivative instruments for speculative or trading purposes. As of March 31, 2020, our natural gas, oil and NGL derivative instruments consisted of the following types of instruments:

- Swaps. We receive a fixed price and pay a variable market price to the counterparty for the hedged commodity.
- *Call Options*. We sell call options in exchange for a premium, which establish the maximum price we will receive for contracted commodity volumes. At the time of settlement, if the market price exceeds the fixed price of the call option, we pay the difference to the counterparty. From time to time, we may sell future call options to obtain more favorable strike prices on swap or collar contracts.
- *Collars*. These instruments contain a fixed floor price (put) and ceiling price (call). If the market price exceeds the call strike price, we pay the difference between market price and the strike price of the sold call to the counterparty. If the market price falls below the put strike price, we receive the difference between market price and the strike price of the purchased put from the counterparty. If the market price is between the put and the call strike prices, no payments are due to or from either party.
- *Three-Way Collars*. Three-way collars consist of a traditional collar and the sale by us of an additional put option in exchange for more favorable strike prices on purchased put or sold call options.
- *Basis Swaps*. Given that our natural gas production is sold at various delivery points that at times may have material spreads or volatility relative to NYMEX, basis swaps are periodically used at the following basis points to fix the differential between product prices at one market location relative to NYMEX: Chicago (Citygate), Dawn (Ontario), MichCon, Rex Zone 3, Dominion South, TCO and Tetco M-2. Under these instruments, we receive the fixed price differential and pay the floating market price differential to the counterparty for the contracted volumes.

As of March 31, 2020, we had a net asset commodity derivative position of \$381.3 million. The following table sets forth the volumes per day associated with our outstanding natural gas derivative instruments as of March 31, 2020, the contracted weighted average natural gas prices, the contracted weighted average basis swap spreads and the estimated fair values:

| | | | Weighted Average Prices (\$/mmbtu) | | | | | | | | | |
|----------------------------|-----------------------------|----|------------------------------------|----|--------------|----|---------------|----|--------------|----|-------------------|--|
| | Average Volume (mmbtu/d) | | Swap | 5 | Sold Call | | Purchased Put | | Sold Put | | Fair Value | |
| | | | Strike Price | | Strike Price | | Strike Price | | Strike Price | | (\$ in thousands) | |
| Natural gas: | | | | | | | | | | | | |
| Swaps: | | | | | | | | | | \$ | 371,030 | |
| Remaining in 2020 | 1,466,000 | \$ | 2.70 | | | | | | | | | |
| 2021 | 1,235,000 | \$ | 2.56 | | | | | | | | | |
| 2022 | 1,010,000 | \$ | 2.51 | | | | | | | | | |
| 2023 | 450,000 | \$ | 2.46 | | | | | | | | | |
| 2024 | 140,000 | \$ | 2.47 | | | | | | | | | |
| Collars: | | | | | | | | | | | 25,494 | |
| Remaining in 2020 | 240,000 | | | \$ | 2.70 | \$ | 2.18 | | | | | |
| 2021 | 10,000 | | | \$ | 2.91 | \$ | 2.50 | | | | | |
| Three-way collars: | | | | | | | | | | | 10,616 | |
| 2021 | 270,000 | | | \$ | 2.91 | \$ | 2.50 | \$ | 2.00 | | | |
| 2022 | 160,000 | | | \$ | 3.00 | \$ | 2.50 | \$ | 2.01 | | | |
| Call options: | | | | | | | | | | | (84,757) | |
| Remaining in 2020 | 250,000 | | | \$ | 3.00 | | | | | | | |
| 2021 | 335,000 | | | \$ | 3.02 | | | | | | | |
| 2022 | 360,000 | | | \$ | 2.99 | | | | | | | |
| 2023 | 370,000 | | | \$ | 2.89 | | | | | | | |
| 2024 | 400,000 | | | \$ | 2.84 | | | | | | | |
| Basis swaps: | | | | | | | | | | | 71 | |
| Remaining in 2020 | 866,000 | \$ | (0.34) | | | | | | | | | |
| 2021 | 423,000 | \$ | (0.29) | | | | | | | | | |
| 2022 | 45,000 | \$ | (0.14) | | | | | | | | | |
| Total Estimated Fair Value | | | | | | | | | | \$ | 322,454 | |

The following table sets forth the volumes per day associated with our outstanding oil derivative instruments as of March 31, 2020, the contracted weighted average oil prices and the estimated fair values:

| | | Weighted Average Prices (\$/bbl) | | | | | | | | | | |
|-----------------------------------|----------------|----------------------------------|--------------|----|--------------|----|---------------|----|--------------|--------|--------------|--|
| | Average Volume | | Swap | | Sold Call | | Purchased Put | | Sold Put | | Fair Value | |
| | (bbl/d) | 5 | Strike Price | S | strike Price | : | Strike Price | : | Strike Price | (\$ ir | n thousands) | |
| Oil: | | | | | | | | | | | | |
| Swaps: | | | | | | | | | | \$ | 49,406 | |
| Remaining in 2020 | 4,200 | \$ | 56.81 | | | | | | | | | |
| 2021 | 4,000 | \$ | 48.34 | | | | | | | | | |
| Collars: | | | | | | | | | | | 92 | |
| Remaining 2020 | 2,700 | | | \$ | 35.94 | \$ | 22.25 | | | | | |
| Three-way collars: | | | | | | | | | | | 2,728 | |
| 2021 | 1,000 | | | \$ | 65.30 | \$ | 52.50 | \$ | 42.50 | | | |
| Call options: | | | | | | | | | | | (237) | |
| Remaining in 2020 | 3,800 | | | \$ | 70.00 | | | | | | | |
| 2021 | 3,500 | | | \$ | 70.00 | | | | | | | |
| Total Estimated Fair Value | | | | | | | | | | \$ | 51,989 | |

The following table sets forth the average volumes per day associated with our outstanding NGL derivative instruments as of March 31, 2020, the contracted weighted average NGL prices and the estimated fair values:

| | | Weighted Average Prices (\$/bbl) | | | | | | |
|----------------------------|----------------|----------------------------------|--------------|--------|---------------------------------|--|--|--|
| | Average Volume | Swap | Sold Call | F | Fair Value (\$ in thousands) | | | |
| | (bbl/d) | Strike Price | Strike Price | (\$ in | | | | |
| NGL: | | | | | | | | |
| Swaps - Propane: | | | | \$ | 6,850 | | | |
| Remaining in 2020 | 1,500 | \$ 30.14 | | | | | | |
| Call options - Propane: | | | | | (22) | | | |
| Remaining in 2020 | 3,150 | | \$ 33.60 |) | | | | |
| Total Estimated Fair Value | | | | \$ | 6,828 | | | |

The fair value of our derivative instruments is largely influenced by the future prices of natural gas, oil and NGL. The following table sets forth the changes in the fair value of our derivative instruments due to a hypothetical 10% change in future prices as of March 31, 2020. However, any realized derivative gain or loss would be substantially offset by a decrease or increase, respectively, in the actual revenue received from the sale of our production associated with the derivative instrument.

| (\$ in thousands) | pothetical 10% rease in Future Prices | Hypothetical 10% Decrease in Future Prices | | |
|-------------------|---|--|---------|--|
| Natural gas | \$ (394,141) | \$ | 375,815 | |
| Oil | \$ (10,631) | \$ | 10,197 | |
| NGL | \$ (564) | \$ | 559 | |

Counterparty Credit Risk

Our derivative instruments expose us to counterparty credit risk. Credit risk is the risk of loss from counterparties not performing under the terms of the derivative instrument. Adverse moves within the financial or commodities markets could negatively impact our counterparties' ability to fulfill obligations to us. To minimize such risk, our derivative contracts are with multiple counterparties, reducing our exposure to any individual counterparty. We only enter into derivative contracts with counterparties that we determine are creditworthy, and such creditworthiness is subject to periodic review.

Customer Credit Risk

We are subject to credit risk resulting from the concentration of our natural gas, oil and NGL receivables. If our largest customers stopped purchasing natural gas, oil or NGL from us, our revenues could decline and our operating results and financial condition could be harmed; however, we do not believe the loss of any single customer would materially impact our operating results, as natural gas, oil and NGL are fungible products with well-established markets and numerous customers. We historically have not incurred losses on our natural gas, oil and NGL receivables.

We also have joint interest receivables, which arise from billings to entities that own working interests in the wells we operate. These entities participate in our wells primarily based on their ownership in leases. We have little ability to control whether these entities will participate in our wells but can require these entities to prepay drilling costs. We historically have not incurred losses on our joint interest receivables.

Interest Rate Risk

Borrowings under the Credit Facility bear interest at a variable tiered rate based on facility usage plus the 1-month LIBOR, resulting in a weighted average interest rate of 3.10% as of March 31, 2020. The LIBOR component of our interest related to borrowings under the Credit Facility exposes us to interest rate risk. A 1.00% increase in LIBOR for the three months ended March 31, 2020 would have resulted in an estimated increase of \$3.0 million in interest expense on borrowings under the Credit Facility. As of March 31, 2020, the Convertible Notes, 2022 Notes and 2026 Notes bore interest at fixed rates of 6.50%, 10.00% and 7.00%, respectively, resulting in no interest rate risk on such instruments. We had no outstanding interest rate derivatives at March 31, 2020.

Inflation

Inflation in the United States has been relatively low in recent years and did not have a material impact on our results of operations during 2019 or the three months ended March 31, 2020. Although the impact of inflation has been insignificant recently, it is still a factor in the United States economy, and we tend to experience inflationary pressure on the cost of oilfield services and equipment as natural gas, oil and NGL prices and drilling activity increase.