

BARNWELL INDUSTRIES INC

Form 10-K

December 20, 2018

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 1-5103

BARNWELL INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

72-0496921

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

1100 Alakea Street, Suite 2900, Honolulu, Hawaii 96813-2840

(Address of principal executive offices) (Zip code)

Registrant's telephone number, including area code: (808) 531-8400

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

| Title of each class | Name of each exchange on which registered |
|---------------------|---|
|---------------------|---|

| | |
|--|---------------|
| Common Stock, par value \$0.50 per share | NYSE American |
|--|---------------|

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

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

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

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

Emerging growth company

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

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting common stock held by non-affiliates of the registrant, computed by reference to the closing price of a share of common stock on March 31, 2018 (the last business day of the registrant's most recently completed second fiscal quarter) was \$7,778,000.

As of December 3, 2018 there were 8,277,160 shares of common stock outstanding.

Documents Incorporated by Reference

1. Proxy statement to be forwarded to stockholders on or about January 17, 2019 is incorporated by reference in Part III hereof.

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GLOSSARY OF TERMS

Defined below are certain terms used in this Form 10-K:

| Terms | Definitions |
|--|---|
| ASC | - Accounting Standards Codification |
| ASU | - Accounting Standards Update |
| Barnwell | - Barnwell Industries, Inc. and all majority-owned subsidiaries |
| Barnwell of Canada | - Barnwell of Canada, Limited |
| Bbl(s) | - stock tank barrel(s) of oil equivalent to 42 U.S. gallons |
| Boe | - barrel of oil equivalent at the rate of 5.8 Mcf per Bbl of oil or NGL |
| FASB | - Financial Accounting Standards Board |
| GAAP | - U.S. generally accepted accounting principles |
| Gross | Total number of acres or wells in which Barnwell owns an interest; includes interests owned of record by Barnwell and, in addition, the portion(s) owned by others; for example, a 50% interest in a 320 acre lease represents 320 gross acres and a 50% interest in a well represents 1 gross well. In the context of production volumes, gross represents amounts before deduction of the royalty share due others. |
| InSite | - InSite Petroleum Consultants Ltd. |
| Kaupulehu 2007 | - Kaupulehu 2007, LLLP |
| KD I | - KD Acquisition, LLLP, formerly known as WB KD Acquisition, LLC (“WB”) |
| KD II | - KD Acquisition II, LLLP, formerly known as WB KD Acquisition II, LLC (“WBKD”) |
| KD Kona | - KD Kona 2013 LLLP |
| KKM Makai | - KKM Makai, LLLP |
| Kukio Resort Land Development Partnerships | The following partnerships in which Barnwell owns a 19.6% non-controlling interest: - KD Kukio Resorts, LLLP (“KD Kukio Resorts”) - KD Maniniowali, LLLP (“KD Maniniowali”) - KD Kaupulehu, LLLP, which consists of KD I and KD II (“KDK”) |
| MBbls | - thousands of barrels of oil |
| Mcf | 1,000 cubic feet of natural gas at 14.65 pounds per square inch absolute and 60 degrees Fahrenheit |
| Mcfe | - Mcf equivalent at the rate of 1 Bbl = 5.8 Mcf |
| MMcf | - millions of cubic feet of natural gas |
| Net | Barnwell’s aggregate interest in the total acres or wells; for example, a 50% interest in a 320 acre lease represents 160 net acres and a 50% interest in a well represents 0.5 net well. In the context of production volumes, net represents amounts after deduction of the royalty share due others. |
| NGL(s) | - natural gas liquid(s) |
| Octavian Oil | - Octavian Oil, Ltd. |
| OPEC | - Organization of the Petroleum Exporting Countries |
| SEC | - United States Securities and Exchange Commission |
| VIE | - Variable interest entity |
| Water Resources | - Water Resources International, Inc. |

PART I

CAUTIONARY STATEMENT RELEVANT TO FORWARD-LOOKING INFORMATION
FOR THE PURPOSE OF "SAFE HARBOR" PROVISIONS OF THE
PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This Form 10-K, and the documents incorporated herein by reference, contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 ("PSLRA"). A forward-looking statement is one which is based on current expectations of future events or conditions and does not relate to historical or current facts. These statements include various estimates, forecasts, projections of Barnwell Industries, Inc.'s (referred to herein together with its majority-owned subsidiaries as "Barnwell," "we," "our," "us" or the "Company") future performance, statements of Barnwell's plans and objectives and other similar statements. All such statements we make are forward-looking statements made under the safe harbor of the PSLRA, except to the extent such statements relate to the operations of a partnership or limited liability company. Forward-looking statements include phrases such as "expects," "anticipates," "intends," "plans," "believes," "predicts," "estimates," "assumes," "projects," "may," "will," "will be," and similar expressions. Although Barnwell believes that its current expectations are based on reasonable assumptions, it cannot assure that the expectations contained in such forward-looking statements will be achieved. Forward-looking statements involve risks, uncertainties and assumptions which could cause actual results to differ materially from those contained in such statements. Investors should not place undue reliance on these forward-looking statements, as they speak only as of the date of filing of this Form 10-K, and Barnwell expressly disclaims any obligation or undertaking to publicly release any updates or revisions to any forward-looking statements contained herein.

Among the important factors that could cause actual results to differ materially from those in the forward-looking statements are domestic and international general economic conditions, such as recessionary trends and inflation; domestic and international political, legislative, economic, regulatory and legal actions, including changes in the policies of the Organization of the Petroleum Exporting Countries or other developments involving or affecting oil and natural gas producing countries; military conflict, embargoes, internal instability or actions or reactions of the governments of the United States and/or Canada in anticipation of or in response to such developments; interest costs, restrictions on production, restrictions on imports and exports in both the United States and Canada, the maintenance of specified reserves, tax increases and retroactive tax claims, royalty increases, expropriation of property, cancellation of contract rights, environmental protection controls, environmental compliance requirements and laws pertaining to workers' health and safety; the condition of Hawaii's real estate market, including the level of real estate activity and prices, the demand for new housing and second homes on the island of Hawaii, the rate of increase in the cost of building materials and labor, the introduction of building code modifications, changes to zoning laws, the condition of Hawaii's tourism industry and the level of confidence in Hawaii's economy; levels of land development activity in Hawaii; levels of demand for water well drilling and pump installation in Hawaii; the potential liability resulting from pending or future litigation; the Company's acquisition or disposition of assets; the effects of changed accounting rules under GAAP promulgated by rule-setting bodies; and the factors set forth under the heading "Risk Factors" in this Form 10-K, in other portions of this Form 10-K, in the Notes to Consolidated Financial Statements, and in other documents filed by Barnwell with the SEC. In addition, unpredictable or unknown factors not discussed in this report could also cause actual results to materially and adversely differ from those discussed in the forward-looking statements.

Unless otherwise indicated, all references to "dollars" in this Form 10-K are to United States dollars.

ITEM 1. BUSINESS

Overview

Barnwell was incorporated in Delaware in 1956 and fiscal 2018 represented Barnwell's 62nd year of operations. Barnwell operates in the following three principal business segments:

Oil and Natural Gas Segment - Barnwell engages in oil and natural gas development, production, acquisitions and sales in Canada.

Land Investment Segment - Barnwell invests in land interests in Hawaii.

Contract Drilling Segment - Barnwell provides well drilling services and water pumping system installation and repairs in Hawaii.

Oil and Natural Gas Segment

Overview

Barnwell acquires and develops crude oil and natural gas assets in the province of Alberta, Canada via two corporate entities, Barnwell of Canada and Octavian Oil. Barnwell of Canada is a U.S. incorporated company that has been active in Canada for over 50 years, primarily as a non-operator participating in exploration projects operated by others. Octavian Oil is a Canadian company, set up in 2016, to achieve long term growth through the acquisition of crude oil reserves and development of these reserves through horizontal well drilling and completion techniques.

Strategy

Since 2013, Barnwell has transformed its Canadian oil and natural gas segment operation from a 90% non-operated production base, most of which was from its 40-year-old Dunvegan gas field, to a more operated production base. In 2013, only about 20% of Barnwell's production was conventional oil, and capital investments were being directed towards heavy oil drilling projects in the province of Saskatchewan. In 2014 Barnwell sold all of its heavy oil properties, and in 2015 Barnwell sold its Dunvegan gas property. These sales allowed Barnwell to minimize the effects of the subsequent commodity price collapse in 2015 and downstream transportation issues. Barnwell of Canada retained its core conventional oil assets and, since 2015, has acquired various conventional oil interests in Alberta from other companies to consolidate interests in these core properties. In February 2018, Barnwell sold its interest in its oil and natural gas property Red Earth. In August 2018, Barnwell closed a significant acquisition of conventional oil assets and infrastructure in the Twining area of Alberta. At September 30, 2018, Barnwell's reserves were approximately 80% operated and 65% conventional oil and natural gas liquids, as compared to 55% operated and 44% conventional oil and natural gas liquids at September 30, 2017.

Operations

All acquisition and developmental activities, as well as all field operations and regulatory compliance, are the direct responsibility of Barnwell of Canada's President and Chief Operating Officer and Octavian Oil's President. Strategic direction and approvals for major expenditures are secured from Barnwell's senior executive management.

Our oil and natural gas segment revenues, profitability, and future rate of growth are dependent on oil and natural gas prices and obtaining external financing or sufficient land investment cash flows to fund the development of our proved undeveloped reserves. The industry has experienced a prolonged period of low oil and natural gas prices that has negatively impacted our operating results, cash flows and liquidity. Credit and capital markets for oil and natural gas companies have been negatively affected as well, resulting in a decline in sources of financing as compared to previous years. By divesting significant oil and natural gas assets prior to the 2015 decline in commodity prices, Barnwell was able to repay all of its debt, use funds for general corporate purposes, and fund its acquisition investments.

Natural gas prices are typically higher in the winter than at other times due to increased heating demand. Oil prices are also subject to seasonal fluctuations, but to a lesser degree. Oil and natural gas unit sales are based on the quantity produced from the properties by the properties' operator. Prices received in Canada, especially natural gas and heavy oil have also been negatively impacted by the lack of export pipeline capacity.

On August 28, 2018, Barnwell completed the acquisition of interests in oil and natural gas properties located in the Twining area of Alberta, Canada, from an independent third party. The purchase price per the agreement was \$10,362,000, which took into account customary purchase price adjustments to reflect the economic activity from the effective date of July 1, 2018 to the closing date. The final determination of the customary adjustments to the purchase price has not yet been made, however it is not expected to result in a material adjustment. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition. This acquisition represents a significant step in Barnwell's long-term strategy to transform its Canadian operations to having almost exclusively conventional light and medium oil assets. This was a strategic purchase by the Company of what is now its largest oil property. The Twining assets, which Barnwell operates, are expected to provide Barnwell with relatively low decline oil production, significant upside from a large volume of oil-in-place, operated infrastructure, and an advantageous geographic location in Central Alberta. Since closing, Barnwell's net production from Twining for the two months of September and October 2018 has remained steady at an average of approximately 450 Boe per day.

Our proved undeveloped reserves, which are primarily attributable to Twining, are estimated to be converted to proved developed reserves through future capital expenditures by Barnwell of approximately \$14,000,000 for the development of 12 gross (8.75 net) wells over the next five years.

Preparation of Reserve Estimates

Barnwell's reserves are estimated by our independent petroleum reserve engineers, InSite, in accordance with generally accepted petroleum engineering and evaluation principles and techniques and rules and regulations of the SEC. All information with respect to the Company's reserves in this Form 10-K is derived from the report of InSite. A copy of the report issued by InSite is filed with this Form 10-K as Exhibit 99.1.

The preparation of data used by the independent petroleum reserve engineers to compile our oil and natural gas reserve estimates is completed in accordance with various internal control procedures which include verification of data input into reserves evaluation software, reconciliations and reviews of data provided to the independent petroleum reserve engineers to ensure completeness, and management review controls, including an independent internal review of the final reserve report for completeness and accuracy.

Barnwell has a Reserves Committee consisting of four independent directors, the Company's Chief Executive Officer and President, and the Company's Executive Vice President and Chief Financial Officer. The Reserves Committee was established to ensure the independence of the Company's petroleum reserve engineers. The Reserves Committee is responsible for reviewing the annual reserve evaluation report prepared by the independent petroleum reserve engineering firm and ensuring that the reserves are reported fairly in a manner consistent with applicable standards. The Reserves Committee meets annually to discuss reserve issues and policies and to meet with Company personnel and the independent petroleum reserve engineers.

Barnwell of Canada's President and Chief Operating Officer has primary responsibility for overseeing the preparation of the Company's reserve estimates by our independent petroleum reserve engineers. He is a professional engineer with over 35 years of relevant experience in all facets of the oil and natural gas industry in Canada and is a member of the Association of Professional Engineers and Geoscientists of Alberta.

Reserves

The amounts set forth in the following table, based on InSite's evaluation of our reserves, summarize our estimated proved reserves of oil (including natural gas liquids) and natural gas as of September 30, 2018 on all properties in which Barnwell has an interest. All of our oil and natural gas reserves are located in Canada and are based on constant dollars. The Company emphasizes that reserve estimates are inherently imprecise and that estimates of new discoveries and undeveloped locations are more imprecise than estimates of established proved producing oil and natural gas properties. Accordingly, these estimates are expected to change as future information becomes available. Proved oil and natural gas reserves are the estimated quantities of oil and natural gas that geological and engineering data demonstrate, with reasonable certainty, to be recoverable in future years from known reservoirs under economic and operating conditions (i.e., prices and costs) existing at the time the estimate is made. Proved developed oil and natural gas reserves are proved reserves that can be expected to be recovered through existing wells and equipment in place and under operating methods being utilized at the time the estimates were made. No estimates of total proved net oil or natural gas reserves have been filed with, or included in reports to, any federal authority or agency, other than the SEC, since October 1, 2017.

| | As of September 30, 2018 | | |
|---|--|--|---------------------------------|
| | Estimated Proved Developed Reserves | Estimated Proved Undeveloped Reserves | Estimated Proved Reserves |
| Oil, including natural gas liquids (Bbls) | 693,000 | 897,000 | 1,590,000 |
| Natural gas (Mcf) | 2,399,000 | 2,656,000 | 5,055,000 |
| Total (Boe) | 1,107,000 | 1,355,000 | 2,462,000 |

During fiscal 2018, Barnwell's total net proved developed reserves of oil and natural gas liquids increased by 280,000 Bbls (68%) and total net proved developed reserves of natural gas decreased by 606,000 Mcf (20%), for a combined increase of 176,000 Boe (19%). The increase in oil and natural gas liquids reserves was primarily the result of the Twining asset acquisition. The decrease in gas reserves was due to lower rolling average historical first-day-of-the-month natural gas prices used in the determination of reserve volumes at September 30, 2018, partially offset by the Twining asset acquisition.

Proved undeveloped reserves, which primarily relate to our acquisition of Twining in August 2018, totaled 897,000 Bbls of oil and natural gas liquids and 2,656,000 Mcf of gas as of September 30, 2018. Our

proved undeveloped reserves are planned for development within five years and are based on approximately \$14,000,000 of future estimated capital expenditures to develop 12 gross (8.75 net) wells. The ability of Barnwell to convert the undeveloped reserves to developed reserves will be heavily influenced by the cash flows generated by the oil and natural gas segment, the results of such drilling, and the ability of the Company to raise sufficient funds that may be needed for any potential future capital financing. There were no proved undeveloped reserves at September 30, 2017.

The following table sets forth Barnwell's oil and natural gas net reserves at September 30, 2018, by property name, based on information prepared by InSite, as well as net production and net revenues by property name for the year ended September 30, 2018. The reserve data in this table is based on constant dollars where reserve estimates are based on sales prices, costs and statutory tax rates in existence at September 30, 2018, the date of the projection.

| Property Name | As of September 30, 2018 | | | | For the year ended September 30, 2018 | | | |
|------------------|--------------------------|-------------|-------------------|-------------|---------------------------------------|-----------|--------------|-----------|
| | Net Proved | | Total Net | | Net Production | | Net Revenues | |
| | Producing | | Proved | | | | | |
| | Reserves | Reserves | Reserves | Reserves | Oil & NGL | Gas | Oil & NGL | Gas |
| | Oil & NGL (MMcfs) | Gas (MMcfs) | Oil & NGL (MMcfs) | Gas (MMcfs) | Oil & NGL (Bbls) | Gas (Mcf) | Oil & NGL | Gas |
| Bonanza/Balsam | 89 | 65 | 89 | 65 | 13,000 | 14,000 | \$675,000 | \$14,000 |
| Hillsdown | 11 | 65 | 11 | 65 | 3,000 | 40,000 | 176,000 | 56,000 |
| Progress | 28 | 450 | 45 | 669 | 3,000 | 88,000 | 179,000 | 128,000 |
| Spirit River | 45 | 36 | 91 | 179 | 4,000 | 6,000 | 211,000 | 8,000 |
| Twining | 438 | 1,471 | 1,294 | 4,052 | 8,000 | 30,000 | 432,000 | 31,000 |
| Wood River | 55 | 20 | 55 | 20 | 19,000 | 6,000 | 950,000 | 8,000 |
| Other properties | 5 | 4 | 5 | 5 | 17,000 | 144,000 | 739,000 | 99,000 |
| Total | 671 | 2,111 | 1,590 | 5,055 | 67,000 | 328,000 | \$3,362,000 | \$344,000 |

Proved reserves that are attributable to existing producing wells are primarily determined using decline curve analysis and rate transient analysis, which incorporates the principles of hydrocarbon flow. Proved reserves attributable to producing wells with limited production history and for undeveloped locations are estimated using performance from analogous wells in the surrounding area and geologic data to assess the reservoir continuity. Technologies relied on to establish reasonable certainty of economic producibility include electrical logs, radioactivity logs, core analyses, geologic maps and available production data, seismic data and well test data.

Standardized Measure of Discounted Future Net Cash Flows

The following table sets forth Barnwell's "Estimated Future Net Revenues" from total proved oil, natural gas and natural gas liquids reserves and the present value of Barnwell's "Estimated Future Net Revenues" (discounted at 10%) as of September 30, 2018. Estimated future net revenues for total proved reserves are net of estimated future expenditures of developing and producing the proved reserves, and assume the continuation of existing economic conditions. Net revenues have been calculated using the average first-day-of-the-month price during the 12-month period ending as of the balance sheet date and current costs, after deducting all royalties, operating costs, future estimated capital expenditures (including abandonment

costs), and income taxes. The amounts below include future cash flows from reserves that are currently proved undeveloped reserves and do not deduct general and administrative or interest expenses.

Year ending September 30,

| | |
|--|--------------|
| 2019 | \$2,567,000 |
| 2020 | 2,482,000 |
| 2021 | 2,152,000 |
| Thereafter | 15,627,000 |
| Undiscounted future net cash flows, after income taxes | \$22,828,000 |

Standardized measure of discounted future net cash flows \$13,836,000 *

* This amount does not purport to represent, nor should it be interpreted as, the fair value of Barnwell's oil and natural gas reserves. An estimate of fair value would also consider, among other items, the value of Barnwell's undeveloped land position, the recovery of reserves not presently classified as proved, anticipated future changes in oil and natural gas prices (these amounts were based on a natural gas price of \$1.24 per Mcf and an oil price of \$51.43 per Bbl) and costs, and a discount factor more representative of the time value of money and the risks inherent in reserve estimates.

Oil and Natural Gas Production

The following table summarizes (a) Barnwell's net production for the last three fiscal years, based on sales of natural gas, oil and natural gas liquids, from all wells in which Barnwell has or had an interest, and (b) the average sales prices and average production costs for such production during the same periods. Production amounts reported are net of royalties. All of Barnwell's net production in fiscal 2018, 2017 and 2016 was derived in Alberta, Canada. For a discussion regarding our total annual production volumes, average sales prices, and related production costs, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations." The 2018 volumes reflect volumes from the Twining acquisition only from the closing date of August 28, 2018.

| | Year ended September 30, | | |
|---|--------------------------|---------|---------|
| | 2018 | 2017 | 2016 |
| Annual net production: | | | |
| Natural gas (Mcf) | 328,000 | 378,000 | 476,000 |
| Oil (Bbls) | 62,000 | 81,000 | 78,000 |
| Natural gas liquids (Bbls) | 5,000 | 5,000 | 6,000 |
| Total (Boe) | 123,000 | 151,000 | 166,000 |
| Total (Mcfe) | 717,000 | 877,000 | 965,000 |
| Annual average sales price per unit of production: | | | |
| Mcf of natural gas* | \$1.12 | \$1.98 | \$1.27 |
| Bbl of oil** | \$51.53 | \$40.72 | \$32.42 |
| Bbl of natural gas liquids** | \$43.02 | \$30.19 | \$23.82 |
| Annual average production cost per Boe produced*** | \$21.08 | \$19.03 | \$18.58 |
| Annual average production cost per Mcfe produced*** | \$3.63 | \$3.28 | \$3.20 |

* Calculated on revenues net of pipeline charges before royalty expense divided by gross production.

** Calculated on revenues before royalty expense divided by gross production.

*** Calculated on production costs, excluding natural gas pipeline charges, divided by the combined total production of natural gas liquids, oil and natural gas.

Capital Expenditures and Acquisitions

Barnwell invested \$10,890,000 in oil and natural gas properties during fiscal 2018, including accrued capital expenditures and acquisitions of oil and natural gas properties and excluding additions and revisions to estimated asset retirement obligations, of which \$10,362,000 was for the acquisition of oil and natural gas working interests in an oil and natural gas property in the Twining area. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition.

Well Drilling Activities

In fiscal 2018, we participated in a horizontal development well that was drilled in the Balsam area, in which we have a 22% working interest. This well was successful and started producing in July 2018. During the first 90 days of production the well has averaged about 180 barrels of oil per day, of which about 40 barrels of oil per day are net to Barnwell. This is estimated to result in a less than one-year payout and it is expected that an additional offset well will be drilled in 2019.

One gross (0.1 net) development well was drilled in fiscal 2017 and no wells were drilled in fiscal year 2016.

Producing Wells

As of September 30, 2018, Barnwell had interests in 73 gross (42.1 net) producing wells, of which 65 gross (39.4 net) were oil wells and 8 gross (2.7 net) were natural gas wells. All wells were in Alberta, Canada.

Developed Acreage and Undeveloped Acreage

The following table sets forth the gross and net acres of both developed and undeveloped oil and natural gas leases which Barnwell held as of September 30, 2018.

| Location | Developed Acreage* | | Undeveloped Acreage* | | Total | |
|----------|-----------------------|--------|-------------------------|--------|---------|--------|
| | Gross | Net | Gross | Net | Gross | Net |
| Canada | 182,439 | 40,728 | 88,229 | 17,322 | 270,668 | 58,050 |

* “Developed Acreage” includes the acres covered by leases upon which there are one or more producing wells. “Undeveloped Acreage” includes acres covered by leases upon which there are no producing wells and which are maintained by the payment of delay rentals or the commencement of drilling thereon.

Seventy-five percent of Barnwell’s undeveloped acreage is not subject to expiration at September 30, 2018.

Twenty-five percent of Barnwell’s leasehold interests in undeveloped acreage is subject to expiration and expire over the next five fiscal years, if not developed, as follows: 12% expire during fiscal 2019; 4% expire during fiscal 2020; 3% expire during fiscal 2021; 2% expire during fiscal 2022; and 4% expire in fiscal 2023. There can be no assurance that Barnwell will be successful in renewing its leasehold interests in the event of expiration.

Much of the undeveloped acreage is at non-operated properties over which we do not have control, and the value of such acreage is not estimated to be significant at current commodity prices. Barnwell’s undeveloped acreage includes a significant concentration in the Thornbury (5,919 net acres) and Twining (2,904 net acres) areas of Alberta, Canada.

Marketing of Oil and Natural Gas

Barnwell sells its oil, natural gas, and natural gas liquids production, including under short-term contracts between itself and two main oil marketers, one natural gas purchaser, and one natural gas liquids marketer. The prices received are freely negotiated between buyers and sellers and are determined from transparent posted prices adjusted for quality and transportation differentials. In fiscal 2018, over 80% of Barnwell's oil and natural gas revenues were from products sold at spot prices. Barnwell does not use derivative instruments to manage price risk.

In fiscal 2018 and 2017, Barnwell took most of its oil, natural gas liquids and natural gas "in kind" where Barnwell markets the products instead of having the operator of a producing property market the products on Barnwell's behalf. We sell oil, natural gas and natural gas liquids to a variety of energy marketing companies. Because our products are commodities for which there are numerous marketers, we are not dependent upon one purchaser or a small group of purchasers. Accordingly, the loss of any single purchaser would not materially affect our revenues.

Governmental Regulation

The jurisdictions in which the oil and natural gas properties of Barnwell are located have regulatory provisions relating to permits for the drilling of wells, the spacing of wells, the prevention of oil and natural gas waste, allowable rates of production, environmental protection, and other matters. The amount of oil and natural gas produced is subject to control by regulatory agencies in each province that periodically assign allowable rates of production. The province of Alberta and Government of Canada also monitor and regulate the volume of natural gas that may be removed from the province and the conditions of removal.

There is no current government regulation of the price that may be charged on the sale of Canadian oil or natural gas production. Canadian natural gas production destined for export is priced by market forces subject to export contracts meeting certain criteria prescribed by Canada's National Energy Board and the Government of Canada.

All of Barnwell's gross revenues were derived from properties located within Alberta, which charges oil and natural gas producers a royalty for production within the province. Provincial royalties are calculated as a percentage of revenue and vary depending on production volumes, selling prices and the date of discovery. Barnwell also pays gross overriding royalties and leasehold royalties on a portion of its oil and natural gas sales to parties other than the province of Alberta.

In January 2016, the Alberta Royalty Panel recommended a new modernized Alberta royalty framework which applies to wells drilled on or after January 1, 2017. The previous royalty framework will continue to apply to wells drilled prior to January 1, 2017 for a period of ten years, after which they will fall under the current royalty framework. Under the current royalty framework the same royalty calculation applies to both oil and natural gas wells, whereas the previous royalty framework had different royalties applicable to each category, and royalties are determined on a revenue minus cost basis where producers pay a flat royalty rate of 5% of gross revenues until a well reaches payout after which an increased post-payout royalty applies. Post payout royalties vary with commodity prices and are adjusted down for cost increases as wells age.

In fiscal 2018 and 2017, 66% and 63%, respectively, of royalties related to Alberta government charges, and 34% and 37%, respectively, of royalties related to freehold, override and other charges which are not directly affected by the Alberta royalty framework.

In fiscal 2018, the weighted-average royalty rate paid on all of Barnwell's natural gas was 6%, and the weighted-average royalty rate paid on oil was 20%.

Barnwell's oil and natural gas segment is currently subject to the provisions of the Alberta Energy Regulator's ("AER") Licensee Liability Rating ("LLR") program. Under the LLR program the AER calculates a Liability Management Ratio ("LMR") for a company based on the ratio of the company's deemed assets over its deemed liabilities relating to wells and facilities for which the company is the licensed operator. The LMR assessment is designed to assess a company's ability to address its suspension, abandonment, remediation, and reclamation liabilities. The value of the deemed assets is based on each well's most recent twelve months of production and a rolling three-year average industry netback as determined by the AER annually. The AER has not recalculated the three-year average industry netback since March 2015 making the current value a premium to what most producers have been realizing. A recalculation of the value using current industry netback values would likely have a negative impact on our LMR. Companies with an LMR less than 1.0 are required to deposit funds with the AER to cover future deemed liabilities. At September 30, 2018, the Company had sufficient deemed asset value that no security deposit was due.

The AER reviews and approves the transfers of all well, facility and pipeline license from one operator to another, and requires purchasers of AER licensed oil and natural gas assets to have an LMR of 2.0 or higher immediately following the transfer of a license. This review process typically takes 30 to 60 days from the date of application. Application was made on August 28, 2018 for Barnwell of Canada to accept the transfer of the various licenses relating to the Twining acquisition. On October 2, 2018, the AER approved the transfer of all of the related licenses. As of the November 3, 2018 LMR report, we had an LMR of 2.09.

Competition

Barnwell competes in the sale of oil and natural gas on the basis of price and on the ability to deliver products. The oil and natural gas industry is intensely competitive in all phases, including the acquisition and development of new production and reserves and the acquisition of equipment and labor necessary to conduct drilling activities. The competition comes from numerous major oil companies as well as numerous other independent operators. There is also competition between the oil and natural gas industry and other industries in supplying the energy and fuel requirements of industrial, commercial and individual consumers. Barnwell is a minor participant in the industry and competes in its oil and natural gas activities with many other companies having far greater financial, technical and other resources.

Land Investment Segment

Overview

Barnwell owns a 77.6% interest in Kaupulehu Developments, a Hawaii general partnership that has the right to receive payments from KD I and KD II resulting from the sale of lots and/or residential units by KD I and KD II within the approximately 870 acres of the Kaupulehu Lot 4A area in two increments ("Increment I" and "Increment II"), located approximately six miles north of the Kona International Airport in the North Kona District of the island of Hawaii. Kaupulehu Developments also holds an interest in approximately 1,000 acres of vacant leasehold land zoned conservation located adjacent to Lot 4A under a

lease that terminates in December 2025, which currently has no development potential without both a development agreement with the lessor and zoning reclassification.

Barnwell, through two limited liability limited partnerships, KD Kona and KKM Makai, holds a non-controlling ownership interest in the Kukio Resort land development partnerships which is comprised of KD Kukio Resorts, KD Maniniowali, and KDK. These entities, collectively referred to hereinafter as the “Kukio Resort Land Development Partnerships,” own certain real estate and development rights interests in the Kukio, Maniniowali and Kaupulehu portions of Kukio Resort, a private residential community on the Kona coast of the island of Hawaii, as well as Kukio Resort’s real estate sales office operations. KDK holds interests in KD I and KD II. KD I is the developer of Kaupulehu Lot 4A Increment I, and KD II is the developer of Kaupulehu Lot 4A increment II. Barnwell's ownership interests in the Kukio Resort Land Development Partnerships is accounted for using the equity method of accounting.

Operations

In the 1980s, Kaupulehu Developments obtained the state and county zoning changes necessary to permit development of the Four Seasons Resort Hualalai at Historic Ka`upulehu and Hualalai Golf Club, which opened in 1996, a second golf course, and single-family and multi-family residential units. These projects were developed by an unaffiliated entity on leasehold land acquired from Kaupulehu Developments.

In the 1990s and 2000s, Kaupulehu Developments obtained the state and county zoning changes necessary to permit development of single-family and multi-family residential units, a golf course and a limited commercial area on approximately 870 leasehold acres, known as Lot 4A, zoned for resort/residential development, located adjacent to and north of the Four Seasons Resort Hualalai at Historic Ka`upulehu. In 2004 and 2006, Kaupulehu Developments sold its leasehold interest in Kaupulehu Lot 4A to KD I's and KD II's predecessors in interest, which was prior to Barnwell’s affiliation with KD I and KD II which commenced on November 27, 2013, the acquisition date of our ownership interest in the Kukio Resort Land Development Partnerships.

Increment I is an area of 80 single-family lots, of which 20 lots remain to be sold, and a beach club on the portion of the property bordering the Pacific Ocean. The purchasers of the 80 single-family lots will have the right to apply for membership in the Kuki`o Golf and Beach Club, which is located adjacent to and south of the Four Seasons Resort Hualalai at Historic Ka`upulehu. Increment II is the remaining portion of the approximately 870-acre property and is zoned for single-family and multi-family residential units and a golf course and clubhouse. Two residential lots of approximately two to three acres in size fronting the ocean were developed within Increment II and sold by KD II, and the remaining acreage within Increment II is not yet under development. It is uncertain when or if KD II will develop the other areas of Increment II, and there is no assurance with regards to the amounts of future sales from Increments I and II.

Kaupulehu Developments is entitled to receive payments from KD I based on the following percentages of the gross receipts from KD I’s sales of single-family residential lots in Increment I: 10% of such aggregate gross proceeds greater than \$100,000,000 up to \$300,000,000; and 14% of such aggregate gross proceeds in excess of \$300,000,000. In fiscal 2018, three single-family lots in Increment I were sold bringing the total amount of gross proceeds from single-family lot sales through September 30, 2018 to \$215,000,000.

Kaupulehu Developments is entitled to receive payments from KD II based on a percentage of the gross receipts from KD II’s sales of residential lots or units in Increment II ranging from 8% to 10% of the price of improved or unimproved lots or 2.60% to 3.25% of the price of units constructed on a lot, to be

determined in the future depending upon a number of variables, including whether the lots are sold prior to improvement. Kaupulehu Developments is also entitled to receive 50% of distributions otherwise payable from KD II to its members up to \$8,000,000, of which \$3,500,000 has been received to date, after the members of KD II have received distributions equal to the original basis of capital invested in the project.

In fiscal 2018, the Kukio Resort Land Development Partnerships made cash distributions to its partners of which Barnwell received \$735,000, after distributing \$89,000 to minority interests.

Competition

Barnwell's land investment segment is subject to intense competition in all phases of its operations including the acquisition of new properties, the securing of approvals necessary for land rezoning, and the search for potential buyers of property interests presently owned. The competition comes from numerous independent land development companies and other industries involved in land investment activities. The principal factors affecting competition are the location of the project and pricing. Barnwell is a minor participant in the land development industry and competes in its land investment activities with many other entities having far greater financial and other resources.

Contract Drilling Segment

Overview

Barnwell's wholly-owned subsidiary, Water Resources, drills water and water monitoring wells of varying depths in Hawaii, installs and repairs water pumping systems, and is the distributor for Floway pumps and equipment in the state of Hawaii.

Operations

Water Resources owns and operates four water well drilling rigs, two pump rigs and other ancillary drilling and pump equipment. Additionally, Water Resources leases a three-quarter of an acre maintenance facility in Honolulu, Hawaii, a one acre maintenance and storage facility with 2,800 square feet of interior space in Kawaihae, Hawaii, and a one-half acre equipment storage yard in Waimea, Hawaii, and maintains an inventory of drilling materials and pump supplies.

Water Resources currently operates in Hawaii and is not subject to seasonal fluctuations. The demand for Water Resources' services is primarily dependent upon land development activities in Hawaii. Water Resources markets its services to land developers and government agencies, and identifies potential contracts through public notices, its officers' involvement in the community and referrals. Contracts are usually fixed price per lineal foot drilled and are negotiated with private entities or obtained through competitive bidding with private entities or local, state and federal agencies. Contract revenues are not dependent upon the discovery of water or other similar targets, and contracts are not subject to renegotiation of profits or termination at the election of the governmental entities involved. Contracts provide for arbitration in the event of disputes.

In fiscal 2018, Water Resources started two well drilling and four pump installation and repair contracts and completed one well drilling and six pump installation and repair contracts. The drilling contract and two of the pump installation and repair contracts completed were started in the prior year, and the other completed contracts were started in the current year. Sixty-nine percent of well drilling and pump installation and repair

jobs, representing 58% of total contract drilling revenues in fiscal 2018, have been pursuant to government contracts.

At September 30, 2018, there was a backlog of four well drilling and seven pump installation and repair contracts, of which three well drilling and five pump installation and repair contracts were in progress as of September 30, 2018.

The approximate dollar amount of Water Resources' backlog of firm well drilling and pump installation and repair contracts at December 1, 2018 and 2017 was as follows:

| | December 1, | |
|------------------------------|-------------|-------------|
| | 2018 | 2017 |
| Well drilling | \$4,600,000 | \$4,600,000 |
| Pump installation and repair | 1,200,000 | 1,600,000 |
| | \$5,800,000 | \$6,200,000 |

Of the contracts in backlog at December 1, 2018, \$2,900,000 is expected to be recognized in fiscal 2019 with the remainder to be recognized in the following fiscal year.

Competition

Water Resources competes with other drilling contractors in Hawaii, some of which use drill rigs similar to Water Resources'. These competitors are also capable of installing and repairing vertical turbine and submersible water pumping systems in Hawaii. These contractors compete actively with Water Resources for government and private contracts. Pricing is Water Resources' major method of competition; reliability of service is also a significant factor.

Competitive pressures are expected to remain high, thus there is no assurance that the quantity or values of available or awarded jobs which occurred in fiscal 2018 will continue.

Financial Information About Industry Segments and Geographic Areas

Note 11 in the "Notes to Consolidated Financial Statements" in Item 8 contains information on our segments and geographic areas.

Employees

At December 1, 2018, Barnwell employed 31 individuals; 30 on a full time basis and 1 on a part time basis.

Environmental Costs

Barnwell is subject to extensive environmental laws and regulations. U.S. Federal and state and Canadian Federal and provincial governmental agencies issue rules and regulations and enforce laws to protect the environment which are often difficult and costly to comply with and which carry substantial penalties for failure to comply, particularly in regard to the discharge of materials into the environment. These laws, which are constantly changing, regulate the discharge of materials into the environment and maintenance of surface conditions and may require Barnwell to remove or mitigate the environmental effects of the disposal or release of petroleum or chemical substances at various sites where it has a working interest.

For further information on environmental remediation, see the Contingencies section included in Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the notes to our consolidated financial statements included in Item 8, “Financial Statements and Supplementary Data.”

Available Information

We are required to file annual, quarterly and current reports and other information with the SEC. These filings are not deemed to be incorporated by reference in this report. You may read and copy any document filed by us at the Public Reference Room of the SEC, 100 F Street, N.E., Washington, D.C. 20549, on official business days during the hours of 10 a.m. to 3 p.m. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our filings with the SEC are also available to the public through the SEC’s website at www.sec.gov. Furthermore, we maintain an internet site at www.brninc.com. We make available on our internet website free of charge our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports as soon as practicable after we electronically file such reports with, or furnish them to, the SEC. The contents of these websites are not incorporated into this filing. Furthermore, the Company’s references to URLs for these websites are intended to be textual references only.

ITEM 1A. RISK FACTORS

The business of Barnwell and its subsidiaries face numerous risks, including those set forth below or those described elsewhere in this Form 10-K or in Barnwell's other filings with the SEC. The risks described below are not the only risks that Barnwell faces. If any of the following risk factors should occur, our profitability, financial condition or liquidity could be materially negatively impacted.

Entity-Wide Risks

The Company faces issues that could impair our ability to continue as a going concern in the future.

The Twining reserves acquired consist of proved producing reserves as well as a significant amount of proved reserves that are undeveloped. Our proved undeveloped reserves are estimated to require roughly \$14,000,000 in future oil and natural gas capital expenditures to develop within the next five years. Cash flows generated by developed Twining reserves are estimated by our independent reserve engineering firm to be sufficient to fund such capital expenditures. However, as the independent reserve engineering firm's estimates do not consider items such as our ongoing general and administrative expenses, it is possible that we will need to obtain a significant amount of new financing in the form of debt or equity in order to develop the reserves to the level estimated by our independent reserve engineers.

Our ability to sustain our business in the future will depend on sufficient oil and natural gas operating cash flows, which are highly sensitive to potentially volatile oil and natural gas prices, sufficient future land investment segment proceeds and distributions from the Kukio Resort Land Development Partnerships, the timing of which are both highly uncertain and not within Barnwell's control, and our ability to fund our needed oil and natural gas capital expenditures and the level of success of such capital expenditures, as well as our ability to fund oil and natural gas asset retirement obligations and ongoing operating and general and administrative expenses.

Management believes our current cash balances, working capital and future cash inflows from operations will be sufficient to fund its estimated cash outflows for the next 12 months. However, if oil and natural gas and land investment cash inflows and any needed new financing sources are not sufficient to sustain our longer term business plans, which are currently based upon assumptions and estimates that may not materialize, or if unforeseen circumstances arise that impair our ability to sustain or grow our business, the Company may need to consider further sales of our assets or alternative strategies, or we may be forced to wind down our operations, either through liquidation or bankruptcy, and we may not be able to continue as a going concern in 2020 and beyond.

A small number of stockholders, including our CEO, own a significant amount of our common stock and have influence over our business regardless of the opposition of other stockholders.

As of September 30, 2018, the CEO, who is a member of the Board of Directors, and two others hold approximately 36% of our outstanding common stock. The interests of one or more of these stockholders may not always coincide with the interests of other stockholders. These stockholders have significant influence over all matters submitted to our stockholders, including the election of our directors, and could accelerate, delay, deter or prevent a change of control of the Company. The significant stockholders who are also members of the Board of Directors could significantly affect our business, policies and affairs.

Our operations are subject to currency rate fluctuations.

Our operations are subject to fluctuations in foreign currency exchange rates between the U.S. dollar and the Canadian dollar. Our financial statements, presented in U.S. dollars, may be affected by foreign currency fluctuations through both translation risk and transaction risk. Volatility in exchange rates may adversely affect our results of operations, particularly through the weakening of the U.S. dollar relative to the Canadian dollar which may affect the relative prices at which we sell our oil and natural gas and may affect the cost of certain items required in our operations. To date, we have not entered into foreign currency hedging transactions to control or minimize these risks.

Adverse changes in actuarial assumptions used to calculate retirement plan costs due to economic or other factors, or lower returns on plan assets could adversely affect Barnwell's results and financial condition.

Retirement plan cash funding obligations and plan expenses and obligations are subject to a high degree of uncertainty and could increase in future years depending on numerous factors, including the performance of the financial markets, specifically the equity markets, levels of interest rates, and the cost of health care insurance premiums.

The price of our common stock has been volatile and could continue to fluctuate substantially.

The market price of our common stock has been volatile and could fluctuate based on a variety of factors, including:

- fluctuations in commodity prices;
- variations in results of operations;
- announcements by us and our competitors;
- legislative or regulatory changes;
- general trends in the industry;
- general market conditions;
- litigation; and
- analysts' estimates and other events applicable to our industries.

Failure to retain key personnel could hurt our operations.

We require highly skilled and experienced personnel to operate our business. In addition to competing in highly competitive industries, we compete in a highly competitive labor market. Our business could be adversely affected by an inability to retain personnel or upward pressure on wages as a result of the highly competitive labor market. Further, there are significant personal liability risks to Barnwell of Canada's individual officers and directors related to well clean-up costs that may affect our ability to attract or retain the necessary people.

We are a smaller reporting company and benefit from certain reduced governance and disclosure requirements, including that our independent registered public accounting firm is not required to attest to the effectiveness of our internal control over financial reporting. We cannot be certain if the omission of reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.

Currently, we are a “smaller reporting company,” meaning that our outstanding common stock held by nonaffiliates had a value of less than \$250 million at the end of our most recently completed second fiscal quarter. As a smaller reporting company, we are not required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, meaning our auditors are not required to attest to the effectiveness of the Company’s internal control over financial reporting. As a result, investors and others may be less comfortable with the effectiveness of the Company’s internal controls and the risk that material weaknesses or other deficiencies in internal controls go undetected may increase. In addition, as a smaller reporting company, we take advantage of our ability to provide certain other less comprehensive disclosures in our SEC filings, including, among other things, providing only two years of audited financial statements in annual reports and simplified executive compensation disclosures. Consequently, it may be more challenging for investors to analyze our results of operations and financial prospects, as the information we provide to stockholders may be different from what one might receive from other public companies in which one hold shares. As a smaller reporting company, we are not required to provide this information.

Risks Related to Oil and Natural Gas Segment

Acquisitions or discoveries of additional reserves are needed to increase our oil and natural gas segment operating results and cash flow.

Since fiscal 2014, Barnwell has been selectively divesting oil and natural assets to improve operational focus, reduce abandonment liabilities, and decrease the Company's debt burden, however, as a result of these sales, our oil and natural gas segment revenues and operating cash flow have significantly declined. Most notably, in September 2015, we sold our interest in our principal oil and natural gas property Dunvegan, which resulted in a 60% decrease in our proved natural gas reserves and a 34% decrease in our proved oil and natural gas liquids reserves. In fiscal 2015, Dunvegan contributed 46% of our total oil and natural gas revenues. In February 2018, we sold our interest in our oil and natural gas property Red Earth. Red Earth represented 0.07% of our proved natural gas reserves and 25% of our proved oil and natural gas liquids reserves as of September 30, 2017, and 22% of our total oil and natural gas revenues in the year ended September 30, 2017.

In August 2018, Barnwell made a significant reinvestment into its oil and natural gas segment with the acquisition of the Twining property in Alberta, Canada which resulted in a significant increase in our proved reserves. However, a significant portion of those proved reserves include proved undeveloped reserves for which it is estimated that \$14,000,000 in future capital expenditures will need to be made to convert those undeveloped reserves into developed reserves. The ability to convert the undeveloped reserves to developed reserves will be heavily influenced by the cash flows generated by the oil and natural gas segment, the results of such drilling, and the need for and sufficiency of any potential future capital financing. If future circumstances are such that we are not able to make the capital expenditures necessary to convert the undeveloped reserves to developed reserves, our future reserves and resulting operating results and cash flows from our reserves will be less than our expectations and less than the estimations included in this report. Also, continued reinvestment in oil and natural gas segment assets are needed to replace the significant amount of reserves produced and sold.

Future oil and natural gas operating results and cash flow are highly dependent upon our level of success in acquiring or finding additional reserves on an economic basis. We cannot guarantee that we will be successful in developing or acquiring additional reserves and our current financial resources may be insufficient to make such investments. Furthermore, if oil or natural gas prices increase, our cost for additional reserves could also increase.

We may have difficulty funding oil and natural gas segment capital expenditures which could have an adverse effect on our business.

Conversion of our proved undeveloped reserves into proved developed reserves will require substantial capital expenditures which we intend to fund using cash on hand and operational cash generated, if any. However, the Company's current cash on hand is likely to be needed to fund upcoming cash needs including asset retirement obligations, retirement plan funding, and ongoing operating and general and administrative expenses, such that some or potentially all of the cash will not be available for reinvestment. Future cash flows from operations are uncertain and are based on a number of variables including the level of production from existing wells, oil and natural gas prices, and our success in acquiring and developing new reserves.

Disruptions in the capital and credit markets, in particular with respect to companies in the energy sector, could limit our ability to access these markets or may significantly increase our cost to borrow. Decreases in commodity prices in recent years, among other factors, are causing and may continue to cause lenders to increase interest rates, enact tighter lending standards which we may not be able to satisfy, and reduce or cease to provide funding to borrowers. If additional capital is required, we may not be able to obtain financing on terms favorable to us, or at all. If cash on hand and cash generated by operations, if any, is not sufficient to meet our capital requirements, the failure to obtain additional financing could limit our ability to fund capital expenditures, and we may need to curtail the development of our proved undeveloped reserves or be forced to sell some of our oil and natural gas segment assets under untimely or unfavorable terms. Any such curtailment or sale could have a material adverse effect on our business, financial condition and results of operations.

We may not realize an adequate return on oil and natural gas investments.

Drilling for oil and natural gas involves numerous risks, including the risk that we will not encounter commercially productive oil or natural gas reservoirs. The wells we drill or participate in may not be productive, and we may not recover all or any portion of our investment in those wells. If future oil and natural gas segment acquisition and development activities are not successful it could have an adverse effect on our future results of operations and financial condition.

Oil and natural gas prices are highly volatile and further declines, or extended low prices will significantly affect our financial condition and results of operations.

Much of our revenues and cash flow are greatly dependent upon prevailing prices for oil and natural gas. Lower oil and natural gas prices not only decrease our revenues on a per unit basis, but also reduce the amount of oil and natural gas we can produce economically, if any. Prices that do not produce sufficient operating margins will have a material adverse effect on our operations, financial condition, operating cash flows, borrowing ability, reserves, and the amount of capital that we are able to allocate for the acquisition and development of oil and natural gas reserves.

Various factors beyond our control affect prices of oil and natural gas including, but not limited to, changes in supply and demand, market uncertainty, weather, worldwide political instability, foreign supply of oil and natural gas, the level of consumer product demand, government regulations and taxes, the price and availability of alternative fuels and the overall economic environment. Energy prices are also subject to other political and regulatory actions outside our control, which may include changes in the policies of the Organization of the Petroleum Exporting Countries or other developments involving or affecting oil-producing countries, or actions or reactions of the government of the United States in anticipation of or in response to such developments.

The inability of one or more of our working interest partners to meet their obligations may adversely affect our financial results.

For our operated properties, we pay expenses and bill our non-operating partners for their respective shares of costs. Some of our non-operating partners may experience liquidity problems and may not be able to meet their financial obligations. Nonperformance by a non-operating partner could result in significant financial losses.

Liquidity problems encountered by our working interest partners or the third party operators of our non-operated properties may also result in significant financial losses as the other working interest partners or third party operators may be unwilling or unable to pay their share of the costs of projects as they become due. In the event a third party operator of a non-operated property becomes insolvent, it may result in increased operating expenses and cash required for abandonment liabilities if the Company is required to take over operatorship. Barnwell holds a 10% working interest, the largest working interest other than that held by the operator, in a property with approximately 80 wells where the operator is in receivership.

We may incur material costs to comply with or as a result of health, safety, and environmental laws and regulations.

The oil and natural gas industry is subject to extensive environmental regulation pursuant to local, provincial and federal legislation. A violation of that legislation may result in the imposition of fines or the issuance of “clean up” orders. Legislation regulating the oil and natural gas industry may be changed to impose higher standards and potentially more costly obligations. Although we have recorded a provision in our financial statements relating to our estimated future environmental and reclamation obligations that we believe is reasonable, we cannot guarantee that we will be able to satisfy our actual future environmental and reclamation obligations.

Barnwell's oil and natural gas segment is subject to the provisions of the Alberta Energy Regulator's (“AER”) Licensee Liability Rating (“LLR”) program. Under the LLR program the AER calculates a Liability Management Ratio (“LMR”) for a company based on the ratio of the company’s deemed assets over its deemed liabilities relating to wells and facilities for which the company is the licensed operator and imposes a security deposit on operators whose estimated liabilities exceed their deemed asset value. At September 30, 2018, the Company had sufficient deemed asset value that no security deposit was due. However, decreases in prices and production and related netbacks from relevant properties could result in a decline in the Company's deemed asset value to a point where a deposit could be due in the future.

The AER requires purchasers of AER licensed oil and natural gas assets to have an LMR of 2.0 or higher immediately following the transfer of a license. This LMR requirement for well transfers hinders our ability to generate capital by selling oil and natural gas assets as there are less qualified buyers.

A requirement to provide security deposit funds to the AER in the future would result in the diversion of cash on hand and operating cash flows that could otherwise be used to fund oil and natural gas reserve replacement efforts, which could in turn have a material adverse effect on our business, financial condition and results of operations. If Barnwell fails to comply with the requirements of the LLR program, Barnwell's oil and natural gas subsidiary would be subject to the AER's enforcement provisions which could include suspension of operations and non-compliance fees and could ultimately result in the AER serving the Company with a closure order to shut-in all operated wells. Additionally, if Barnwell is non-compliant, the Company would be prohibited from transferring well licenses which would prohibit us from selling any oil and natural gas assets until the required cash deposit is made with the AER.

We are not fully insured against certain environmental risks, either because such insurance is not available or because of high premium costs. In particular, insurance against risks from environmental pollution occurring over time, as opposed to sudden and catastrophic damages, is not available on economically reasonable terms. Accordingly, any site reclamation or abandonment costs actually incurred in the ordinary course of business in a specific period could negatively impact our cash flow. Should we be unable to fully fund the cost of remedying an environmental problem, we might be required to suspend operations or enter into interim compliance measures pending completion of the required remedy.

We may fail to fully identify potential problems related to acquired reserves or to properly estimate those reserves.

We periodically evaluate acquisitions of reserves, properties, prospects and leaseholds and other strategic transactions that appear to fit within our overall business strategy. Our evaluation includes an assessment of reserves, future oil and natural gas prices, operating costs, potential for future drilling and production, validity of the seller's title to the properties and potential environmental issues, litigation and other liabilities.

In connection with these assessments, we perform a review of the subject properties that we believe to be generally consistent with industry practices. Our review will not reveal all existing or potential problems nor will it permit us to become sufficiently familiar with the properties to fully assess their deficiencies and potential recoverable reserves. Inspections may not always be performed on every well, and environmental problems are not necessarily observable even when an inspection is undertaken. Even when problems are identified, the seller may be unwilling or unable to provide effective contractual protection against all or part of the problems. We often are not entitled to contractual indemnification for environmental liabilities or title defects in excess of the amounts claimed by us before closing and acquire properties on an "as is" basis.

There are numerous uncertainties inherent in estimating quantities of proved oil and gas reserves and future production rates and costs with respect to acquired properties, and actual results may vary substantially from those assumed in the estimates.

If oil and natural gas prices decline, we may be required to take write-downs of the carrying values of our oil and natural gas properties.

Oil and natural gas prices affect the value of our oil and natural gas properties as determined in our full cost ceiling calculation. Any future ceiling test write-downs will result in reductions of the carrying value of our oil and natural gas properties and an equivalent charge to earnings.

The oil and natural gas industry is highly competitive.

We compete for capital, acquisitions of reserves, undeveloped lands, skilled personnel, access to drilling rigs, service rigs and other equipment, access to processing facilities, pipeline capacity and in many other respects with a substantial number of other organizations, most of which have greater technical and financial resources than we do. Some of these organizations explore for, develop and produce oil and natural gas, carry on refining operations and market oil and other products on a worldwide basis. As a result of these complementary activities, some of our competitors may have competitive resources that are greater and more diverse than ours. Furthermore, many of our competitors may have a competitive advantage when responding to factors that affect demand for oil and natural gas production, such as changing prices and production levels, the cost and availability of alternative fuels and the application of government regulations. If our competitors are able to capitalize on these competitive resources, it could adversely affect our revenues.

An increase in operating costs greater than anticipated could have a material adverse effect on our results of operations and financial condition.

Higher operating costs for our properties will directly decrease the amount of cash flow received by us. Electricity, supplies, and labor costs are a few of the operating costs that are susceptible to material fluctuation. The need for significant repairs and maintenance of infrastructure may increase as our properties age. A significant increase in operating costs could negatively impact operating results and cash flow.

Our operating results are affected by our ability to market the oil and natural gas that we produce.

Our business depends in part upon the availability, proximity and capacity of oil and natural gas gathering systems, pipelines and processing facilities. Canadian federal and provincial, as well as United States federal and state, regulation of oil and natural gas production, processing and transportation, tax and energy policies, general economic conditions, and changes in supply and demand could adversely affect our ability to produce and market oil and natural gas. If market factors change and inhibit the marketing of our production, overall production or realized prices may decline.

We are not the operator and have limited influence over the operations of certain of our oil and natural gas properties.

We hold minority interests in certain of our oil and natural gas properties. As a result, we cannot control the pace of exploration or development, major decisions affecting the drilling of wells, the plan for development and production at non-operated properties, or the timing and amount of costs related to abandonment and reclamation activities although contract provisions give Barnwell certain consent rights in some matters. The operator's influence over these matters can affect the pace at which we incur capital expenditures. Additionally, as certain underlying joint venture data is not accessible to us, we depend on the operators at non-operated properties to provide us with reliable accounting information. We also depend on operators and joint operators to maintain the financial resources to fund their share of all abandonment and reclamation costs.

Actual reserves will vary from reserve estimates.

Estimating reserves is inherently uncertain and the reserves estimation process involves significant decisions and assumptions in the evaluation of available geological, geophysical, engineering and economic data. The reserve data and standardized measures set forth herein are only estimates. Ultimately, actual reserves attributable to our properties will vary from estimates, and those variations may be material. The estimation of reserves involves a number of factors and assumptions, including, among others:

- oil and natural gas prices as prescribed by SEC regulations;
- historical production from our wells compared with production rates from similar producing wells in the area;
- future commodity prices, production and development costs, royalties and capital expenditures;
- initial production rates;
- production decline rates;
- ultimate recovery of reserves;
- success of future development activities;
- marketability of production;
- effects of government regulation; and
- other government levies that may be imposed over the producing life of reserves.

If these factors, assumptions and prices prove to be inaccurate, actual results may vary materially from reserve estimates.

Delays in business operations could adversely affect the amount and timing of our cash inflows.

In addition to the usual delays in payment by purchasers of oil and natural gas to the operators of our properties, and the delays of those operators in remitting payment to us, payments between any of these parties may also be delayed by:

- restrictions imposed by lenders;
- accounting delays;
- delays in the sale or delivery of products;
- delays in the connection of wells to a gathering system;
- blowouts or other accidents;
- adjustments for prior periods;
- recovery by the operator of expenses incurred in the operation of the properties; and
- the establishment by the operator of reserves for these expenses.

Any of these delays could expose us to additional third party credit risks.

The oil and natural gas market in which we operate exposes us to potential liabilities that may not be covered by insurance.

Our operations are subject to all of the risks associated with the operation and development of oil and natural gas properties, including the drilling of oil and natural gas wells, and the production and transportation of oil and natural gas. These risks include encountering unexpected formations or pressures, premature declines of reservoirs, blow-outs, equipment failures and other accidents, cratering, sour gas releases, uncontrollable flows of oil, natural gas or well fluids, adverse weather conditions, pollution, other

environmental risks, fires and spills. A number of these risks could result in personal injury, loss of life, or environmental and other damage to our property or the property of others.

While we carry various levels of insurance, we could be affected by civil, criminal, regulatory or administrative actions, claims or proceedings. We cannot fully protect against all of the risks listed above, nor are all of these risks insurable. There is no assurance that any applicable insurance or indemnification agreements will adequately protect us against liability for the risks listed above. We could face substantial losses if an event occurs for which we are not fully insured or are not indemnified against or a customer or insurer fails to meet its indemnification or insurance obligations. In addition, there can be no assurance that insurance will continue to be available to cover any or all of these risks, or, even if available, that insurance premiums or other costs will not rise significantly in the future, so as to make the cost of such insurance prohibitive.

Deficiencies in operating practices and record keeping, if any, may increase our risks and liabilities relating to incidents such as spills and releases and may increase the level of regulatory enforcement actions.

Our operations are subject to domestic and foreign government regulation and other risks, particularly in Canada and the United States.

Barnwell's oil and natural gas operations are affected by political developments and laws and regulations, particularly in Canada and the United States, such as restrictions on production, restrictions on imports and exports, the maintenance of specified reserves, tax increases and retroactive tax claims, expropriation of property, cancellation of contract rights, environmental protection controls, environmental compliance requirements and laws pertaining to workers' health and safety. Further, the right to explore for and develop oil and natural gas on lands in Alberta, Saskatchewan and British Columbia is controlled by the governments of each of those provinces. Changes in royalties and other terms of provincial leases, permits and reservations may have a substantial effect on Barnwell's operations. We derive a significant portion of our revenues from our operations in Canada; 41% in fiscal 2018.

Additionally, our ability to compete in the Canadian oil and natural gas industry may be adversely affected by governmental regulations or other policies that favor the awarding of contracts to contractors in which Canadian nationals have substantial ownership interests. Furthermore, we may face governmentally imposed restrictions or fees from time to time on the transfer of funds to the U.S.

Government regulations control and often limit access to potential markets and impose extensive requirements concerning employee safety, environmental protection, pollution control and remediation of environmental contamination. Environmental regulations, in particular, prohibit access to some markets and make others less economical, increase equipment and personnel costs and often impose liability without regard to negligence or fault. In addition, governmental regulations may discourage our customers' activities, reducing demand for our products and services.

Compliance with foreign tax and other laws may adversely affect our operations.

Tax and other laws and regulations are not always interpreted consistently among local, regional and national authorities. Income tax laws, other legislation or government incentive programs relating to the oil and natural gas industry may in the future be changed or interpreted in a manner that adversely affects us and our stockholders. It is also possible that in the future we will be subject to disputes concerning taxation and other matters in Canada, including the manner in which we calculate our income for tax purposes, and these disputes could have a material adverse effect on our financial performance.

Unforeseen title defects may result in a loss of entitlement to production and reserves.

Although we conduct title reviews in accordance with industry practice prior to any purchase of resource assets or property, such reviews do not guarantee that an unforeseen defect in the chain of title will not arise and defeat our title to the purchased assets. If such a defect were to occur, our entitlement to the production from such purchased assets could be jeopardized.

Risks Related to Land Investment Segment

Receipt of future payments from KD I and KD II and cash distributions from the Kukio Resort Land Development Partnerships is dependent upon the developer's continued efforts and ability to develop and market the property.

We are entitled to receive future payments based on a percentage of the sales prices of residential lots sold within the Kaupulehu area by KD I and KD II as well as a percentage of future distributions KD II makes to its members. However, in order to collect such payments we are reliant upon the developer, KD I and KD II, in which we own a non-controlling ownership interest, to continue to market the remaining lots within Increment I and to proceed with the development or sale of the remaining portion of Increment II. Additionally, future cash distributions from the Kukio Resort Land Development Partnerships, which includes KD I and KD II, are also dependent on future lot sales in Increment I by KD I and the development or sale of Increment II by KD II. It is uncertain when or if KD II will develop or sell the remaining portion of Increment II, and there is no assurance with regards to the amounts of future sales from Increments I and II. KD II is required to submit an overall status report of the project, including the percentage of completed development, by April 20, 2019. There is a possibility that regulatory authorities could impose adverse conditions of approval that impede the developer's goals, or outright refuse to extend the allowed zoning beyond April 20, 2019, which would have an adverse impact on the value of the property. Currently, a formal request for a 20-year time extension of the original development period was submitted by the general partner and reviewed by the regulatory authorities. Although the initial response has been favorable, a 20-year extension has not been granted to date. We do not have a controlling interest in the partnerships, and therefore are dependent on the general partner for development decisions. The receipt of future payments and cash distributions could be jeopardized if the developer fails to proceed with development and marketing of the property.

We hold investment interests in unconsolidated land development partnerships, which are accounted for using the equity method of accounting, in which we do not have a controlling interest. These investments involve risks and are highly illiquid.

These investments involve risks which include:

- the lack of a controlling interest in these partnerships and, therefore, the inability to require that the entities sell assets, return invested capital or take any other action without obtaining the majority vote of partners;
- potential for future additional capital contributions to fund operations and development activities;
- the adverse impact on overall profitability if the entities do not achieve the financial results projected;
- the reallocation of amounts of capital from other operating initiatives and/or an increase in indebtedness to pay potential future additional capital contributions, which could in turn restrict

our ability to access additional capital when needed or to pursue other important elements of our business strategy; undisclosed, contingent or other liabilities or problems, unanticipated costs, and an inability to recover or manage such liabilities and costs; and certain underlying partnership data is not accessible to us, therefore we depend on the general partner to provide us with reliable accounting information.

We may be required to write-down the carrying value of our investment in the Kukio Resort Land Development Partnerships if our assumptions about future lot sales and profitability prove incorrect. Any write-down would negatively impact our results of operations.

In analyzing the value of our investment in the Kukio Resort Land Development Partnerships, we have made assumptions about the level of future lot sales, operating and development costs, cash generation and market conditions. These assumptions are based on management's and the general partner's best estimates and if the actual results differ significantly from these assumptions, we may not be able to realize the value of the assets recorded, which could lead to an impairment of certain of these assets in the future. Such a write-down would have a negative impact on our results of operations.

Our land investment business is concentrated in the state of Hawaii. As a result, our financial results are dependent on the economic growth and health of Hawaii, particularly the island of Hawaii.

Barnwell's land investment segment is impacted by the condition of Hawaii's real estate market, which is affected by Hawaii's economy and Hawaii's tourism industry, as well as the United States and world economies in general. Any future cash flows from Barnwell's land development activities are subject to, among other factors, the level of real estate activity and prices, the demand for new housing and second homes on the island of Hawaii, the rate of increase in the cost of building materials and labor, the introduction of building code modifications, changes to zoning laws, and the level of confidence in Hawaii's economy.

The occurrence of natural disasters in Hawaii could adversely affect our business.

The occurrence of a natural disaster in Hawaii such as, but not limited to, earthquakes, landslides, hurricanes, tornadoes, tsunamis, volcanic activity, droughts and floods, could have a material adverse effect on our land investments. The occurrence of a natural disaster could also cause property and flood insurance rates and deductibles to increase, which could reduce demand for real estate in Hawaii.

Risks Related to Contract Drilling Segment

Demand for water well drilling and/or pump installation is volatile. A decrease in demand for our services could adversely affect our revenues and results of operations.

Demand for services is highly dependent upon land development activities in the state of Hawaii. As also noted above, the real estate development industry is cyclical in nature and is particularly vulnerable to shifts in local, regional, and national economic conditions outside of our control such as interest rates, housing demand, population growth, employment levels and job growth and property taxes. A decrease in water well drilling and/or pump installation contracts will result in decreased revenues and operating results.

If we are unable to accurately estimate the overall risks, requirements or costs when bidding on or negotiating a contract that is ultimately awarded, we may achieve a lower than anticipated profit or incur a loss on the contract.

Contracts are usually fixed price per lineal foot drilled and require the provision of line-item materials at a fixed unit price based on approved quantities irrespective of actual per unit costs. Under such contracts, prices are established in part on cost and scheduling estimates, which are based on a number of assumptions, many of which are beyond our control. Expected profits on contracts are realized only if costs are accurately estimated and successfully controlled. We may not be able to obtain compensation for additional work performed or expenses incurred as a result of changes or inaccuracies in these estimates and underlying assumptions, such as unanticipated sub-surface site conditions, unanticipated technical problems, equipment failures, inefficiencies, cost of raw materials, schedule delays due to constraints on drilling hours, weather delays, or accidents. If cost estimates for a contract are inaccurate, or if the contract is not performed within cost estimates, then cost overruns may result in losses or cause the contract not to be as profitable as expected.

A significant portion of our contract drilling business is dependent on municipalities and a decline in municipal spending could adversely impact our business.

A significant portion of our contract drilling division revenues is derived from water and infrastructure contracts with governmental entities or agencies; 58% in fiscal 2018. Reduced tax revenues and governmental budgets may limit spending by local governments which in turn will affect the demand for our services. Material reductions in spending by a significant number of local governmental agencies could have a material adverse effect on our business, results of operations, liquidity and financial position.

Our contract drilling operations face significant competition.

We face competition for our services from a variety of competitors. Many of our competitors utilize drilling rigs that drill as quickly as our equipment but require less labor. Our strategy is to compete based on pricing and to a lesser degree, quality of service. If we are unable to compete effectively with our competitors, our financial results could be adversely affected.

The loss of or damage to key vendor, customer or sub-contractor relationships would adversely affect our operations.

Our contract drilling business is dependent on our relationships with key vendors, customers and subcontractors. The loss of or damage to any of our key relationships could negatively affect our business.

Awarding of contracts is dependent upon our ability to obtain contract bid and performance bonds from insurers.

There can be no assurance that our ability to obtain such bonds will continue on the same basis as the past. Additionally, bonding insurance rates may increase and have an impact on our ability to win competitive bids, which could have a corresponding material impact on contract drilling operating results.

The contracts in our backlog are subject to change orders and cancellation.

Our backlog consists of the uncompleted portion of services to be performed under contracts that have been started and new contracts not yet started. Our contracts are subject to change orders and cancellations, and such changes could adversely affect our operations.

The occurrence of natural disasters in Hawaii could adversely affect our business.

The occurrence of a natural disaster in Hawaii such as, but not limited to, earthquakes, landslides, hurricanes, tornadoes, tsunamis, volcanic activity, droughts and floods, could have a material adverse effect on our ability to complete our contracts.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Oil and Natural Gas and Land Investment Properties

The location and character of Barnwell's oil and natural gas properties and its land investment properties, are described above under Item 1, "Business."

Corporate Offices

Barnwell, through a wholly-owned subsidiary, owns the 29th floor of a commercial office building in downtown Honolulu that it uses as its corporate office.

ITEM 3. LEGAL PROCEEDINGS

Barnwell is routinely involved in disputes with third parties that occasionally require litigation. In addition, Barnwell is required to maintain compliance with all current governmental controls and regulations in the ordinary course of business. Barnwell's management is not aware of any claims or litigation involving Barnwell that are likely to have a material adverse effect on its results of operations, financial position or liquidity.

ITEM 4. MINE SAFETY DISCLOSURES

Disclosure is not applicable to Barnwell.

PART II

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

Market Information

The principal market on which Barnwell’s common stock is being traded is the NYSE American under the ticker symbol “BRN.” The following tables present the quarterly high and low sales prices, on the NYSE American, for Barnwell’s common stock during the periods indicated:

| Quarter Ended | High | Low | Quarter Ended | High | Low |
|--------------------|--------|--------|--------------------|--------|--------|
| December 31, 2016 | \$2.04 | \$1.55 | December 31, 2017 | \$2.70 | \$1.80 |
| March 31, 2017 | \$2.70 | \$1.58 | March 31, 2018 | \$2.95 | \$1.80 |
| June 30, 2017 | \$2.21 | \$1.70 | June 30, 2018 | \$2.47 | \$1.63 |
| September 30, 2017 | \$1.93 | \$1.62 | September 30, 2018 | \$2.95 | \$1.69 |

Holder

As of December 1, 2018, there were 8,277,160 shares of common stock, par value \$0.50, outstanding. As of December 1, 2018, there were approximately 90 shareholders of record and approximately 1,000 beneficial owners.

Dividends

No dividends were declared or paid during fiscal years 2018 or 2017. The payment of future cash dividends will depend on, among other things, our financial condition, operating cash flows, the amount of cash inflows from land investment activities, and the level of our oil and natural gas capital expenditures.

Securities Authorized for Issuance Under Equity Compensation Plans

See the information included in Part III, Item 12, under the caption “Equity Compensation Plan Information.”

Stock Performance Graph and Cumulative Total Return

Disclosure is not required as Barnwell qualifies as a smaller reporting company.

ITEM 6. SELECTED FINANCIAL DATA

Disclosure is not required as Barnwell qualifies as a smaller reporting company.

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

The following discussion is intended to assist in the understanding of the Consolidated Balance Sheets of Barnwell Industries, Inc. and subsidiaries (collectively referred to herein as "Barnwell," "we," "our," "us" or the "Company") as of September 30, 2018 and 2017, and the related Consolidated Statements of Operations, Comprehensive (Loss) Income, Equity, and Cash Flows for the years ended September 30, 2018 and 2017. This discussion should be read in conjunction with the consolidated financial statements and related Notes to Consolidated Financial Statements included in this report.

Current Outlook

The Twining reserves acquired consist of proved producing reserves as well as a significant amount of proved reserves that are undeveloped. Our proved undeveloped reserves are estimated to require roughly \$14,000,000 in future oil and natural gas capital expenditures to develop within the next five years. Cash flows generated by developed Twining reserves are estimated by our independent reserve engineering firm to be sufficient to fund such capital expenditures. However, as the independent reserve engineering firm's estimates do not consider items such as our ongoing general and administrative expenses, it is possible that we will need to obtain a significant amount of new financing in the form of debt or equity in order to develop the reserves to the level estimated by our independent reserve engineers if the cash inflows estimated by the Company's executive management are not sufficient.

Our ability to sustain our business in the future will depend on sufficient oil and natural gas operating cash flows, which are highly sensitive to potentially volatile oil and natural gas prices, sufficient future land investment segment proceeds and distributions from the Kukio Resort Land Development Partnerships, the timing of which are both highly uncertain and not within Barnwell's control, and our ability to fund our needed oil and natural gas capital expenditures and the level of success of such capital expenditures, as well as our ability to fund oil and natural gas asset retirement obligations and ongoing operating and general and administrative expenses.

Management believes our current cash balances, working capital and future cash inflows from operations will be sufficient to fund its estimated cash outflows for the next 12 months. However, if oil and natural gas and land investment cash inflows and any needed new financing sources are not sufficient to sustain our longer term business plans, which are currently based upon assumptions and estimates that may not materialize, or if unforeseen circumstances arise that impair our ability to sustain or grow our business, the Company may need to consider further sales of our assets or alternative strategies, or we may be forced to wind down our operations, either through liquidation or bankruptcy, and we may not be able to continue as a going concern in 2020 and beyond.

Critical Accounting Policies and Estimates

The Company considers an accounting estimate to be critical if the accounting estimate requires the Company to make assumptions that are difficult or subjective about matters that were highly uncertain at the time that the accounting estimate was made, and changes in the estimate that are reasonably likely to occur in periods subsequent to the period in which the estimate was made, or use of different estimates that the Company could have used in the current period, would have a material impact on the Company's financial condition or results of operations. The most critical accounting policies inherent in the preparation of the

Company's consolidated financial statements are described below. We continue to monitor our accounting policies to ensure proper application of current rules and regulations.

Oil and Natural Gas Properties - full cost ceiling calculation and depletion

Policy Description

We use the full cost method of accounting for our oil and natural gas properties under which we are required to conduct quarterly calculations of a "ceiling," or limitation, on the carrying value of oil and natural gas properties. The ceiling limitation is the sum of 1) the discounted present value (at 10%), using average first-day-of-the-month prices during the 12-month period ending as of the balance sheet date held constant over the life of the reserves, of Barnwell's estimated future net cash flows from estimated production of proved oil and natural gas reserves, less estimated future expenditures to be incurred in developing and producing the proved reserves but excluding future cash outflows associated with settling asset retirement obligations with the exception of those associated with proved undeveloped reserves from wells that are to be drilled in the future; plus 2) the cost of major development projects and unproven properties not subject to depletion, if any; plus 3) the lower of cost or estimated fair value of unproven properties included in costs subject to depletion; less 4) related income tax effects. If net capitalized costs exceed this limit, the excess is expensed.

Judgments and Assumptions

The estimate of our oil and natural gas reserves is a major component of the ceiling calculation and represents the component that requires the most subjective judgments. Estimates of reserves are forecasts based on engineering data, historical data, projected future rates of production and the timing of future expenditures. The process of estimating oil and natural gas reserves requires substantial judgment, resulting in imprecise determinations, particularly for new discoveries. Our reserve estimates are prepared at least annually by independent petroleum reserve engineers. The passage of time provides more quantitative and qualitative information regarding estimates of reserves, and revisions are made to prior estimates to reflect updated information. A portion of the revisions are attributable to changes in the rolling 12-month average first-day-of-the-month prices, which impact the economics of producible reserves. In the last three fiscal years, annual revisions to our reserve volume estimates have averaged 39% of the previous year's estimate, due in large part to the impacts of volatile oil and natural gas prices which change the economic viability of producing such reserves. There can be no assurance that more significant revisions will not be necessary in the future. If future significant revisions are necessary that reduce previously estimated reserve quantities, such revisions could result in a write-down of oil and natural gas properties.

Included in proved reserves at September 30, 2018 are proved undeveloped reserves. The proved undeveloped reserves are estimated to be brought about by future capital expenditures that will be made to convert those reserves into proved developed reserves within a five-year time frame, as required by the SEC. Both the amount of such future capital expenditures and the amount of undeveloped reserves converted to developed reserves resulting from those capital expenditures are based on assumptions and estimates using the parameters and judgments mentioned above. Our independent petroleum reserve engineers have estimated that there are sufficient cash flows from our oil and natural gas reserves to fund the estimated capital expenditures necessary to convert the proved undeveloped reserves to developed reserves. If the Company's future business results differ from the assumptions used in the current estimates of its reserves, the Company may not have the ability to fund such capital expenditures, in which case some or all of the proved undeveloped reserves would remain undeveloped or possibly then excluded from proved reserves. Both the calculation of depletion expense and the ceiling test include proved undeveloped reserves, in conformity with SEC rules.

In addition, the estimated cost of the future capital expenditures necessary to convert the proved undeveloped reserves to developed reserves are included in costs subject to depletion in the calculation of depletion expense, in conformity with SEC rules.

If reported reserve volumes were revised downward by 5% at the end of fiscal 2018, the ceiling limitation would have decreased approximately \$1,040,000 before income taxes, which would not have resulted in a reduction of the carrying value of oil and gas properties before income taxes.

In addition to the impact of the estimates of proved reserves on the calculation of the ceiling, estimated proved reserves are also a significant component of the quarterly calculation of depletion expense. The lower the estimated reserves, the higher the depletion rate per unit of production. Conversely, the higher the estimated reserves, the lower the depletion rate per unit of production. If reported reserve volumes were revised downward by 5% as of the beginning of fiscal 2018, depletion for fiscal 2018 would have increased by approximately \$40,000.

While the quantities of proved reserves require substantial judgment, the associated prices of oil, natural gas and natural gas liquids reserves are the average first-day-of-the-month prices during the 12-month period ending in the reporting period on a constant basis as prescribed by SEC regulations. Additionally, the applicable discount rate that is used to calculate the discounted present value of the reserves is mandated at 10%. Costs included in future net revenues are determined in a similar manner. As such, the future net revenues associated with the estimated proved reserves are not based on an assessment of future prices or costs.

Income Taxes

Policy Description

Income taxes are determined using the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax impacts of differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Deferred income tax assets are routinely assessed for realizability. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Barnwell recognizes the financial statement effects of tax positions when it is more likely than not that the position will be sustained by a taxing authority.

Judgments and Assumptions

We make estimates and judgments in determining our income tax expense for each reporting period. Significant changes to these estimates could result in an increase or decrease in our tax provision in future periods. We are also required to make judgments about the recoverability of deferred tax assets and when it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is provided. We consider available positive and negative evidence and available tax planning strategies when assessing the realizability of deferred tax assets. Accordingly, changes in our business performance and unforeseen events could require a further increase in the valuation allowance or a reversal in the valuation

allowance in future periods. This could result in a charge to, or an increase in, income in the period such determination is made, and the impact of these changes could be material.

In addition, Barnwell operates within the U.S. and Canada and is subject to audit by taxing authorities in these jurisdictions. Barnwell records accruals for the estimated outcomes of these audits, and the accruals may change in the future due to new developments in each matter. Tax benefits are recognized when we determine that it is more likely than not that such benefits will be realized. Management evaluates its potential exposures from tax positions taken that have or could be challenged by taxing authorities. These potential exposures result because taxing authorities may take positions that differ from those taken by management in the interpretation and application of statutes, regulations and rules. Management considers the possibility of alternative outcomes based upon past experience, previous actions by taxing authorities (e.g., actions taken in other jurisdictions) and advice from tax experts. Where uncertainty exists due to the complexity of income tax statutes and where the potential tax amounts are significant, we generally seek independent tax opinions to support our positions. If our evaluation of the likelihood of the realization of benefits is inaccurate, we could incur additional income tax and interest expense that would adversely impact earnings, or we could receive tax benefits greater than anticipated which would positively impact earnings, either of which could be material.

Overview

Barnwell is engaged in the following lines of business: 1) acquiring, developing, producing and selling oil and natural gas in Canada (oil and natural gas segment), 2) investing in land interests in Hawaii (land investment segment), and 3) drilling wells and installing and repairing water pumping systems in Hawaii (contract drilling segment).

Oil and Natural Gas Segment

Barnwell is involved in the acquisition and development of oil and natural gas properties in Canada where we initiate and participate in acquisition and developmental operations for oil and natural gas on properties in which we have an interest, and evaluate proposals by third parties with regard to participation in exploratory and developmental operations elsewhere.

Barnwell sells all of its oil and natural gas under short-term contracts with marketers based on prices indexed to market prices. The price of natural gas, oil and natural gas liquids is freely negotiated between the buyers and sellers. Oil and natural gas prices are determined by many factors that are outside of our control. Market prices for oil and natural gas products are dependent upon factors such as, but not limited to, changes in market supply and demand, which are impacted by overall economic activity, changes in weather, pipeline capacity constraints, inventory storage levels, and output. Oil and natural gas prices are very difficult to predict and fluctuate significantly. Natural gas prices tend to be higher in the winter than in the summer due to increased demand, although this trend has become less pronounced due to the increased use of natural gas to generate electricity for air conditioning in the summer and increased natural gas storage capacity in North America.

Oil and natural gas exploration, development and operating costs generally follow trends in product market prices, thus in times of higher product prices the cost of exploring, developing and operating the oil and natural gas properties will tend to escalate as well. Capital expenditures are required to fund the exploration, development, and production of oil and natural gas. Cash outlays for capital expenditures are largely discretionary, however, a minimum level of capital expenditures is required to replace depleting

reserves. Due to the nature of oil and natural gas exploration and development, significant uncertainty exists as to the ultimate success of any drilling effort.

Land Investment Segment

The land investment segment is comprised of the following components:

1) Through Barnwell's 77.6% interest in Kaupulehu Developments, a Hawaii general partnership, 75% interest in KD Kona, a Hawaii limited liability limited partnership, and 34.45% non-controlling interest in KKM Makai, a Hawaii limited liability limited partnership, the Company's land investment interests include the following:

The right to receive percentage of sales payments from KD I resulting from the sale of single-family residential lots by KD I, within Increment I of the approximately 870 acres of the Kaupulehu Lot 4A area located in the North Kona District of the island of Hawaii. Kaupulehu Developments is entitled to receive payments from KD I based on the following percentages of the gross receipts from KD I's sales: 10% of such aggregate gross proceeds greater than \$100,000,000 up to \$300,000,000; and 14% of such aggregate gross proceeds in excess of \$300,000,000. Increment I is an area zoned for approximately 80 single-family lots, of which 20 remained to be sold at September 30, 2018, and a beach club on the portion of the property bordering the Pacific Ocean, and is partially developed.

The right to receive percentage of sales payments from KD II resulting from the sale of lots and/or residential units by KD II, within Increment II of Kaupulehu Lot 4A. Increment II is the remaining portion of the approximately 870-acre property and is zoned for single-family and multi-family residential units and a golf course and clubhouse. Kaupulehu Developments was entitled to receive payments from KD II based on a percentage of the gross receipts from KD II's sales ranging from 8% to 10% of the price of improved or unimproved lots or 2.60% to 3.25% of the price of units constructed on a lot, to be determined in the future depending upon a number of variables, including whether the lots are sold prior to improvement. Kaupulehu Developments is also entitled to receive 50% of any future distributions otherwise payable from KD II to its members up to \$8,000,000, of which \$3,500,000 has been received to date. Two ocean front parcels approximately two to three acres in size fronting the ocean were developed within Increment II by KD II. At September 30, 2018, both of the parcels have been sold, and the remaining acreage within Increment II is not yet under development.

An indirect 19.6% non-controlling ownership interest in KD Kukio Resorts, KD Maniniowali, and KDK. These entities own certain real estate and development rights interests in the Kukio, Maniniowali and Kaupulehu portions of Kukio Resort, a private residential community on the Kona coast of the island of Hawaii, as well as Kukio Resort's real estate sales office operations. KDK, which wholly owns KD I and KD II as discussed above, was the developer of Kaupulehu Lot 4A Increments I and II, the area in which Barnwell had interests in percentage of sales payments and percentage of future distributions to KD II's members. The partnerships derive income from the sale of residential parcels as well as from commission on real estate sales by the real estate sales office.

Approximately 1,000 acres of vacant leasehold land zoned conservation in the Kaupulehu Lot 4C area located adjacent to the 870-acre Lot 4A described above, which currently has no

development potential without both a development agreement with the lessor and zoning reclassification.

2) Barnwell owns an 80% interest in Kaupulehu 2007, a Hawaii limited liability limited partnership. During 2018, Kaupulehu 2007 sold the last residential parcel in the Kaupulehu Increment I area that was available for sale.
Contract Drilling Segment

Barnwell drills water and water monitoring wells and installs and repairs water pumping systems in Hawaii. Contract drilling results are highly dependent upon the quantity, dollar value and timing of contracts awarded by governmental and private entities and can fluctuate significantly.

Residential Real Estate

Barnwell, through its 80%-owned real estate joint venture, Kaupulehu 2007, constructed and sold luxury single-family homes in previous years. Kaupulehu 2007 does not currently have any homes under construction or any homes for sale.

Business Environment

Our operations are located in Canada and in the state of Hawaii. Accordingly, our business performance is directly affected by macroeconomic conditions in those areas, as well as general economic conditions of the U.S. domestic and world economies.

Oil and Natural Gas Segment

Barnwell realized an average price for oil of \$51.53 per barrel during the year ended September 30, 2018, an increase of 27% from \$40.72 per barrel realized during the prior year. The increase in the average price for oil over the past year is primarily a result of agreements made by both OPEC and non-OPEC producers to reduce production. We expect that oil prices will remain volatile in the near term and may be affected by economic growth figures, political instability, supply and pipeline capacity constraints.

Barnwell realized an average price for natural gas of \$1.12 per Mcf during the year ended September 30, 2018, a decrease of 43% from \$1.98 per Mcf realized during the prior year. Natural gas prices continued to be depressed at historic low levels in 2018 as a result of weak growth in demand and storage levels remaining high.

Land Investment Segment

Future land investment payments and any future cash distributions from our investment in the Kukio Resort Land Development Partnerships are dependent upon the sale of the remaining 20 residential lots within Increment I by KD I and potential future development or sale of the remaining portion of Increment II by KD II of Kaupulehu Lot 4A. The amount and timing of future land investment segment proceeds from percentage of sales payments and cash distributions from the Kukio Resort Land Development Partnerships are highly uncertain and out of our control, and there is no assurance with regards to the amounts of future sales of residential lots within Increments I and II.

Barnwell estimates that it will be heavily reliant upon land investment segment proceeds in order to provide sufficient liquidity to fund our operations in 2020 and beyond. However, there can be no assurance that the amount of future land investment segment proceeds will provide the liquidity required.

Contract Drilling Segment

Demand for water well drilling and/or pump installation and repair services is volatile and dependent upon land development activities within the state of Hawaii. Management currently estimates that well drilling activity for fiscal 2019 will be similar to or higher than fiscal 2018 based upon the value of contracts in backlog as well as contracts that have a high probability of being awarded based on negotiations to date.

Results of Operations

Summary

Net loss attributable to Barnwell for fiscal 2018 totaled \$1,770,000, a \$2,941,000 decrease in operating results from a net earnings of \$1,171,000 in fiscal 2017. The following factors affected the results of operations for the current fiscal year as compared to the prior fiscal year:

- A \$260,000 decrease in oil and natural gas segment operating results, before income taxes, due primarily to a decrease in oil and natural gas production due to past sales of oil and natural gas properties;
- A \$541,000 decrease in contract drilling segment operating results, before income taxes, primarily resulting from a high value contract in the prior year for the plugging and abandonment of two geothermal wells, whereas there was no such high value contract in the current year;
- A \$2,740,000 decrease in land investment segment operating profit, before income taxes and non-controlling interests' share of such profits, due a decrease in revenues received from the Kukio Resort Land Development Partnerships;
- A \$714,000 decrease in general and administrative expenses in the current year;
- A \$1,728,000 increase in gain on sale of assets due primarily to the sale of the Red Earth oil and natural gas property in the current year; and
- A \$2,053,000 decrease in equity in income from affiliates as a result of decreased operating results of the Kukio Resort Land Development Partnerships.

General

Barnwell conducts operations in the U.S. and Canada. Consequently, Barnwell is subject to foreign currency translation and transaction gains and losses due to fluctuations of the exchange rates between the Canadian dollar and the U.S. dollar. Barnwell cannot accurately predict future fluctuations of the exchange rates and the impact of such fluctuations may be material from period to period.

The average exchange rate of the Canadian dollar to the U.S. dollar increased 2% in fiscal 2018, as compared to fiscal 2017, and the exchange rate of the Canadian dollar to the U.S. dollar decreased 3% at September 30, 2018, as compared to September 30, 2017. Accordingly, the assets, liabilities, stockholders'

equity, and revenues and expenses of Barnwell's subsidiaries operating in Canada have been adjusted to reflect the change in the exchange rates. Barnwell's Canadian dollar assets are greater than its Canadian dollar liabilities; therefore, increases or decreases in the value of the Canadian dollar to the U.S. dollar generate other comprehensive income or loss, respectively. Other comprehensive income and losses are not included in net (loss) earnings. Other comprehensive loss due to foreign currency translation adjustments, net of taxes, for fiscal 2018 was \$128,000, a \$275,000 decrease from other comprehensive income due to foreign currency translation adjustments, net of taxes, of \$147,000 in fiscal 2017. There were no taxes on other comprehensive (loss) income due to foreign currency translation adjustments in fiscal 2018 and 2017 due to a full valuation allowance on the related deferred tax assets.

Oil and natural gas

Selected Operating Statistics

The following tables set forth Barnwell's annual average prices per unit of production and annual net production volumes for fiscal 2018 as compared to fiscal 2017. Production amounts reported are net of royalties.

| | Annual Average Price Per Unit | | | |
|--------------------|-------------------------------|----------|------------------------|-------|
| | 2018 | 2017 | Increase (Decrease) | % |
| Natural gas (Mcf)* | \$ 1.12 | \$ 1.98 | \$(0.86) | (43)% |
| Oil (Bbls) | \$ 51.53 | \$ 40.72 | \$ 10.81 | 27% |
| Liquids (Bbls) | \$ 43.02 | \$ 30.19 | \$ 12.83 | 42% |

| | Annual Net Production | | | |
|-------------------|-----------------------|---------|---------------------------------|-------|
| | 2018 | 2017 | Increase (Decrease) Units | % |
| Natural gas (Mcf) | 328,000 | 378,000 | (50,000) | (13)% |
| Oil (Bbls) | 62,000 | 81,000 | (19,000) | (23)% |
| Liquids (Bbls) | 5,000 | 5,000 | — | —% |

* Natural gas price per unit is net of pipeline charges.

The oil and natural gas segment generated a \$247,000 operating profit in fiscal 2018 before general and administrative expenses, a decrease in operating results of \$260,000 as compared to \$507,000 of operating profit in fiscal 2017.

Oil and natural gas revenues decreased \$677,000 (15%) from \$4,383,000 in fiscal 2017 to \$3,706,000 in fiscal 2018, primarily due to decreased oil and natural gas production due to sales of oil and natural gas properties as well as production downtime and shut-ins at various properties that we do not operate, and a decrease in natural gas prices. The impact of the decreases in production and lower natural gas prices were partially offset by higher oil prices in 2018, as compared to 2017, and new production from the Twining property acquired in late August 2018, as further discussed below.

Oil and natural gas operating expenses decreased \$395,000 (13%) from \$3,028,000 in fiscal 2017 to \$2,633,000 in fiscal 2018, primarily as a result of decreased production as described above.

In late August 2018, Barnwell acquired interests in a significant conventional oil property located in the Twining area of Alberta, Canada for \$10,362,000. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition. This was a strategic purchase by the Company of what is now its largest oil property. Since closing, Barnwell's net production from Twining has remained steady at an average of approximately 450 Boe per day.

Sale of interest in leasehold land

Kaupulehu Developments is entitled to receive a percentage of the gross receipts from the sales of lots in Increment I from KD I and the sales of lots and/or residential units in Increment II from KD II. Kaupulehu Developments is also entitled to receive 50% of distributions otherwise payable from KD II to its members up to \$8,000,000, of which \$3,500,000 was received to date. KD I and KD II are land development partnerships in which Barnwell holds an indirect 19.6% non-controlling ownership interest accounted for under the equity method of investment. The percentage of sales payments and percentage of distribution payments are part of transactions which took place in 2004 and 2006 where Kaupulehu Developments sold its leasehold interests in Increment I and Increment II to KD I's and KD II's predecessors in interest, respectively, which was prior to Barnwell's affiliation with KD I and KD II which commenced on November 27, 2013, the acquisition date of our ownership interest in the Kukio Resort Land Development Partnerships.

The following table summarizes the Increment I and Increment II revenues from KD I and KD II and the amount of fees directly related to such revenues:

| | Year ended September 30, | |
|--|-----------------------------|-------------|
| | 2018 | 2017 |
| Sale of interest in leasehold land: | | |
| Revenues - sale of interest in leasehold land | \$1,645,000 | \$4,503,000 |
| Fees - included in general and administrative expenses | (216,000) | (648,000) |
| Sale of interest in leasehold land, net of fees | \$1,429,000 | \$3,855,000 |

Kaupulehu Developments is obligated to pay a 10.4% to 11.6% fee to unrelated third parties on its revenues.

During the year ended September 30, 2018, Barnwell received \$645,000 in percentage of sales payments from KD I from the sale of three single-family lots within Phase II of Increment I, and \$1,000,000 from KD II which represented an amount equal to 50% of the distributions otherwise payable from KD II to its members after the members of KD II received distributions equal to the original basis of capital invested in the project, up to \$8,000,000. The amount and timing of any such future receipts by Kaupulehu Developments cannot be determined at this time as distributions by KD II are solely at the discretion of KD II's managing partner, who holds the controlling interest in KD II, and as future distributions are also dependent upon KD II's future results of operations.

During the year ended September 30, 2017, Barnwell received \$2,003,000 in percentage of sales payments from KD I and KD II from the sale of the second of two large ocean front lots within Increment II and the sale of two single-family lots in Phase II of Increment I, as well as \$2,500,000 from KD II representing an amount equal to 50% of the distributions otherwise payable from KD II to its members after the members of KD II received distributions equal to the original basis of capital invested in the project.

As of September 30, 2018, 20 single-family lots, of the 80 lots developed within Increment I, remained to be sold. The current remaining acreage within Increment II is not yet under development. It is uncertain when or if KD II will develop the other areas of Increment II, and there is no assurance with regards to the amounts of future sales from Increments I and II.

Contract drilling

Contract drilling revenues and costs are associated with well drilling and water pump installation, replacement and repair in Hawaii.

Contract drilling revenues decreased \$169,000 (4%) to \$3,769,000 in fiscal 2018, as compared to \$3,938,000 in fiscal 2017, and contract drilling costs increased \$419,000 (13%) to \$3,650,000 in fiscal 2018, as compared to \$3,231,000 in fiscal 2017. The contract drilling segment generated a \$104,000 operating loss before general and administrative expenses during fiscal 2018, a decrease in operating results of \$541,000 as compared to an operating profit before general and administrative expenses of \$437,000 in fiscal 2017. The decrease in operating results as compared to the prior year was primarily due to work on a higher value contract in the prior year for the plugging and abandonment of two geothermal wells, partially offset by prior year losses on certain water well drilling contracts due to unforeseen difficulties such as geological formation issues and well wall subsidences. Additionally in the current year, two water well drilling contracts had lower than anticipated operating profits due to unforeseen difficulties with unusually hard geological formations which slowed progress on those jobs.

At September 30, 2018, there was a backlog of four well drilling and seven pump installation and repair contracts, of which three well drilling and five pump installation and repair contracts were in progress as of September 30, 2018. The backlog of contract drilling revenues as of December 1, 2018 was approximately \$5,800,000, of which \$2,900,000 is expected to be realized in fiscal 2019 with the remainder to be recognized in the following fiscal year. Approximately \$2,400,000 of the backlog relates to a general contract well drilling job that for which certain subcontractor work has begun but for which more substantial work will not occur until late fiscal 2019 or early fiscal 2020.

Contract drilling revenues and costs are not seasonal in nature, but can fluctuate significantly based on the awarding and timing of contracts, which are determined by contract drilling customer demand. There has been significant volatility in demand for water well drilling contracts in recent years due largely to the impact of the recession and reduced governmental capital improvement budgets. This has generally led to increased competition for available contracts and lower margins on awarded contracts. The Company is unable to predict the near-term and long-term availability of water well drilling and pump installation and repair contracts as a result of this volatility in demand.

General and administrative expenses

General and administrative expenses decreased \$714,000 (10%) to \$6,262,000 in fiscal 2018, as compared to \$6,976,000 in fiscal 2017. The decrease was primarily due to a \$423,000 decrease in compensation costs resulting from a decrease in salaries, executive bonuses, stock appreciation rights, and retirement benefits, a \$164,000 decrease in professional fees, primarily due to fees directly related to land investment proceeds, and a \$78,000 decrease in directors' fees.

Depletion, depreciation, and amortization

Depletion, depreciation, and amortization decreased \$92,000 (8%) in fiscal 2018 as compared to fiscal 2017 primarily due to a decrease in production. This decrease was largely offset by an increase in the depletion rate for the year ended September 30, 2018. The depletion rate increased primarily due to a significant decrease in estimated natural gas reserve volumes resulting from the impact of a decline in 12-month rolling average first-day-of-the-month natural gas prices, which in turn made the future production of natural gas reserves uneconomic at certain of the Company's properties. Additionally, depreciation expense for contract drilling equipment decreased in the current year due to certain contract drilling equipment becoming fully depreciated within the current year.

Impairment of assets

During the year ended September 30, 2018, Kaupulehu 2007 recorded a \$37,000 impairment of its residential parcel held for sale as a result of the final sales price of the residential parcel.

In May 2018, the Kilauea volcano on the island of Hawaii erupted in the district of Puna on the eastern part of the island. Lava flows subsequently covered all of the approximately sixteen acres of land in the district of Puna that Barnwell owned. As a result, Barnwell wrote off the entire \$165,000 carrying value of the sixteen acres during the year ended September 30, 2018.

Under the full cost method of accounting, the Company performs quarterly oil and natural gas ceiling test calculations. There were no reductions to the carrying value of its oil and natural gas properties for either 2018 or 2017.

Based on 12-month rolling average first-day-of-the-month prices through December 2018, it is reasonably possible that we will incur a ceiling test impairment in the Company's first quarter of fiscal 2019 ending December 31, 2018. The Company is currently unable to estimate a range of the amount of any potential future reduction in carrying value as variables that impact the ceiling limitation are dependent upon actual results of activity through the end of December 2018.

Gain on sales of assets

As a result of the significant impact the sale of Red Earth had on the relationship between capitalized costs and proved reserves of the sold property and retained properties, Barnwell did not credit the sales proceeds to the full cost pool, but instead calculated a gain on the sale of Red Earth of \$2,140,000 which was recognized in the year ended September 30, 2018, in accordance with the guidance in Rule 4-10(c)(6)(i) of Regulation S-X of the rules and regulations of the SEC. Refer to the "Oil and Natural Gas Properties" section below for further information.

Also included in gain on sales of assets for the year ended September 30, 2018 is a \$115,000 gain on the sale of Barnwell's interest in natural gas transmission lines and related surface facilities in the Stolberg area of Alberta, Canada.

During the year ended September 30, 2017, the Company's New York office was sold for approximately \$2,360,000, net of related costs, resulting in a gain of \$527,000.

Equity in income of affiliates

Barnwell's investment in the Kukio Resort Land Development Partnerships is accounted for using the equity method of accounting. Barnwell was allocated partnership income of \$223,000 in fiscal 2018, as compared to \$2,276,000 in fiscal 2017. The decrease in the allocated partnership income is primarily due to the Kukio Resort Land Development Partnerships' sale of the second of two large ocean front parcels in Kaupulehu Increment II for \$20,975,000 in the prior year, whereas there was no such large ocean front parcel sale in the current year.

During the year ended September 30, 2018, Barnwell received net cash distributions in the amount of \$735,000 from the Kukio Resort Land Development Partnerships after distributing \$89,000 to non-controlling interests. During the year ended September 30, 2017, Barnwell received net cash distributions in the amount of \$3,223,000 from the Kukio Resort Land Development Partnerships after distributing \$396,000 to non-controlling interests.

Barnwell has the right to receive distributions from its non-controlling interest in KKM in proportion to its partner capital sharing ratio of 34.45%. Barnwell is entitled to a 100% preferred return up to \$1,000,000 from KKM on any allocated equity in income of the Kukio Resort Land Development Partnerships for cumulative distributions to all of its partners in excess of \$45,000,000 from those partnerships. As described in Note 17 in the accompanying "Notes to the Consolidated Financial Statements," in October 2018, cumulative distributions from the Kukio Resort Land Development Partnerships totaled \$45,000,000. Because we have no control over the distributions from the Kukio Resort Land Development Partnerships and the ability of the Kukio Resort Land Development Partnerships to make such distributions is dependent upon their future sales of lots, we have not recorded any estimated potential preferred return from KKM in our equity in income to date. However, if sufficient distributions are made by the Kukio Resort Land Development Partnerships in the future, Barnwell will have equity in income of affiliates for the recognition of the preferred return. There is no assurance that any future distributions and resulting preferred returns will occur.

Income taxes

The components of (loss) earnings before income taxes, after adjusting the (loss) earnings for non-controlling interests, are as follows:

| | Year ended September 30, | |
|---------------|--------------------------|-------------|
| | 2018 | 2017 |
| United States | \$(2,449,000) | \$1,522,000 |
| Canada | 78,000 | (1,431,000) |
| | \$(2,371,000) | \$91,000 |

Barnwell's effective consolidated income tax rate for fiscal 2018, after adjusting (loss) earnings before income taxes for non-controlling interests, was 25%, as compared to (1,187)% for fiscal 2017.

Consolidated taxes do not bear a customary relationship to pretax results due primarily to the fact that the Company is taxed separately in Canada based on Canadian source operations and in the U.S. based on consolidated operations, and essentially all deferred tax assets, net of relevant offsetting deferred tax liabilities and any amounts estimated to be realizable through tax carryback strategies, are not estimated to have a future benefit as tax credits or deductions.

Income from our non-controlling interest in the Kukio

Resort Land Development Partnerships is treated as non-unitary for state of Hawaii unitary filing purposes, thus unitary Hawaii losses provide limited sheltering of such non-unitary income.

The Tax Cuts and Jobs Act ("TCJA") was enacted on December 22, 2017. The TCJA includes various changes to the tax law, including a permanent reduction in the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018 and a repeal of the corporate alternative minimum tax ("AMT"). The Company's U.S. federal statutory rate for the fiscal year ended September 30, 2018 is a blended rate of 24.5%, based on a fiscal year blended rate calculation of pre- and post-TJCA rates, and will be 21% for future fiscal years. There was no consolidated financial statement impact of the TCJA's reduction in the U.S. statutory tax rate for the year ended September 30, 2018 as the Company has a full valuation allowance on its net deferred tax assets under U.S. federal tax law. The repeal of the corporate AMT provides a mechanism for the refund over time of any unused AMT credit carryovers. Prior to the enactment of the TCJA, it was not more likely than not that the Company's AMT credit carryovers would provide a future benefit, as such the AMT deferred tax asset had a full valuation allowance. As a result of the new TCJA provision for refundability of the AMT, the Company recorded a current income tax benefit of \$429,000, net of an estimated sequestration provision, in the year ended September 30, 2018.

We believe our assessment of the estimated impacts of the TCJA is complete based on the information available to date. However, the TCJA makes broad and complex changes to the U.S. tax code and is subject to interpretation until additional guidance is issued by taxation and financial reporting authorities. The ultimate impact of the TCJA may differ from our estimates due to changes in the interpretations and assumptions we used and changes in any future regulatory guidance.

The Canadian current income tax benefit for the year ended September 30, 2017 includes a \$369,000 benefit from the lapsing of the statute of limitations on a previously accrued uncertain tax position. There was no such benefit in the year ended September 30, 2018.

Net earnings attributable to non-controlling interests

Earnings attributable to non-controlling interests represent the non-controlling interests' share of revenues and expenses related to the various partnerships and joint ventures in which Barnwell has controlling interests and consolidates.

Net earnings attributable to non-controlling interests totaled \$352,000 in fiscal 2018, as compared to \$1,143,000 in fiscal 2017. The \$791,000 (69%) decrease is primarily due to non-controlling interest's portion of Kaupulehu Developments' higher revenues in the prior year as compared to the current year.

Inflation

The effect of inflation on Barnwell has generally been to increase its cost of operations, general and administrative costs and direct costs associated with oil and natural gas production and contract drilling operations. Oil and natural gas prices realized by Barnwell are essentially determined by world prices for oil and western Canadian/Midwestern U.S. prices for natural gas.

Impact of Recently Issued Accounting Standards on Future Filings

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods

or services to customers. Note 1 in the “Notes to Consolidated Financial Statements” describes the impact of Topic 606 in further detail.

In February 2016, the FASB issued ASU No. 2016-02, “Leases,” which seeks to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and by disclosing key information about leasing arrangements. Note 1 in the “Notes to Consolidated Financial Statements” describes the impact of ASU No. 2016-02 in further detail.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities," which provides guidance for the recognition, measurement, presentation, and disclosure of financial assets and liabilities. The amendment is effective for annual reporting periods beginning after December 15, 2018 and interim periods within those annual periods. The adoption of this update is not expected to have a material impact on Barnwell’s consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, “Classification of Certain Cash Receipts and Cash Payments,” which addresses the classification of certain specific cash flow issues including debt prepayment or extinguishment costs, settlement of certain debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of certain insurance claims and distributions received from equity method investees. The guidance is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. Early adoption is permitted, provided that all of the amendments are adopted in the same period. The adoption of this update is not expected to have a material impact on Barnwell’s consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, “Intra-Entity Transfers of Assets Other Than Inventory,” which provides guidance on recognition of current income tax consequences for intra-entity asset transfers (other than inventory) at the time of transfer. This represents a change from current GAAP, where the consolidated tax consequences of intra-entity asset transfers are deferred until the transferred asset is sold to a third party or otherwise recovered through use. The guidance is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. Early adoption at the beginning of an annual period is permitted. The adoption of this update is not expected to have a material impact on Barnwell’s consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows - Restricted Cash," which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. Thus, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and the end-of-period total amounts set forth on the statement of cash flows. This ASU is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. The amendments should be applied using a retrospective transition method to each period presented. The adoption of this update will impact the presentation of the cash flow statements if Barnwell has restricted cash at the time of adoption.

In February 2017, the FASB issued ASU No. 2017-05, “Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets,” which clarifies the scope of Subtopic 610-20 and adds guidance for partial sales of nonfinancial assets. ASU No. 2017-05 is effective at the same time as the revenue standard in ASU No. 2014-09, “Revenue from Contracts with Customers” goes into effect, which is annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. The adoption of this update is not expected to have a material impact on Barnwell’s consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," which requires employers to report the service cost component separate from the other components of net pension benefit costs. The changes to the standard require employers to report the service cost component in the same line item as other compensation costs arising from services rendered by employees during the reporting period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside the subtotal of income from operations, if one is presented. If a separate line item is not used, the line item used in the income statement must be disclosed. This ASU is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those annual periods. The adoption of this update will impact the presentation and disclosure of net pension benefit costs.

In May 2017, the FASB issued ASU No. 2017-09, "Stock Compensation - Scope of Modification Accounting," which provides clarification on when modification accounting should be used for changes to the terms or conditions of a share-based payment award. This ASU is effective for annual reporting periods beginning after December 15, 2017 and interim period within those annual periods, with early adoption permitted. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, "Reclassification of Certain Tax Effects From Accumulated Other Comprehensive Income," which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from TCJA. This ASU is effective for annual reporting periods beginning after December 15, 2018 and interim periods within those annual periods, with early adoption permitted. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

In July 2018, the FASB issued ASU No. 2018-09, "Codification Improvements," which provides further clarification to the codification literature. The transition and effective date guidance is based on the facts and circumstances of each amendment within the ASU. Some of the amendments in the ASU do not require transition guidance and will be effective upon issuance of the ASU. Other amendments have transition guidance with effective dates for annual reporting periods beginning after December 15, 2018. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, "Fair Value Measurement: Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement," which provides changes to certain fair value disclosure requirements. This ASU is effective for annual reporting periods beginning after December 15, 2019 and interim periods within those annual periods, with early adoption permitted. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-14, "Compensation - Retirement Benefits-Defined Benefit Plans - General: Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans," which provides changes to certain pension and postretirement plan disclosures. This ASU is effective for annual reporting periods ending after December 15, 2020, with early adoption permitted. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

In October 2018, the FASB issued ASU No. 2018-17, "Consolidation: Targeted Improvements to Related Party Guidance for Variable Interest Entities," which modifies the guidance related to indirect interests held through related parties under common control for determining whether fees paid to decision makers and service providers are variable interest. This ASU is effective for annual reporting periods beginning after

December 15, 2019 and interim periods within those annual periods, with early adoption permitted. The adoption of this update is not expected to have a material impact on Barnwell's consolidated financial statements.

Liquidity and Capital Resources

Barnwell's primary sources of liquidity are cash on hand, short-term investments, oil and natural gas cash flow generated by operations, and land investment segment proceeds. At September 30, 2018, Barnwell had \$8,453,000 in working capital.

Cash Flows

Cash flows used by operating activities totaled \$5,091,000 for fiscal 2018, as compared to cash flows used by operating activities of \$2,119,000 for the same period in fiscal 2017. This \$2,972,000 decrease in operating cash flows was primarily due to a \$2,061,000 decrease in distribution of income received from the Kukio Resort Land Development Partnerships from the prior year, with the remaining decrease being attributable to changes in working capital.

Net cash used in investing activities totaled \$3,884,000 for fiscal 2018, as compared to net cash provided by investing activities of \$2,911,000 for fiscal 2017. The \$6,795,000 decrease in investing cash flows was primarily due to the purchase of oil and natural gas properties in the Twining area for \$10,362,000. Also contributing to the decrease was a \$734,000 decrease in the distribution of capital received from the Kukio Resort Land Development Partnerships received in the current year as compared to the prior year and a \$3,091,000 decrease in proceeds from sale of leasehold land interests, net of commissions paid, in the current year compared to the prior year. In addition, cash flows from the sale of assets decreased by \$2,131,000 primarily related to the sale of the New York office in the prior year. These items were partially offset by an increase of \$8,085,000 related to \$3,672,000 in net maturities of certificates of deposit in the current year compared to \$4,413,000 in net purchases of certificates of deposit in the prior year, and an increase of \$1,000,000 in net proceeds from the sale of an investment in a residential parcel in the current year, whereas there was no such sale in the prior year.

Cash flows used in financing activities totaled \$1,070,000 for fiscal 2018, as compared to \$370,000 for fiscal 2017. The \$700,000 decrease in financing cash flows was primarily due to an increase of \$322,000 of distributions to non-controlling interests in the current year compared to the prior year, and a \$372,000 release of restricted cash in the prior year.

Oil and Natural Gas Capital Expenditures and Acquisitions

Barnwell's oil and natural gas capital expenditures, including accrued capital expenditures and acquisitions of oil and natural gas properties and excluding additions and revisions to estimated asset retirement obligations, increased \$10,041,000 from \$849,000 in fiscal 2017 to \$10,890,000 in fiscal 2018. Of the \$10,890,000 of total oil and natural gas properties investments for fiscal 2018, \$10,362,000 was for the acquisition of working interests in an oil and natural gas property in the Twining area. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition.

Barnwell estimates that investments in oil and natural gas properties for fiscal 2019, will be approximately \$2,700,000. This estimated amount may increase or decrease as dictated by cash flows and management's assessment of the oil and natural gas environment and prospects.

Oil and Natural Gas Properties

2018 Acquisition

On August 28, 2018, Barnwell completed the acquisition of interests in oil and natural gas properties located in the Twining area of Alberta, Canada from an independent third party. The purchase price per the agreement was \$10,362,000, which took into account customary purchase price adjustments to reflect the economic activity from the effective date of July 1, 2018 to the closing date. The final determination of the customary adjustments to the purchase price has not yet been made, however it is not expected to result in a material adjustment. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition. The Twining acquisition was accounted for as an asset acquisition as substantially all of the fair value of the gross assets acquired were concentrated in a group of similar identifiable assets, that being working interests in proved oil and natural gas properties with appurtenant reserves, with no material continuing employees, contracts or other assets of Twining acquired as part of the acquisition.

2018 Dispositions

In February 2018, Barnwell sold its oil properties located in the Red Earth area of Alberta, Canada to two separate independent third parties. The sales prices per the agreements were adjusted for customary purchase price adjustments to reflect the economic activity from the effective date of October 1, 2017 to the closing date, for a combined adjusted sales price of \$1,367,000. Barnwell recorded a gain on the sale of Red Earth of \$2,140,000 in fiscal 2018, which included asset retirement obligations of \$1,666,000 assumed by the purchaser. From Barnwell's net proceeds, \$752,000 was withheld and remitted by the buyer to the Canada Revenue Agency for potential amounts due to Barnwell's Canadian income taxes. Net oil production from these properties was approximately 23,000 Bbls, or approximately 16% of total net production, for the year ended September 30, 2017. As of September 30, 2017, estimated net proved oil reserves volumes associated with these properties was 104,000 Bbls, or approximately 11% of the total reserve volumes on a Boe basis at that date.

During the year ended September 30, 2018, Barnwell also sold its interests in natural gas transmission lines and related surface facilities in the Stolberg area of Alberta, Canada, for \$118,000, and we recognized a \$115,000 gain on the sale.

Barnwell also sold miscellaneous other oil and natural gas properties for \$221,000 during the year ended September 30, 2018, of which \$106,000 was withheld and remitted by the buyers to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sales. No gain or loss was recognized related to these dispositions as these sales to multiple counterparties in unrelated transactions did not individually, or in aggregate, result in a significant alteration of the relationship between capitalized costs and proved reserves.

2017 Acquisition

On September 27, 2017, Barnwell completed the acquisition of additional working interests in oil and natural gas properties located in the Spirit River area of Alberta, Canada for cash consideration of \$381,000.

2017 Dispositions

In June 2017, Barnwell entered into a Purchase and Sale Agreement with an independent third party and sold a portion of its oil and natural gas properties located in the Progress and Valhalla areas of Alberta, Canada. The sales price per the agreement was adjusted to \$1,076,000 for customary purchase price adjustments to reflect the economic activity from the effective date of April 1, 2017 to the closing date. The final determination of the customary adjustments to the purchase price has not yet been made however it is not expected to result in a material adjustment. From Barnwell's net proceeds, \$593,000 was withheld and remitted by the buyer to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sale. Net oil and natural gas production from this property was approximately 11,000 Boe, or approximately 7% of total net oil and natural gas production, for the year ended September 30, 2016. As of September 30, 2016, estimated net proved oil and natural gas reserve volumes associated with these properties was 95,000 Boe, or approximately 14% of the total reserve volumes at that date.

During the year ended September 30, 2017, Barnwell also sold miscellaneous oil and natural gas properties for proceeds of \$208,000, of which \$72,000 was withheld and remitted by the buyer to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sales.

In accordance with full cost method rules, property sales are credited to the full cost pool, with no gain or loss recognized, unless such a sale would significantly alter the relationship between capitalized costs and the proved reserves attributable to these costs. No gain or loss was recognized in fiscal 2017 as these sales to multiple counterparties in unrelated transactions did not individually, or in aggregate, result in a significant alteration of the relationship between capitalized costs and proved reserves.

Asset Retirement Obligation

In July 2014, the Alberta Energy Regulator introduced an Inactive Well Compliance Program which resulted in the acceleration of expenditures to suspend and/or abandon long-term inactive wells. Under the program all inactive wells that were noncompliant as of April 1, 2015 need to be brought into compliance by the operator within five years, in increments of not less than 20 percent per year. The impact of this program was incorporated into Barnwell's estimate of its asset retirement obligations beginning in fiscal 2014. At September 30, 2018, the current portion of the asset retirement obligation was \$444,000.

Contractual Obligations

Disclosure is not required as Barnwell qualifies as a smaller reporting company.

Contingencies

Environmental Matters

Because of the inherent uncertainties associated with environmental assessment and remediation activities, future expenses to remediate sites identified in the future, if any, could be incurred. Barnwell's management is not currently aware of any significant environmental contingent liabilities requiring disclosure or accrual.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Disclosure is not required as Barnwell qualifies as a smaller reporting company.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Barnwell Industries, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Barnwell Industries, Inc. and subsidiaries (the Company) as of September 30, 2018 and 2017, the related consolidated statements of operations, comprehensive (loss) income, equity, and cash flows for the years then ended, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2018 and 2017, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 1990.
Honolulu, Hawaii
December 19, 2018

BARNWELL INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

| | September 30, | |
|---|---------------|--------------|
| | 2018 | 2017 |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | \$5,965,000 | \$16,281,000 |
| Certificates of deposit | 741,000 | 4,413,000 |
| Accounts and other receivables, net of allowance for doubtful accounts | 1,965,000 | 1,414,000 |
| Income taxes receivable | 2,461,000 | 1,145,000 |
| Investment held for sale | — | 1,037,000 |
| Other current assets | 950,000 | 852,000 |
| Total current assets | 12,082,000 | 25,142,000 |
| Income taxes receivable, net of current portion | 429,000 | — |
| Deferred income tax assets | — | 300,000 |
| Asset for retirement benefits | 848,000 | — |
| Investments | 1,608,000 | 2,209,000 |
| Property and equipment, net | 16,411,000 | 5,369,000 |
| Total assets | \$31,378,000 | \$33,020,000 |
| LIABILITIES AND EQUITY | | |
| Current liabilities: | | |
| Accounts payable | \$1,191,000 | \$1,185,000 |
| Accrued capital expenditures | 232,000 | 348,000 |
| Accrued compensation | 568,000 | 390,000 |
| Accrued operating and other expenses | 1,140,000 | 1,386,000 |
| Current portion of asset retirement obligation | 444,000 | 1,231,000 |
| Other current liabilities | 54,000 | 258,000 |
| Total current liabilities | 3,629,000 | 4,798,000 |
| Deferred rent | 107,000 | 21,000 |
| Liability for retirement benefits | 4,410,000 | 4,150,000 |
| Asset retirement obligation | 6,678,000 | 5,632,000 |
| Deferred income tax liabilities | 315,000 | 236,000 |
| Total liabilities | 15,139,000 | 14,837,000 |
| Commitments and contingencies (Note 14) | | |
| Equity: | | |
| Common stock, par value \$0.50 per share; authorized, 20,000,000 shares: 8,445,060 issued at September 30, 2018 and 2017 | 4,223,000 | 4,223,000 |
| Additional paid-in capital | 1,350,000 | 1,350,000 |
| Retained earnings | 13,253,000 | 15,023,000 |
| Accumulated other comprehensive loss, net | (514,000) | (1,058,000) |
| Treasury stock, at cost: 167,900 shares at September 30, 2018 and 2017 | (2,286,000) | (2,286,000) |
| Total stockholders' equity | 16,026,000 | 17,252,000 |
| Non-controlling interests | 213,000 | 931,000 |
| Total equity | 16,239,000 | 18,183,000 |
| Total liabilities and equity | \$31,378,000 | \$33,020,000 |
| See Notes to Consolidated Financial Statements | | |

BARNWELL INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

| | Year ended September 30, | |
|---|--------------------------|--------------|
| | 2018 | 2017 |
| Revenues: | | |
| Oil and natural gas | \$3,706,000 | \$4,383,000 |
| Contract drilling | 3,769,000 | 3,938,000 |
| Sale of interest in leasehold land | 1,645,000 | 4,503,000 |
| Gas processing and other | 248,000 | 206,000 |
| | 9,368,000 | 13,030,000 |
| Costs and expenses: | | |
| Oil and natural gas operating | 2,633,000 | 3,028,000 |
| Contract drilling operating | 3,650,000 | 3,231,000 |
| General and administrative | 6,262,000 | 6,976,000 |
| Depletion, depreciation, and amortization | 1,111,000 | 1,203,000 |
| Impairment of assets | 202,000 | 155,000 |
| Gain on sales of assets | (2,255,000) | (527,000) |
| Interest expense | 7,000 | 6,000 |
| | 11,610,000 | 14,072,000 |
| Loss before equity in income of affiliates and income taxes | (2,242,000) | (1,042,000) |
| Equity in income of affiliates | 223,000 | 2,276,000 |
| (Loss) earnings before income taxes | (2,019,000) | 1,234,000 |
| Income tax benefit | (601,000) | (1,080,000) |
| Net (loss) earnings | (1,418,000) | 2,314,000 |
| Less: Net earnings attributable to non-controlling interests | 352,000 | 1,143,000 |
| Net (loss) earnings attributable to Barnwell Industries, Inc. stockholders | \$(1,770,000) | \$1,171,000 |
| Basic net (loss) earnings per common share attributable to Barnwell Industries, Inc. stockholders | \$(0.21) | \$0.14 |
| Diluted net (loss) earnings per common share attributable to Barnwell Industries, Inc. stockholders | \$(0.21) | \$0.14 |
| Weighted-average number of common shares outstanding: | | |
| Basic | 8,277,160 | 8,277,160 |
| Diluted | 8,277,160 | 8,277,160 |
| See Notes to Consolidated Financial Statements | | |

BARNWELL INDUSTRIES, INC. AND SUBSIDIARIES
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

| | Year ended September 30, | |
|--|-----------------------------|-------------|
| | 2018 | 2017 |
| Net (loss) earnings | \$(1,418,000) | \$2,314,000 |
| Other comprehensive income: | | |
| Foreign currency translation adjustments, net of taxes of \$0 | (128,000) | 147,000 |
| Retirement plans: | | |
| Amortization of accumulated other comprehensive loss into net periodic benefit cost, net of taxes of \$0 | 124,000 | 326,000 |
| Net actuarial gains arising during the period, net of taxes of \$0 | 548,000 | 2,389,000 |
| Total other comprehensive income | 544,000 | 2,862,000 |
| Total comprehensive (loss) income | (874,000) | 5,176,000 |
| Less: Comprehensive income attributable to non-controlling interests | 352,000 | 1,143,000 |
| Comprehensive (loss) income attributable to Barnwell Industries, Inc. | \$(1,226,000) | \$4,033,000 |
| See Notes to Consolidated Financial Statements | | |

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BARNWELL INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

Years ended September 30, 2018 and 2017

| | Shares Outstanding | Common Stock | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | Treasury Stock | Non-controlling Interests | Total Equity |
|---|-----------------------|-----------------|----------------------------------|----------------------|--|-------------------|------------------------------|-----------------|
| Balance at September 30, 2016 | 8,277,160 | \$4,223,000 | \$1,345,000 | \$13,852,000 | \$(3,920,000) | \$(2,286,000) | \$530,000 | \$13,744,000 |
| Contributions from non-controlling interests | — | — | — | — | — | — | 6,000 | 6,000 |
| Distributions to non-controlling interests | — | — | — | — | — | — | (748,000) | (748,000) |
| Net earnings | — | — | — | 1,171,000 | — | — | 1,143,000 | 2,314,000 |
| Share-based compensation | — | — | 5,000 | — | — | — | — | 5,000 |
| Foreign currency translation adjustments, net of taxes of \$0 | — | — | — | — | 147,000 | — | — | 147,000 |
| Retirement plans: Amortization of accumulated other comprehensive loss into net periodic benefit cost, net of taxes of \$0 | — | — | — | — | 326,000 | — | — | 326,000 |
| Net actuarial gains arising during the period, net of taxes of \$0 | — | — | — | — | 2,389,000 | — | — | 2,389,000 |
| Balance at September 30, 2017 | 8,277,160 | 4,223,000 | 1,350,000 | 15,023,000 | (1,058,000) | (2,286,000) | 931,000 | 18,183,000 |
| Distributions to non-controlling interests | — | — | — | — | — | — | (1,070,000) | (1,070,000) |
| Net (loss) earnings | — | — | — | (1,770,000) | — | — | 352,000 | (1,418,000) |
| Foreign currency | — | — | — | — | (128,000) | — | — | (128,000) |

| | | | | | | | | |
|---|-----------|-------------|-------------|--------------|-------------|---------------|-----------|--------------|
| translation adjustments, net of taxes of \$0 | | | | | | | | |
| Retirement plans: Amortization of accumulated other comprehensive loss into net periodic benefit cost, net of taxes of \$0 | — | — | — | — | 124,000 | — | — | 124,000 |
| Net actuarial gains arising during the period, net of taxes of \$0 | — | — | — | — | 548,000 | — | — | 548,000 |
| Balance at September 30, 2018 | 8,277,160 | \$4,223,000 | \$1,350,000 | \$13,253,000 | \$(514,000) | \$(2,286,000) | \$213,000 | \$16,239,000 |

See Notes to Consolidated Financial Statements

BARNWELL INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

| | Year ended September 30, | |
|--|--------------------------|--------------|
| | 2018 | 2017 |
| Cash flows from operating activities: | | |
| Net (loss) earnings | \$(1,418,000) | \$2,314,000 |
| Adjustments to reconcile net (loss) earnings to net cash used in operating activities: | | |
| Equity in income of affiliates | (223,000) | (2,276,000) |
| Depletion, depreciation, and amortization | 1,111,000 | 1,203,000 |
| Impairment of assets | 202,000 | 155,000 |
| Gain on sale of asset | — | (527,000) |
| Gain on sale of oil and natural gas properties | (2,255,000) | — |
| Sale of interest in leasehold land, net of fees paid | (1,107,000) | (4,198,000) |
| Distributions of income from equity investees | 223,000 | 2,284,000 |
| Retirement benefits expense | 295,000 | 537,000 |
| Income tax receivable, noncurrent | (429,000) | — |
| Accretion of asset retirement obligation | 297,000 | 433,000 |
| Deferred income tax provision (benefit) | 381,000 | (268,000) |
| Asset retirement obligation payments | (624,000) | (833,000) |
| Share-based compensation (benefit) expense | (59,000) | 15,000 |
| Deferred rent liability | 86,000 | 21,000 |
| Retirement plan contributions and payments | (217,000) | (365,000) |
| Decrease from changes in current assets and liabilities | (1,354,000) | (614,000) |
| Net cash used in operating activities | (5,091,000) | (2,119,000) |
| Cash flows from investing activities: | | |
| Purchases of certificates of deposit | (3,958,000) | (7,139,000) |
| Proceeds from the maturity of certificates of deposit | 7,630,000 | 2,726,000 |
| Distributions from equity investees in excess of earnings | 601,000 | 1,335,000 |
| Proceeds from sale of interest in leasehold land, net of fees paid | 1,107,000 | 4,198,000 |
| Proceeds from the sale of assets, net of closing costs | — | 2,360,000 |
| Proceeds from sale of oil and natural gas assets | 848,000 | 619,000 |
| Proceeds from the sale of investment in residential parcel | 1,000,000 | — |
| Payments to acquire oil and natural gas properties | (10,362,000) | (381,000) |
| Capital expenditures | (750,000) | (807,000) |
| Net cash (used in) provided by investing activities | (3,884,000) | 2,911,000 |
| Cash flows from financing activities: | | |
| Decrease in restricted cash | — | 372,000 |
| Contributions from non-controlling interests | — | 6,000 |
| Distributions to non-controlling interests | (1,070,000) | (748,000) |
| Net cash used in financing activities | (1,070,000) | (370,000) |
| Effect of exchange rate changes on cash and cash equivalents | (271,000) | 309,000 |
| Net (decrease) increase in cash and cash equivalents | (10,316,000) | 731,000 |
| Cash and cash equivalents at beginning of year | 16,281,000 | 15,550,000 |
| Cash and cash equivalents at end of year | \$5,965,000 | \$16,281,000 |
| See Notes to Consolidated Financial Statements | | |

BARNWELL INDUSTRIES, INC.

AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

YEARS ENDED SEPTEMBER 30, 2018 AND 2017

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Barnwell is engaged in the following lines of business: 1) acquiring, developing, producing and selling oil and natural gas in Canada, 2) investing in land interests in Hawaii, and 3) drilling wells and installing and repairing water pumping systems in Hawaii.

Principles of Consolidation

The consolidated financial statements include the accounts of Barnwell Industries, Inc. and all majority-owned subsidiaries (collectively referred to herein as “Barnwell,” “we,” “our,” “us,” or the “Company”), including a 77.6%-owned land investment general partnership (Kaupulehu Developments), a 75%-owned land investment partnership (KD Kona 2013 LLLP) and an 80%-owned joint venture (Kaupulehu 2007, LLLP). All significant intercompany accounts and transactions have been eliminated.

Undivided interests in oil and natural gas exploration and production joint ventures are consolidated on a proportionate basis. Barnwell’s investments in both unconsolidated entities in which a significant, but less than controlling, interest is held and in VIEs in which the Company is not deemed to be the primary beneficiary are accounted for by the equity method.

Use of Estimates in the Preparation of Consolidated Financial Statements

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management of Barnwell to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results could differ significantly from those estimates. Significant assumptions are required in the valuation of deferred tax assets, asset retirement obligations, share-based payment arrangements, obligations for retirement plans, contract drilling estimated costs to complete, proved oil and natural gas reserves, and the carrying value of other assets, and such assumptions may impact the amount at which such items are recorded.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, demand deposits and short-term investments with original maturities of three months or less.

Certificates of Deposit

Certificates of deposit include certificates of deposit at various financial institutions with original maturities in excess of three months.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents, and certificates of deposit. We maintain bank account balances with high quality financial institutions which often exceed insured limits. We have not experienced any losses with these accounts and believe that we are not exposed to any significant credit risk on cash. Certificates of deposit are maintained at separate high-quality financial institutions within insured limits and are therefore not exposed to any credit risk.

Accounts and Other Receivables

Accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is Barnwell's best estimate of the amount of probable credit losses in Barnwell's existing accounts receivable and is based on historical write-off experience and the application of the specific identification method. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Barnwell does not have any off-balance sheet credit exposure related to its customers.

Investment Held for Sale

Investment held for sale is reported at the lower of the asset carrying value or fair value less costs to sell. The recorded balance is evaluated for impairment whenever events or changes in circumstances indicate that the balance may not be fully recoverable. This evaluation requires management to make assumptions and apply considerable judgments to, among others, estimates of the timing and amount of future cash flows, uncertainty about future events, including changes in economic conditions, changes in operating performance, and ongoing cost of maintenance and improvements of the assets. Changes in these and other assumptions may require impairment charges that may materially impact the Company's future operating results.

Assets are classified as held for sale if management commits to a plan to sell the property, the Company actively markets the property in its current condition for a price that is reasonable in comparison to its fair value and management considers the sale of such property within one year of the balance sheet date to be probable.

Investments in Real Estate

Barnwell accounts for sales of Increment I and Increment II leasehold land interests under the full accrual method. Gains from such sales were recognized when the buyer's investments were adequate to demonstrate a commitment to pay for the property, risks and rewards of ownership transferred to the buyer, and Barnwell did not have a substantial continuing involvement with the property sold. With regard to payments Kaupulehu Developments is entitled to receive from KD I and KD II, the percentage of sales payments from KD I and KD II and percentage of distributions from KD II are contingent future profits which will be recognized when they are realized. All costs of the sales of Increment I and Increment II leasehold land interests were recognized at the time of sale and were not deferred to future periods when any contingent profits will be recognized.

Equity Method Investments

Affiliated companies, which are limited partnerships or similar entities, in which Barnwell holds more than a 3% to 5% ownership interest and does not control, are accounted for as equity method investments.

Equity method investment adjustments include Barnwell's proportionate share of investee income or loss, adjustments to recognize certain differences between Barnwell's carrying value and Barnwell's equity in net assets of the investee at the date of investment, impairments and other adjustments required by the equity method. Gains or losses are realized when such investments are sold.

Investments in equity method investees are evaluated for impairment as events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If the carrying amounts of the assets exceed their respective fair values, additional impairment tests are performed to measure the amounts of the impairment losses, if any. When an impairment test demonstrates that the fair value of an investment is less than its carrying value, management will determine whether the impairment is either temporary or other-than-temporary. Examples of factors which may be indicative of an other-than-temporary impairment include (a) the length of time and extent to which fair value has been less than carrying value, (b) the financial condition and near-term prospects of the investee, and (c) the intent and ability to retain the investment in the investee for a period of time sufficient to allow for any anticipated recovery in fair value. If the decline in fair value is determined by management to be other-than-temporary, the carrying value of the investment is written down to its estimated fair value as of the balance sheet date of the reporting period in which the assessment is made.

Variable Interest Entities

The consolidation of VIEs is required when an enterprise has a controlling financial interest and is therefore the VIE's primary beneficiary. A controlling financial interest will have both of the following characteristics: (a) the power to direct the activities of a VIE that most significantly impact the VIE's economic performance and (b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. The determination of whether an entity is a VIE and, if so, whether the Company is primary beneficiary, may require significant judgment.

Barnwell analyzes its unconsolidated affiliates in which it has an investment to determine whether the unconsolidated entities are VIEs and, if so, whether the Company is the primary beneficiary. This analysis includes a qualitative review based on an evaluation of the design of the entity, its organizational structure, including decision making ability and financial agreements, as well as a quantitative review. Our unconsolidated affiliates that have been determined to be VIEs are accounted under the equity method because we do not have a controlling financial interest and are therefore not the VIE's primary beneficiary (see Note 6).

Oil and Natural Gas Properties

Barnwell uses the full cost method of accounting under which all costs incurred in the acquisition, exploration and development of oil and natural gas reserves, including costs related to unsuccessful wells and estimated future site restoration and abandonment, are capitalized. We capitalize internal costs that can be directly identified with our acquisition, exploration and development activities and do not include any costs related to production, general corporate overhead or similar activities.

Under the full cost method of accounting, we review the carrying value of our oil and natural gas properties, on a country-by-country basis, each quarter in what is commonly referred to as the ceiling test. Under the ceiling test, capitalized costs, net of accumulated depletion and oil and natural gas related deferred income taxes, may not exceed an amount equal to the sum of 1) the discounted present value (at 10%), using average first-day-of-the-month prices during the 12-month period ending as of the balance sheet date held

constant over the life of the reserves, of Barnwell's estimated future net cash flows from estimated production of proved oil and natural gas reserves as determined by independent petroleum reserve engineers, less estimated future expenditures to be incurred in developing and producing the proved reserves but excluding future cash outflows associated with settling asset retirement obligations with the exception of those associated with proved undeveloped reserves from wells that are to be drilled in the future; plus 2) the cost of major development projects and unproven properties not subject to depletion, if any; plus 3) the lower of cost or estimated fair value of unproven properties included in costs subject to depletion; less 4) related income tax effects. If net capitalized costs exceed this limit, the excess is expensed. Depletion is computed using the units-of-production method whereby capitalized costs, net of estimated salvage values, plus estimated future costs to develop proved reserves and satisfy asset retirement obligations, are amortized over the total estimated proved reserves on a country-by-country basis. Investments in major development projects are not depleted until either proved reserves are associated with the projects or impairment has been determined. Proceeds from the disposition of oil and natural gas properties are credited to the full cost pool, with no gain or loss recognized, unless such a sale would significantly alter the relationship between capitalized costs and the proved reserves in a particular country.

Revenues associated with the sale of oil, natural gas and natural gas liquids are recognized in the Consolidated Statements of Operations when the oil, natural gas and natural gas liquids are delivered and title has passed to the customer.

Barnwell's sales reflect its working interest share after royalties. Barnwell's production is generally delivered and sold at the plant gate. Barnwell does not have transportation volume commitments with pipelines and does not have natural gas imbalances related to natural gas balancing arrangements with its partners.

Acquisitions

In accordance with the guidance for business combinations, Barnwell determines whether an acquisition is a business combination, which requires that the assets acquired and liabilities assumed constitute a business. Each business combination is then accounted for by applying the acquisition method of accounting. If the assets acquired are not a business, the Company accounts for the transaction as an asset acquisition. Under both methods purchase prices are allocated to acquired assets and assumed liabilities based on their estimated fair value at the time of the acquisition. For transactions that are business combinations, the Company evaluates the existence of goodwill or a gain from a bargain purchase. The Company capitalizes acquisition-related costs and fees associated with asset acquisitions and immediately expenses acquisition-related costs and fees associated with business combinations.

Long-lived Assets

Long-lived assets to be held and used, other than oil and natural gas properties, are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. Recoverability is measured by comparing the carrying amount of the asset to the future net cash flows expected to result from use of the asset (undiscounted and without interest charges). If it is determined that the asset may not be recoverable, impairment loss is measured as the amount by which the carrying amount of the asset exceeds the fair value of the asset. Long-lived assets to be disposed of are reported at the lower of the asset carrying value or fair value, less cost to sell.

Water well drilling rigs, office and other property and equipment are depreciated using the straight-line method based on estimated useful lives.

Share-based Compensation

Share-based compensation cost is measured at fair value. Barnwell utilizes a closed-form valuation model to determine the fair value of each option award. Expected volatilities are based on the historical volatility of Barnwell's stock over a period consistent with that of the expected terms of the options. The expected terms of the options represent expectations of future employee exercise and are estimated based on factors such as vesting periods, contractual expiration dates, historical trends in Barnwell's stock price, and historical exercise behavior. The risk-free rates for periods within the contractual life of the options are based on the yields of U.S. Treasury instruments with terms comparable to the estimated option terms. Expected dividends are based on current and historical dividend payments.

Retirement Plans

Barnwell accounts for its defined benefit pension plan, Supplemental Employee Retirement Plan, and postretirement medical insurance benefits plan by recognizing the over-funded or under-funded status as an asset or liability in its Consolidated Balance Sheets and recognizes changes in that funded status in the year in which the changes occur through comprehensive income. See further discussion at Note 9.

The estimation of Barnwell's retirement plan obligations, costs and liabilities requires management to estimate the amount and timing of cash outflows for projected future payments and cash inflows for maturities and expected returns on plan assets. These assumptions may have an effect on the amount and timing of future contributions.

At the end of each year, Barnwell determines the discount rate to be used to calculate the present value of plan liabilities and the net periodic benefit cost. The discount rate is an estimate of the current interest rate at which the retirement plan liabilities could be effectively settled at the end of the year. In estimating this rate, Barnwell performs a cash-flow matching discount rate analysis developed using high-quality corporate bonds yield. The discount rate used to value the future benefit obligation as of each year-end is the rate used to determine the periodic benefit cost in the following year.

The expected long-term return on assets assumption for the pension plans represents the average rate of return to be earned on plan assets over the period the benefits included in the benefit obligation are to be paid. The actual fair value of plan assets and estimated rate of return is used to determine the expected investment return during the year. The estimated rate of return on plan assets is based on an estimate of future experience for plan asset returns, the mix of plan assets, current market conditions, and expectations for future market conditions. A decrease (increase) of 50 basis points in the expected return on assets assumption would increase (decrease) pension expense by approximately \$50,000 based on the assets of the plan at September 30, 2018.

The effects of changing assumptions are included in unamortized net gains and losses, which directly affect accumulated other comprehensive income. These unamortized gains and losses in excess of certain thresholds are amortized and reclassified to (loss) income over the average remaining service life of active employees.

Asset Retirement Obligation

Barnwell accounts for asset retirement obligations by recognizing the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made. Barnwell estimates the fair value of asset retirement obligations based on the projected discounted

future cash outflows required to settle abandonment and restoration liabilities. Such an estimate requires assumptions and judgments regarding the existence of liabilities, the amount and timing of cash outflows required to settle the liability, what constitutes adequate restoration, inflation factors, credit adjusted discount rates, and consideration of changes in legal, regulatory, environmental and political environments. Abandonment and restoration cost estimates are determined in conjunction with Barnwell's reserve engineers based on historical information regarding costs incurred to abandon and restore similar well sites, information regarding current market conditions and costs, and knowledge of subject well sites and properties. These assumptions represent Level 3 inputs.

Barnwell's estimated site restoration and abandonment costs of its oil and natural gas properties are capitalized as part of the carrying amount of oil and natural gas properties and depleted over the life of the related reserves. When the assumptions used to estimate a recorded asset retirement obligation change, a revision is recorded to both the asset retirement obligation and the capitalized cost of asset retirements. The liability is accreted at the end of each period through charges to oil and natural gas operating expense.

Income Taxes

Income taxes are determined using the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax impacts of differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Management evaluates its potential exposures from tax positions taken that have been or could be challenged by taxing authorities. These potential exposures result because taxing authorities may take positions that differ from those taken by management in the interpretation and application of statutes, regulations and rules. Management considers the possibility of alternative outcomes based upon past experience, previous actions by taxing authorities (e.g., actions taken in other jurisdictions) and advice from tax experts. Recognized tax positions are initially and subsequently measured as the largest amount of tax benefit that is more likely than not of being realized upon ultimate settlement with a taxing authority on a jurisdiction-by-jurisdiction basis. Liabilities for unrecognized tax benefits related to such tax positions are included in long-term liabilities unless the tax position is expected to be settled within the upcoming year, in which case the liabilities are included in current liabilities. Interest and penalties related to uncertain tax positions are included in income tax expense.

Contract Drilling

Revenues, costs and profits applicable to contract drilling contracts are included in the Consolidated Statements of Operations using the percentage of completion method, principally measured by the percentage of labor dollars incurred to date for each contract to total estimated labor dollars for each contract. Contract losses are recognized in full in the period the losses are identified. The performance of drilling contracts may extend over more than a year and, in the interim periods, estimates of total contract costs and profits are used to determine revenues and profits earned for reporting the results of contract drilling operations. Revisions in the estimates required by subsequent performance and final contract settlements are included as adjustments to the results of operations in the period such revisions and settlements occur. Contracts are normally less than a year in duration.

Environmental

Barnwell is subject to extensive environmental laws and regulations. These laws, which are constantly changing, regulate the discharge of materials into the environment and maintenance of surface conditions and may require Barnwell to remove or mitigate the environmental effects of the disposal or release of petroleum or chemical substances at various sites. Environmental expenditures are expensed or capitalized depending on their future economic benefit. Expenditures that relate to an existing condition caused by past operations and that have no future economic benefit are expensed. Liabilities for expenditures of a noncapital nature are recorded when environmental assessment and/or remediation is probable, and the costs can be reasonably estimated.

Barnwell recognizes an insurance receivable related to environmental expenditures when collection of the receivable is deemed probable. Any recognition of an insurance receivable is recorded by crediting and offsetting the original charge. Any differential arising between insurance recoveries and insurance receivables is expensed or capitalized, consistent with the original treatment.

Foreign Currency Translation

Assets and liabilities of foreign subsidiaries are translated at the year-end exchange rate. Operating results of foreign subsidiaries are translated at average exchange rates during the period. Translation adjustments have no effect on net income and are included in "Accumulated other comprehensive loss, net" in stockholders' equity.

Fair Value Measurements

Fair value is defined as the amount that would be received from the sale of an asset or paid for the transfer of a liability in an orderly transaction between market participants at the measurement date. Fair value measurements are classified and disclosed in one of the following categories:

Level 1: Unadjusted quoted prices in active markets for identical assets and liabilities in active markets and have the highest priority.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Unobservable inputs for the financial asset or liability and have the lowest priority.

Recently Adopted Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-07, "Simplifying the Transition to the Equity Method of Accounting," which eliminates the requirement that when an investment subsequently qualifies for use of the equity method as a result of an increase in level of ownership interest or degree of influence, an investor must adjust the investment, results of operations, and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment had been held. This ASU requires that the equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and to adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. In addition, the ASU requires that an entity that has an available-for-sale equity security that becomes qualified for the equity method of accounting

recognize through earnings the unrealized gain or loss in accumulated other comprehensive income at the date the investment becomes qualified for use of the equity method. The Company adopted the provisions of this ASU effective October 1, 2017. The adoption of this update did not have an impact on Barnwell's consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which includes provisions intended to simplify various aspects related to how share-based payments are accounted for and presented in the financial statements. The Company adopted the provisions of this ASU effective October 1, 2017. The adoption of this update did not have an impact on Barnwell's consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-17, "Interests Held through Related Parties That Are under Common Control," which modifies existing guidance with respect to how a decision maker that holds an indirect interest in a VIE through a common control party determines whether it is the primary beneficiary of the VIE as part of the analysis of whether the VIE would need to be consolidated. Under this ASU, a decision maker would need to consider only its proportionate indirect interest in the VIE held through a common control party. The Company adopted the provisions of this ASU effective October 1, 2017. The adoption of this update did not have an impact on Barnwell's consolidated financial statements.

Impact of Pending Adoption of Significant Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. This ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. Subsequent to the issuance of ASU No. 2014-09, the FASB issued additional ASUs related to this revenue guidance. In March 2016, the FASB issued ASU No. 2016-08, "Principal versus Agent Considerations," which is intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, "Identifying Performance Obligations and Licensing," which clarifies the implementation guidance on identifying performance obligations and licenses in customer contracts. In May 2016, the FASB issued ASU No. 2016-12, "Narrow-Scope Improvements and Practical Expedients," which addresses completed contracts and contract modifications at transition, noncash consideration, the presentation of sales taxes and other taxes collected from customers, and assessment of collectibility when determining whether a transaction represents a valid contract. In December 2016, the FASB issued ASU No. 2016-20, "Technical Corrections and Improvements to Topic 606," which includes thirteen technical corrections or improvements that affect only narrow aspects of the guidance in ASU No. 2014-09. ASU No. 2014-09 and all of the related ASUs (collectively, "Topic 606") have the same effective date. On July 9, 2015, the FASB deferred the effective date of Topic 606 for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. Topic 606 permits two methods of adoption: retrospectively to each prior reporting period presented, or the modified retrospective method with the cumulative effect of initially applying the guidance recognized at the date of initial application.

The adoption of Topic 606 is not expected to have a material impact on our oil and natural gas revenues and the contingent residual payments that our land investment segment receives under our contracts relating to the sale of leasehold land interests in Lot 4A. Oil and natural gas revenues will continue to be recognized at a point in time as legal title to the commodity has transferred to the customer and physical delivery at a delivery point has taken place. Land investment segment revenues will generally continue to be recognized when payment is received as it is only at that point that it is probable that a significant reversal in the amount of cumulative contingent residual revenue recognized will not occur.

Topic 606 will, however, have an impact our contract drilling segment. Depending upon the status of progress at a given point in time and the impact of items that are accounted for differently under Topic 606, revenues, associated costs and resulting gross margin may have differing outcomes as compared to prior years. Measurement of progress prior to the adoption of Topic 606 was based generally on actual labor costs incurred to total estimated labor costs for each contract. Under Topic 606, management determined that progress should be measured using total actual costs incurred to total estimated contract costs, as adjusted for items not indicative of performance, such as contract fulfillment costs, uninstalled materials, and rework costs. While Topic 606's adjustments for items such as uninstalled materials may result in progress that approximates the recognition of gross margin over time under our previous labor-to-labor method of progress, recognition of any significant rework costs under Topic 606 will change how gross margin is recognized over time as compared to prior years. Additionally, Topic 606's treatment of uninstalled materials will change the timing of recognition of costs and an equivalent amount of revenues related to such uninstalled materials, although gross margin would not be affected by the timing of recognition of uninstalled materials. As such, the adoption of Topic 606 may result in different outcomes at a given point in time as compared to prior years.

Based on our analysis, we expect that adoption of Topic 606 on October 1, 2018 under the modified retrospective approach will result in an immaterial cumulative-effect adjustment to opening retained earnings, and various reclassifications will occur to construction contract-related assets and liabilities. Topic 606 will also result in expanded disclosures for all our business segments. We do not believe the impact of Topic 606 will be material to the consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases," which seeks to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and by disclosing key information about leasing arrangements. In general, a right-of-use asset and lease obligation will be recorded for leases exceeding a twelve-month term whether operating or financing, while the income statement will reflect lease expense for operating leases and amortization/interest expense for financing leases. The balance sheet amount recorded for existing leases at the date of adoption must be calculated using the applicable incremental borrowing rate at the date of adoption. Subsequent to the issuance of ASU No. 2016-02, the FASB issued ASU No. 2018-01, "Land Easement Practical Expedient for Transition to Topic 842," which provides an optional transition practical expedient to not evaluate existing or expired land easements under the new lease standard, ASU No. 2018-10, "Clarifying Pre-Effective Amendments to the Forthcoming Lease Accounting Rules," which provides further clarification on certain guidance within ASU No. 2016-02, "Leases", and ASU No. 2018-11, "Leases (Topic 842) - Targeted Improvements," which allows for a transitional method of adopting the new lease standard. These ASUs are effective for annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods, and allow for the use of either a full retrospective approach for all periods presented in the period of adoption, or a modified retrospective transition approach. Barnwell is currently evaluating the effect that the adoption of this update will have on the consolidated financial statements.

2. (LOSS) EARNINGS PER COMMON SHARE

Basic (loss) earnings per share is computed using the weighted-average number of common shares outstanding for the period. Diluted (loss) earnings per share is calculated using the treasury stock method to reflect the assumed issuance of common shares for all potentially dilutive securities, which consist of outstanding stock options. Potentially dilutive shares are excluded from the computation of diluted (loss) earnings per share if their effect is anti-dilutive.

Options to purchase 318,750 and 593,750 shares of common stock were excluded from the computation of diluted shares for the years ended September 30, 2018 and 2017, respectively, as their inclusion would have been antidilutive.

Reconciliations between net (loss) earnings attributable to Barnwell stockholders and common shares outstanding of the basic and diluted net (loss) earnings per share computations are detailed in the following tables:

| | Year ended September 30, 2018 | | |
|--|-------------------------------|-------------------------|---------------------|
| | Net Loss (Numerator) | Shares (Denominator) | Per-Share Amount |
| Basic net loss per share | \$(1,770,000) | 8,277,160 | \$ (0.21) |
| Effect of dilutive securities - common stock options | — | — | |
| Diluted net loss per share | \$(1,770,000) | 8,277,160 | \$ (0.21) |

| | Year ended September 30, 2017 | | |
|--|-------------------------------|-------------------------|---------------------|
| | Net Earnings (Numerator) | Shares (Denominator) | Per-Share Amount |
| Basic net earnings per share | \$1,171,000 | 8,277,160 | \$ 0.14 |
| Effect of dilutive securities - common stock options | — | — | |
| Diluted net earnings per share | \$1,171,000 | 8,277,160 | \$ 0.14 |

3. SHARE-BASED PAYMENTS

The Company's share-based compensation (benefit) expense and related income tax effects are as follows:

| | Year ended | |
|-------------------------------|-----------------------|----------|
| | September 30, 2018 | 2017 |
| Share-based (benefit) expense | \$(59,000) | \$15,000 |
| Income tax effect | \$— | \$— |

Share-based compensation (benefit) expense recognized in (loss) earnings for the years ended September 30, 2018 and 2017 are reflected in "General and administrative" expenses in the Consolidated Statements of Operations. There was no impact on income taxes for the years ended September 30, 2018 and 2017 due to a full valuation allowance on the related deferred tax asset. As of September 30, 2018, there was no unrecognized compensation cost related to nonvested share options.

Description of Share-Based Payment Arrangements

The Company's stock option plans are administered by the Compensation Committee of the Board of Directors.

2008 Equity Incentive Plan: Under the stockholder-approved 2008 Stock Option Plan (the "2008 Plan"), Barnwell was authorized to grant up to 800,000 shares of common stock to employees. A total of 737,500 share options were granted under this plan; as the 2008 Plan has reached its tenth anniversary, option shares are no longer available for grant. Stock options grants included nonqualified stock options that had exercise prices equal to Barnwell's stock price on the date of grant, vested annually over a service period of four years commencing one year from the date of grant and expired ten years from the date of grant. Certain options have stock appreciation rights that permitted the holder to receive stock, cash or a combination thereof equal to the amount by which the fair market value, at the time of exercise of the option, exceeded the option price.

2018 Equity Incentive Plan: The stockholder-approved 2018 Equity Incentive Plan provides for the issuance of incentive stock options, nonstatutory stock options, stock options with stock appreciation rights, restricted stock, restricted stock units and performance units, qualified performance-based awards, and stock grants to employees, consultants and non-employee members of the Board of Directors. 800,000 shares of Barnwell common stock have been reserved for issuance and as of September 30, 2018, a total of 800,000 share options remain available for grant.

Barnwell currently has a policy of issuing new shares to satisfy share option exercises when the optionee requests shares.

Equity-classified Awards

Compensation cost for equity-classified awards is measured at the grant date based on the fair value of the award and is recognized as an expense over the requisite service period.

A summary of the activity in Barnwell's equity-classified share options from October 1, 2017 through September 30, 2018 is presented below:

| Options | Shares | Weighted- Average Exercise Price | Weighted- Average Remaining Contractual Term | Aggregate Intrinsic Value |
|-----------------------------------|--------|---|---|---------------------------------|
| Outstanding at October 1, 2017 | 30,000 | \$ 3.01 | | |
| Granted | — | — | | |
| Exercised | — | — | | |
| Expired/Forfeited | — | — | | |
| Outstanding at September 30, 2018 | 30,000 | \$ 3.01 | 5.2 | \$ — |
| Exercisable at September 30, 2018 | 30,000 | \$ 3.01 | 5.2 | \$ — |

Total share-based compensation expense for equity-classified awards vested in the years ended September 30, 2018 and 2017 was \$1,000 and \$5,000, respectively.

Liability-classified Awards

Compensation cost for liability-classified awards is remeasured to current fair value using a closed-form valuation model based on current values at each period end with the change in fair value recognized as an expense or benefit until the award is settled.

The following assumptions were used in estimating fair value for all liability-classified share options outstanding:

| | Year ended September 30, | |
|-----------------------------|--------------------------|----------------|
| | 2018 | 2017 |
| Expected volatility range | 59.8% to 60.1% | 53.1% to 69.5% |
| Weighted-average volatility | 59.8% | 64.6% |
| Expected dividends | None | None |
| Expected term (in years) | 1.2 to 5.2 | 0.2 to 6.2 |
| Risk-free interest rate | 2.6% to 2.9% | 1.1% to 2.1% |
| Expected forfeitures | None | None |

The application of alternative assumptions could produce significantly different estimates of the fair value of share-based compensation, and consequently, the related costs reported in the Consolidated Statements of Operations.

A summary of the activity in Barnwell's liability-classified share options from October 1, 2017 through September 30, 2018 is presented below:

| Options | Shares | Weighted-Average Exercise Price | Weighted-Average Remaining Contractual Term | Aggregate Intrinsic Value |
|-----------------------------------|-----------|---------------------------------|---|---------------------------|
| Outstanding at October 1, 2017 | 563,750 | \$ 7.97 | | |
| Granted | — | — | | |
| Exercised | — | — | | |
| Expired/Forfeited | (275,000) | 11.95 | | |
| Outstanding at September 30, 2018 | 288,750 | \$ 4.18 | 1.6 | \$ — |
| Exercisable at September 30, 2018 | 288,750 | \$ 4.18 | 1.6 | \$ — |

The following table summarizes the components of the total share-based compensation for liability-classified awards:

| | Year ended September 30, | |
|---|--------------------------|-----------|
| | 2018 | 2017 |
| Due to vesting | \$ — | \$ 2,000 |
| Due to remeasurement | (60,000) | 8,000 |
| Total share-based compensation (benefit) expense for liability-based awards | \$ (60,000) | \$ 10,000 |

4. ACCOUNTS RECEIVABLE AND CONTRACT COSTS

Accounts receivable are net of allowances for doubtful accounts of \$42,000 and \$46,000 as of September 30, 2018 and 2017, respectively. Included in accounts receivable are contract retainage balances of \$308,000 and \$142,000 as of September 30, 2018 and 2017, respectively. The retainage balance as of September 30, 2018 is expected to be collected within one year, generally within 45 days after the related contracts have received final acceptance and approval.

Costs and estimated earnings on uncompleted contracts are as follows:

| | September 30, | |
|---|---------------|-------------|
| | 2018 | 2017 |
| Costs incurred on uncompleted contracts | \$3,266,000 | \$2,194,000 |
| Estimated earnings | 239,000 | 89,000 |
| | 3,505,000 | 2,283,000 |
| Less billings to date | 3,085,000 | 1,947,000 |
| | \$420,000 | \$336,000 |

Costs and estimated earnings on uncompleted contracts are included in the Consolidated Balance Sheets as follows:

| | September 30, | |
|---|---------------|-----------|
| | 2018 | 2017 |
| Costs and estimated earnings in excess of billings on uncompleted contracts (included in other current assets) | \$462,000 | \$376,000 |
| Billings in excess of costs and estimated earnings on uncompleted contracts (included in other current liabilities) | (42,000) | (40,000) |
| | \$420,000 | \$336,000 |

5. INVESTMENT HELD FOR SALE

During the year ended September 30, 2018, Kaupulehu 2007 sold its remaining residential lot in the Lot 4A Increment I area for net proceeds of \$1,000,000 and Kaupulehu 2007 recorded a \$37,000 impairment when the sale entered escrow.

6. INVESTMENTS

A summary of Barnwell's non-current investments is as follows:

| | September 30, | |
|--|---------------|-------------|
| | 2018 | 2017 |
| Investment in Kukio Resort Land Development Partnerships | \$1,558,000 | \$2,159,000 |
| Investment in leasehold land interest – Lot 4C | 50,000 | 50,000 |
| Total non-current investments | \$1,608,000 | \$2,209,000 |

Investment in Kukio Resort Land Development Partnerships

On November 27, 2013, Barnwell, through a wholly-owned subsidiary, entered into two limited liability limited partnerships, KD Kona and KKM Makai, and indirectly acquired a 19.6% non-controlling ownership interest in each of KD Kukio Resorts, KD Maniniowali, and KDK for \$5,140,000. These entities, collectively referred to hereinafter as the “Kukio Resort Land Development Partnerships,” own certain real estate and development rights interests in the Kukio, Maniniowali and Kaupulehu portions of Kukio Resort, a private residential community on the Kona coast of the island of Hawaii, as well as Kukio Resort's real estate sales office operations. KDK holds interests in KD Acquisition, LLLP (“KD I”) and KD Acquisition II, LP, formerly KD Acquisition II, LLLP (“KD II”). KD I is the developer of Kaupulehu Lot 4A Increment I (“Increment I”), and KD II is the developer of Kaupulehu Lot 4A Increment II (“Increment II”). Barnwell's

ownership interests in the Kukio Resort Land Development Partnerships is accounted for using the equity method of accounting. The partnerships derive income from the sale of residential parcels as well as from commissions on real estate sales by the real estate sales office.

During the year ended September 30, 2018, Barnwell received net cash distributions in the amount of \$735,000 from the Kukio Resort Land Development Partnerships after distributing \$89,000 to non-controlling interests. During the year ended September 30, 2017, Barnwell received net cash distributions in the amount of \$3,223,000 from the Kukio Resort Land Development Partnerships after distributing \$396,000 to non-controlling interests.

Equity in income of affiliates was \$223,000 and \$2,276,000 for the years ended September 30, 2018 and 2017, respectively. The equity in the underlying net assets of the Kukio Resort Land Development Partnerships exceeds the carrying value of the investment in affiliates by approximately \$314,000 as of September 30, 2018, which is attributable to differences in the value of capitalized development costs and a note receivable. The basis difference will be recognized as the partnerships sell lots and recognize the associated costs and sell memberships for the Kukio Golf and Beach Club for which the receivable relates. The basis difference adjustments of \$8,000 and \$28,000, for the years ended September 30, 2018 and 2017, respectively, increased equity in income of affiliates.

Summarized financial information for the Kukio Resort Land Development Partnerships is as follows:

| | Year ended September 30, | |
|--------------|--------------------------|--------------|
| | 2018 | 2017 |
| Revenue | \$11,362,000 | \$31,578,000 |
| Gross profit | \$5,757,000 | \$14,584,000 |
| Net earnings | \$1,815,000 | \$11,107,000 |

Sale of Interest in Leasehold Land

Kaupulehu Developments has the right to receive payments from KD I and KD II resulting from the sale of lots and/or residential units within Increment I and Increment II by KD I and KD II (see Note 16).

With respect to Increment I, Kaupulehu Developments is entitled to receive payments from KD I based on the following percentages of the gross receipts from KD I's sales of single-family residential lots in Increment I: 10% of such aggregate gross proceeds greater than \$100,000,000 up to \$300,000,000; and 14% of such aggregate gross proceeds in excess of \$300,000,000. In fiscal 2018, three single-family lots in Increment I were sold bringing the total amount of gross proceeds from single-family lot sales through September 30, 2018 to \$215,000,000. As of September 30, 2018, 20 single-family lots, of the 80 lots developed within Increment I, remained to be sold.

Under the terms of the Increment II agreement with KD II, Kaupulehu Developments is entitled to receive payments from KD II resulting from the sale of lots and/or residential units by KD II within Increment II. The payments are based on a percentage of gross receipts from KD II's sales ranging from 8% to 10% of the price of improved or unimproved lots or 2.60% to 3.25% of the price of units constructed on a lot, to be determined in the future depending upon a number of variables, including whether the lots are sold prior to improvement. Two ocean front parcels approximately two to three acres in size fronting the ocean were

developed within Increment II by KD II, of which one was sold in fiscal 2017 and one was sold in fiscal 2016. The remaining acreage within Increment II is not yet under development.

Kaupulehu Developments is also entitled to receive 50% of distributions otherwise payable from KD II to its members after the members of KD II have received distributions equal to the original basis of capital invested in the project, up to \$8,000,000. In fiscal 2017, the members of KD II received cumulative distributions equal to the original basis of capital invested in the project after which Kaupulehu Developments received \$2,500,000 from KD II representing an amount equal to 50% of the distributions KD II made to its members in September 2017, and an additional \$1,000,000 was received from KD II in June 2018 under this arrangement, for a cumulative total of \$3,500,000 received out of the \$8,000,000 maximum. The arrangement also included the rights to three single-family residential lots in Phase 2 of Increment II when developed, at no cost to Barnwell, with a commitment by Barnwell to begin to construct a residence upon each lot within six months of transfer. These lots were not yet developed as of September 30, 2018.

The following table summarizes the Increment I and Increment II revenues from KD I and KD II and the amount of fees directly related to such revenues (see Note 14 "Commitments and Contingencies - Other Matters"):

| | Year ended September | |
|--|----------------------|-------------|
| | 30, | |
| | 2018 | 2017 |
| Sale of interest in leasehold land: | | |
| Revenues - sale of interest in leasehold land | \$1,645,000 | \$4,503,000 |
| Fees - included in general and administrative expenses | (216,000) | (648,000) |
| Sale of interest in leasehold land, net of fees | \$1,429,000 | \$3,855,000 |

There is no assurance with regards to the amounts of future payments from Increment I or Increment II to be received.

Investment in Leasehold Land Interest – Lot 4C

Kaupulehu Developments holds an interest in an area of approximately 1,000 acres of vacant leasehold land zoned conservation located adjacent to Lot 4A, which currently has no development potential without both a development agreement with the lessor and zoning reclassification. The lease terminates in December 2025.

7. OIL AND NATURAL GAS PROPERTIES

2018 Acquisition

On August 28, 2018, Barnwell completed the acquisition of interests in oil and natural gas properties located in the Twining area of Alberta, Canada from an independent third party. The purchase price per the agreement was \$10,362,000, which took into account customary purchase price adjustments to reflect the economic activity from the effective date of July 1, 2018 to the closing date. The final determination of the customary adjustments to the purchase price has not yet been made, however it is not expected to result in a material adjustment. Barnwell also assumed \$3,076,000 in asset retirement obligations associated with the Twining acquisition. The Twining acquisition was accounted for as an asset acquisition as substantially all of the fair value of the gross assets acquired were concentrated in a group of similar identifiable assets, that being working interests in proved oil and natural gas properties with appurtenant reserves, with no material continuing employees, contracts or other assets of Twining acquired as part of the acquisition.

2018 Dispositions

In February 2018, Barnwell entered into a Purchase and Sale Agreement with two separate independent third parties and sold its oil properties located in the Red Earth area of Alberta, Canada. The sales prices per the agreements were adjusted for customary purchase price adjustments to reflect the economic activity from the effective date of October 1, 2017 to the closing date, for a combined adjusted sales price of \$1,367,000. From Barnwell's net proceeds, \$752,000 was withheld and remitted by the buyer to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes.

The difference in the relationship between capitalized costs and proved reserves of the Red Earth properties sold as compared to the properties retained by Barnwell was significant as there was a 322% difference in capitalized costs divided by proved reserves if the gain was recorded versus the gain being credited against the full-cost pool. Accordingly, Barnwell recorded a gain on the sale of Red Earth of \$2,140,000 in the year ended September 30, 2018 in accordance with the guidance in Rule 4-10(c)(6)(i) of Regulation S-X of the rules and regulations of the SEC, which requires an allocation of capitalized costs to the reserves sold and reserves retained on the basis of the relative fair values of the properties as there was a substantial economic difference between the properties sold and those retained. Also included in the gain calculation were asset retirement obligations of \$1,666,000 assumed by the purchaser.

During the year ended September 30, 2018, Barnwell also sold its interests in natural gas transmission lines and related surface facilities in the Stolberg area of Alberta, Canada, for \$118,000, and we recognized a \$115,000 gain on the sale.

Barnwell also sold miscellaneous other oil and natural gas properties for \$221,000 during the year ended September 30, 2018, of which \$106,000 was withheld and remitted by the buyers to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sales. No gain or loss was recognized related to these dispositions as these sales to multiple counterparties in unrelated transactions did not individually, or in aggregate, result in a significant alteration of the relationship between capitalized costs and proved reserves.

2017 Acquisition

On September 27, 2017, Barnwell completed the acquisition of additional working interests in oil and natural gas properties located in the Spirit River area of Alberta, Canada, for cash consideration. The purchase price per the agreement was adjusted to \$381,000 for customary purchase price adjustments to reflect the economic activity from the effective date of June 1, 2017 to the closing date. The Spirit River acquisition was accounted for as an asset acquisition.

2017 Dispositions

In June 2017, Barnwell entered into a Purchase and Sale Agreement with an independent third party and sold a portion of its oil and natural gas properties located in the Progress and Valhalla areas of Alberta, Canada. The sales price per the agreement was adjusted to \$1,076,000 for customary purchase price adjustments to reflect the economic activity from the effective date of April 1, 2017 to the closing date. From Barnwell's net proceeds, \$593,000 was withheld and remitted by the buyer to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sale.

During the year ended September 30, 2017, Barnwell also sold miscellaneous oil and natural gas properties for proceeds of \$208,000, of which \$72,000 was withheld and remitted by the buyers to the Canada Revenue Agency for potential amounts due for Barnwell's Canadian income taxes related to the sales.

No gain or loss was recognized related to these dispositions as these sales to multiple counterparties in unrelated transactions did not individually, or in aggregate, result in a significant alteration of the relationship between capitalized costs and proved reserves.

8. PROPERTY AND EQUIPMENT AND ASSET RETIREMENT OBLIGATION

Barnwell's property and equipment is detailed as follows:

| | Estimated Useful Lives | Gross Property and Equipment | Accumulated Depletion, Depreciation, and Amortization | Net Property and Equipment |
|---|------------------------|------------------------------|---|----------------------------|
| At September 30, 2018: | | | | |
| Land | | \$200,000 | \$— | \$200,000 |
| Oil and natural gas properties (full cost accounting) | | 63,946,000 | (48,769,000) | 15,177,000 |
| Drilling rigs and equipment | 3 – 10 years | 6,620,000 | (6,197,000) | 423,000 |
| Office | 40 years | 857,000 | (317,000) | 540,000 |
| Other property and equipment | 3 – 17 years | 1,387,000 | (1,316,000) | 71,000 |
| Total | | \$73,010,000 | \$(56,599,000) | \$16,411,000 |
| | Estimated Useful Lives | Gross Property and Equipment | Accumulated Depletion, Depreciation, and Amortization | Net Property and Equipment |
| At September 30, 2017: | | | | |
| Land | | \$365,000 | \$— | \$365,000 |
| Oil and natural gas properties (full cost accounting) | | 68,708,000 | (64,915,000) | 3,793,000 |
| Drilling rigs and equipment | 3 – 10 years | 6,577,000 | (5,992,000) | 585,000 |
| Office | 40 years | 857,000 | (295,000) | 562,000 |
| Other property and equipment | 3 – 17 years | 2,724,000 | (2,660,000) | 64,000 |
| Total | | \$79,231,000 | \$(73,862,000) | \$5,369,000 |

See Note 7 for discussion of acquisitions and divestitures of oil and natural gas properties in fiscal 2018 and 2017.

Based on 12-month rolling average first-day-of-the-month prices through December 2018, it is reasonably possible that we will incur a ceiling test impairment in the Company's first quarter of fiscal 2019 ending December 31, 2018. The Company is currently unable to estimate a range of the amount of any potential future reduction in carrying value as variables that impact the ceiling limitation are dependent upon actual results of activity through the end of December 2018.

Barnwell recognizes the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made. The following is a reconciliation of the asset retirement obligation:

| | Year ended September | |
|---|----------------------|--------------|
| | 30, 2018 | 2017 |
| Asset retirement obligation as of beginning of year | \$6,863,000 | \$7,194,000 |
| Obligations incurred on new wells drilled or acquired | 3,085,000 | 34,000 |
| Liabilities associated with properties sold | (1,855,000) | (406,000) |
| Revision of estimated obligation | (547,000) | 154,000 |
| Accretion expense | 297,000 | 433,000 |
| Payments | (624,000) | (833,000) |
| Foreign currency translation adjustment | (97,000) | 287,000 |
| Asset retirement obligation as of end of year | 7,122,000 | 6,863,000 |
| Less current portion | (444,000) | (1,231,000) |
| Asset retirement obligation, long-term | \$6,678,000 | \$5,632,000 |

Asset retirement obligations were reduced by \$1,855,000 and \$406,000, in fiscal 2018 and 2017, respectively, for those obligations that were assumed by purchasers of Barnwell's oil and natural gas properties. Asset retirement obligations increased by \$3,085,000 in fiscal 2018 due primarily to our acquisition of Twining in August 2018 (see Note 7 for additional details). The asset retirement obligation reflects the estimated present value of the amount of dismantlement, removal, site reclamation, and similar activities associated with Barnwell's oil and gas properties. Barnwell estimates the ultimate productive life of the properties, a credit-adjusted risk-free rate, and an inflation factor in order to determine the current present value of this obligation. The credit-adjusted risk-free rate for the entire asset retirement obligation is a blended rate which ranges from 6% to 11%. The credit-adjusted risk-free rate for the asset retirement obligation acquired through the Twining acquisition is 11%.

9. RETIREMENT PLANS

Barnwell sponsors a noncontributory defined benefit pension plan ("Pension Plan") covering substantially all of its U.S. employees, with benefits based on years of service and the employee's highest consecutive 5 years average earnings. Barnwell's funding policy is intended to provide for both benefits attributed to service to date and for those expected to be earned in the future. In addition, Barnwell sponsors a Supplemental Employee Retirement Plan ("SERP"), a noncontributory supplemental retirement benefit plan which covers certain current and former employees of Barnwell for amounts exceeding the limits allowed under the Pension Plan, and a postretirement medical insurance benefits plan ("Postretirement Medical") covering officers of Barnwell Industries, Inc., the parent company, who have attained at least 20 years of service of which at least 10 years were at the position of Vice President or higher, their spouses and qualifying dependents.

The following tables detail the changes in benefit obligations, fair values of plan assets and reconciliations of the funded status of the retirement plans:

| | Pension | | SERP | | Postretirement Medical | |
|---|---------------|--------------|---------------|---------------|------------------------|---------------|
| | September 30, | | 2018 | 2017 | 2018 | 2017 |
| | 2018 | 2017 | | | | |
| Change in Projected Benefit Obligation: | | | | | | |
| Benefit obligation at beginning of year | \$9,633,000 | \$10,055,000 | \$1,605,000 | \$2,366,000 | \$2,029,000 | \$2,486,000 |
| Service cost | 216,000 | 237,000 | 39,000 | 34,000 | — | — |
| Interest cost | 355,000 | 336,000 | 76,000 | 56,000 | 76,000 | 87,000 |
| Actuarial (gain) loss | (576,000) | (740,000) | 323,000 | (847,000) | 290,000 | (533,000) |
| Benefits paid | (464,000) | (255,000) | (4,000) | (4,000) | (13,000) | (11,000) |
| Benefit obligation at end of year | 9,164,000 | 9,633,000 | 2,039,000 | 1,605,000 | 2,382,000 | 2,029,000 |
| Change in Plan Assets: | | | | | | |
| Fair value of plan assets at beginning of year | 9,098,000 | 8,195,000 | — | — | — | — |
| Actual return on plan assets | 1,178,000 | 808,000 | — | — | — | — |
| Employer contributions | 200,000 | 350,000 | 4,000 | 4,000 | 13,000 | 11,000 |
| Benefits paid | (464,000) | (255,000) | (4,000) | (4,000) | (13,000) | (11,000) |
| Fair value of plan assets at end of year | 10,012,000 | 9,098,000 | — | — | — | — |
| Funded status | \$848,000 | \$(535,000) | \$(2,039,000) | \$(1,605,000) | \$(2,382,000) | \$(2,029,000) |
| | Pension | | SERP | | Postretirement Medical | |
| | September 30, | | 2018 | 2017 | 2018 | 2017 |
| | 2018 | 2017 | | | | |
| Amounts recognized in the Consolidated Balance Sheets: | | | | | | |
| Noncurrent assets | \$848,000 | \$— | \$— | \$— | \$— | \$— |
| Current liabilities | — | — | (4,000) | (4,000) | (7,000) | (15,000) |
| Noncurrent liabilities | — | (535,000) | (2,035,000) | (1,601,000) | (2,375,000) | (2,014,000) |
| Net amount | \$848,000 | \$(535,000) | \$(2,039,000) | \$(1,605,000) | \$(2,382,000) | \$(2,029,000) |
| Amounts recognized in accumulated other comprehensive loss (income) before income taxes: | | | | | | |
| Net actuarial loss (gain) | \$1,112,000 | \$2,374,000 | \$260,000 | \$(50,000) | \$560,000 | \$280,000 |
| Prior service cost (credit) | 59,000 | 65,000 | (59,000) | (65,000) | — | — |
| Accumulated other comprehensive loss (income) | \$1,171,000 | \$2,439,000 | \$201,000 | \$(115,000) | \$560,000 | \$280,000 |

Barnwell estimates that it will make approximately \$100,000 in contributions to the Pension Plan during fiscal 2019. The SERP and Postretirement Medical plans are unfunded and Barnwell funds benefits when payments are made. Expected payments under the Postretirement Medical plan and SERP for fiscal 2019 are not material. Fluctuations in actual market returns as well as changes in general interest rates will result in changes in the market value of plan assets and may result in increased or decreased retirement benefits costs and contributions in future periods.

The pension plan actuarial gains in fiscal 2018 were primarily due to an increase in the discount rate and actual investment returns that were greater than the assumed rate of return. The SERP actuarial losses

in fiscal 2018 were primarily due to an increase in the rate of compensation that was higher than expected. The postretirement medical plan actuarial losses in fiscal 2018 were primarily due to an increase in the medical insurance premium assumptions, partially offset by an increase in the discount rate.

The pension plan actuarial gains in fiscal 2017 were primarily due to an increase in the discount rate and actual investment returns that were greater than the assumed rate of return. The SERP actuarial gains in fiscal 2017 were primarily due to an increase in the discount rate and compensation increases that were lower than expected. The postretirement medical plan actuarial gains in fiscal 2017 were primarily due to an increase in the discount rate, an increase in the assumed retirement age, and decreases in the medical insurance premium assumptions.

The following table presents the weighted-average assumptions used to determine benefit obligations and net benefit costs:

| | Pension | | SERP | | Postretirement Medical | |
|--|--------------------------|-------|-------|-------|---------------------------|-------|
| | Year ended September 30, | | | | | |
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Assumptions used to determine fiscal year-end benefit obligations: | | | | | | |
| Discount rate | 4.15% | 3.75% | 4.15% | 3.75% | 4.15% | 3.75% |
| Rate of compensation increase | 4.00% | 4.00% | 4.00% | 4.00% | N/A | N/A |
| Assumptions used to determine net benefit costs (years ended): | | | | | | |
| Discount rate | 3.75% | 3.50% | 3.75% | 3.50% | 3.75% | 3.50% |
| Expected return on plan assets | 6.50% | 6.50% | N/A | N/A | N/A | N/A |
| Rate of compensation increase | 4.00% | 4.00% | 4.00% | 4.00% | N/A | N/A |

We select a discount rate by reference to yields available on the FTSE High Grade Credit Index at our consolidated balance sheet date. The expected return on plan assets is primarily based on historical rates of return.

The components of net periodic benefit cost are as follows:

| | Pension | | SERP | | Postretirement Medical | |
|---|--------------------------|------------|-----------|----------|---------------------------|-----------|
| | Year ended September 30, | | | | | |
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Net periodic benefit cost for the year: | | | | | | |
| Service cost | \$216,000 | \$237,000 | \$39,000 | \$34,000 | \$— | \$— |
| Interest cost | 355,000 | 336,000 | 76,000 | 56,000 | 76,000 | 87,000 |
| Expected return on plan assets | (591,000) | (539,000) | — | — | — | — |
| Amortization of prior service cost (credit) | 6,000 | 6,000 | (6,000) | (6,000) | — | — |
| Amortization of net actuarial loss | 99,000 | 138,000 | 14,000 | — | 11,000 | 188,000 |
| Net periodic benefit cost | \$85,000 | \$178,000 | \$123,000 | \$84,000 | \$87,000 | \$275,000 |

The amounts that are estimated to be amortized from accumulated other comprehensive loss into net periodic benefit cost in the next fiscal year are as follows:

| | Pension | SERP | Postretirement Medical |
|-----------------------------|----------|-----------|---------------------------|
| Prior service cost (credit) | \$5,000 | \$(5,000) | \$ — |
| Net actuarial loss | 8,000 | 4,000 | 54,000 |
| | \$13,000 | \$(1,000) | \$ 54,000 |

The accumulated benefit obligation differs from the projected benefit obligation in that it assumes future compensation levels will remain unchanged. The accumulated benefit obligation for the pension plan was \$8,122,000 and \$8,530,000 at September 30, 2018 and 2017, respectively. The accumulated benefit obligation for the SERP was \$1,699,000 and \$1,510,000 at September 30, 2018 and 2017, respectively.

The benefits expected to be paid under the retirement plans as of September 30, 2018 are as follows:

| | Pension | SERP | Postretirement Medical |
|---|-------------|-----------|---------------------------|
| Expected Benefit Payments: | | | |
| Fiscal year ending September 30, 2019 | \$294,000 | \$4,000 | \$ 7,000 |
| Fiscal year ending September 30, 2020 | \$393,000 | \$65,000 | \$ 9,000 |
| Fiscal year ending September 30, 2021 | \$410,000 | \$66,000 | \$ 37,000 |
| Fiscal year ending September 30, 2022 | \$394,000 | \$65,000 | \$ 41,000 |
| Fiscal year ending September 30, 2023 | \$528,000 | \$135,000 | \$ 34,000 |
| Fiscal years ending September 30, 2024 through 2028 | \$2,603,000 | \$690,000 | \$ 382,000 |

The following table provides the assumed health care cost trend rates related to the measurement of Barnwell's postretirement medical obligations.

| | Year ended September 30, | |
|--|--------------------------------|-------|
| | 2018 | 2017 |
| Health care cost trend rates assumed for next year | 7.25% | 7.50% |
| Ultimate cost trend rate | 5.0% | 5.0% |
| Year that the rate reaches the ultimate trend rate | 2028 | 2028 |

A 7.50% annual rate of increase in the per capita cost of covered health care benefits was assumed for fiscal 2018. This assumption is based on the plans' recent experience. It is assumed that the rate will decrease gradually to 5% for fiscal 2028 and remain level thereafter. The assumed health care cost trend rates have a significant effect on the amounts reported for the postretirement medical obligations. A one-percentage-point change in the assumed health care cost trend rates would have the following effects:

| | 1-Percentage Point Increase | 1-Percentage Point (Decrease) |
|--|-----------------------------------|----------------------------------|
| Effect on total service and interest cost components | \$ 17,000 | \$ (14,000) |
| Effect on accumulated postretirement benefit obligations | \$ 540,000 | \$ (422,000) |

Plan Assets

Management communicates periodically with its professional investment advisors to establish investment policies, direct investments and select investment options. The overall investment objective of the Pension Plan is to attain a diversified combination of investments that provides long-term growth in the assets of the plan to fund future benefit obligations while managing risk in order to meet current benefit obligations. Generally, interest and dividends received provide cash flows to fund current benefit obligations. Longer-term obligations are generally estimated to be provided for by growth in equity securities. The Company's investment policy permits investments in a diversified mix of U.S. and international equities, fixed income securities and cash equivalents.

Barnwell's investments in fixed income securities include corporate bonds, preferred securities, and fixed income exchange-traded funds. The Company's investments in equity securities primarily include domestic and international large-cap companies, as well as, domestic and international equity securities exchange-traded funds. Plan assets include \$4,000 of Barnwell's stock at September 30, 2018.

The Company's year-end target allocation, by asset category, and the actual asset allocations were as follows:

| Asset Category | Target Allocation | September 30, | |
|-------------------------|----------------------|------------------|------|
| | | 2018 | 2017 |
| Cash and other | 0% - 25% | 2% | 1% |
| Fixed income securities | 15% - 40% | 24% | 31% |
| Equity securities | 45% - 75% | 74% | 68% |

Actual investment allocations may vary from our target allocations from time to time due to prevailing market conditions. We periodically review our actual investment allocations and rebalance our investments to our target allocations as dictated by current and anticipated market conditions and required cash flows.

We categorize plan assets into three levels based upon the assumptions used to price the assets. Level 1 provides the most reliable measure of fair value, whereas Level 3 requires significant management judgment in determining the fair value. Equity securities and exchange-traded funds are valued by obtaining quoted prices on recognized and highly liquid exchanges. Fixed income securities are valued based upon the closing price reported in the active market in which the security is traded. All of our plan assets are categorized as Level 1 assets, and as such, the actual market value is used to determine the fair value of assets.

The following tables set forth by level, within the fair value hierarchy, pension plan assets at their fair value:

| | Carrying Amount as of September 30, 2018 | Fair Value Measurements Using: | | |
|---|--|---|---|--|
| | | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| Financial Assets: | | | | |
| Cash | \$ 221,000 | \$ 221,000 | \$ | —\$ — |
| Certificates of deposit | 230,000 | 230,000 | — | — |
| Corporate bonds | 3,000 | 3,000 | — | — |
| Fixed income exchange-traded funds | 2,135,000 | 2,135,000 | — | — |
| Equity securities exchange-traded funds | 567,000 | 567,000 | — | — |
| Equities | 6,856,000 | 6,856,000 | — | — |
| Total | \$ 10,012,000 | \$ 10,012,000 | \$ | —\$ — |

| | Carrying Amount as of September 30, 2017 | Fair Value Measurements Using: | | |
|---|---|---|---|--|
| | | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| Financial Assets: | | | | |
| Cash | \$ 124,000 | \$ 124,000 | \$ | —\$ — |
| Certificates of deposit | 496,000 | 496,000 | — | — |
| Corporate bonds | 210,000 | 210,000 | — | — |
| Fixed income exchange-traded funds | 2,036,000 | 2,036,000 | — | — |
| Preferred securities | 51,000 | 51,000 | — | — |
| Equity securities exchange-traded funds | 553,000 | 553,000 | — | — |
| Equities | 5,628,000 | 5,628,000 | — | — |
| Total | \$ 9,098,000 | \$ 9,098,000 | \$ | —\$ — |

10. INCOME TAXES

The components of (loss) earnings before income taxes, after adjusting the (loss) earnings for non-controlling interests, are as follows:

| | Year ended September 30, | |
|---------------|--------------------------|--------------|
| | 2018 | 2017 |
| United States | \$(2,449,000) | \$ 1,522,000 |
| Canada | 78,000 | (1,431,000) |
| | \$(2,371,000) | \$ 91,000 |

The components of the income tax benefit related to the above (loss) income are as follows:

| | Year ended September | |
|---|----------------------|---------------|
| | 30, | 2017 |
| | 2018 | 2017 |
| Current (benefit) provision: | | |
| United States – Federal | \$(429,000) | \$— |
| United States – State | | |
| Before operating loss carryforwards | 7,000 | 118,000 |
| Benefit of operating loss carryforwards | — | (107,000) |
| After operating loss carryforwards | 7,000 | 11,000 |
| | (422,000) | 11,000 |
| Canadian | (560,000) | (823,000) |
| Total current | (982,000) | (812,000) |
| Deferred (benefit) provision: | | |
| United States – Federal | — | — |
| United States – State | (44,000) | 11,000 |
| Canadian | 425,000 | (279,000) |
| Total deferred | 381,000 | (268,000) |
| | \$(601,000) | \$(1,080,000) |

Consolidated taxes do not bear a customary relationship to pretax results due primarily to the fact that the Company is taxed separately in Canada based on Canadian source operations and in the U.S. based on consolidated operations, and essentially all deferred tax assets, net of relevant offsetting deferred tax liabilities and any amounts estimated to be realizable through tax carryback strategies, are not estimated to have a future benefit as tax credits or deductions. Income from our non-controlling interest in the Kukio Resort Land Development Partnerships is treated as non-unitary for state of Hawaii unitary filing purposes, thus unitary Hawaii losses provide limited sheltering of such non-unitary income. In addition, the U.S. federal current tax benefit for the year ended September 30, 2018 includes a \$429,000 benefit from the impacts of the Tax Cuts and Jobs Act of 2017, as discussed further below, and the Canadian current income tax benefit for the year ended September 30, 2017 includes a \$369,000 benefit from the lapsing of the statute of limitations on a previously accrued uncertain tax position.

The Tax Cuts and Jobs Act of 2017 (“TCJA”), enacted on December 22, 2017, contains significant changes, including a reduction in the U.S. corporate income tax rate, repeal of the corporate Alternative Minimum Tax (“AMT”), restriction of the deduction for post-TCJA net operating losses to 80% of taxable income and elimination of net operating loss carrybacks, mandatory deemed repatriation and resulting taxation of all undistributed foreign earnings, as well as various other changes that either do not currently have a significant impact to the Company, or that may impact us in the future should those provisions become applicable to the Company. We believe our assessment of the estimated impacts of the TCJA is complete based on information available to date. However, the TCJA makes broad and complex changes to the U.S. tax code and is subject to interpretation until additional guidance is issued by taxation and financial reporting authorities. The ultimate impact of the TCJA may differ from our estimates due to changes in the interpretations and assumptions we used and changes in any future regulatory guidance.

The TCJA reduced the U.S. statutory tax rate from 35% to 21% effective January 1, 2018. The Company’s U.S. federal statutory rate for the fiscal year ended September 30, 2018 is a blended rate of 24.5%, based on a fiscal year blended rate calculation of pre- and post-TJCA rates, and will be 21% for future fiscal years. There was no consolidated financial statement impact of the TCJA’s reduction in the U.S. statutory

tax rate in the year ended September 30, 2018, as the Company has a full valuation allowance on its net deferred tax assets under U.S. federal tax law.

The repeal of the corporate AMT provides a mechanism for the refund over time of any unused AMT credit carryovers. Prior to the enactment of the TCJA, it was not more likely than not that the Company's AMT credit carryovers would provide a future benefit, as such the AMT deferred tax asset had a full valuation allowance. As a result of the new TCJA provision for refundability of the AMT, the Company recorded a current income tax benefit of \$429,000, net of an estimated sequestration provision, in the year ended September 30, 2018 to reflect the undiscounted unused AMT credit carryover balance as a non-current income tax receivable. Respective portions of this balance will be reclassified to current income taxes receivable when amounts are eligible for refund within one year of the balance sheet date.

The TCJA restricts the deduction for post-TCJA net operating losses to 80% of taxable income and eliminates the current net operating loss carryback provisions. The Company has determined that all existing pre-TCJA net operating loss carryovers are of sufficient magnitude and life such that they will fully shelter future reversals of U.S. federal deferred tax liabilities. As such, there was no consolidated financial statement impact of the TCJA's changes to net operating losses in the year ended September 30, 2018.

The TCJA established mandatory deemed repatriation and resulting taxation of all post-1986 undistributed foreign earnings. Through August 2018, as the Company's Canadian operations consisted of a U.S. corporate subsidiary operating as a branch in Canada and other minor, inactive Canadian corporate subsidiaries, there was no impact from this provision through August 2018. In September 2018, the Company's Canadian operations included an active Canadian corporate subsidiary. We evaluated the impact of the TCJA on this subsidiary and determined that there was no impact from this provision.

A reconciliation between the reported income tax benefit and the amount computed by multiplying the (loss) earnings attributable to Barnwell before income taxes by the U.S. federal tax rate of 21% and 35% for the years ended September 30, 2018 and 2017, respectively, is as follows:

| | Year ended September 30, | |
|--|--------------------------|----------------|
| | 2018 | 2017 |
| Tax (benefit) provision computed by applying statutory rate | \$(498,000) | \$32,000 |
| Impact of TCJA tax rate change on net deferred tax assets | 5,817,000 | — |
| Decrease in the valuation allowance | (6,044,000) | (1,034,000) |
| Impact of TCJA on alternative minimum tax credit carryovers | (429,000) | — |
| Additional effect of the foreign tax provision on the total tax provision | 592,000 | 254,000 |
| Uncertain tax positions - lapse of statute | — | (369,000) |
| U.S. state tax provision, before changes in uncertain tax positions and net of federal benefit | (36,000) | 22,000 |
| Other | (3,000) | 15,000 |
| | \$ (601,000) | \$ (1,080,000) |

The changes in the valuation allowance shown in the table above exclude the impact of changes in uncertain tax positions, state taxes and refundable alternative minimum tax credit carryovers, the valuation allowance impacts of which are incorporated within the respective reconciliation line items elsewhere in the table.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are as follows:

| | September 30, | |
|--|---------------|--------------|
| | 2018 | 2017 |
| Deferred income tax assets: | | |
| Foreign tax credit carryover | \$2,455,000 | \$3,062,000 |
| Alternative minimum tax credit carryover | — | 460,000 |
| U.S. federal net operating loss carryover | 7,208,000 | 9,773,000 |
| Canadian net operating loss carryover | 314,000 | — |
| Tax basis of investment in land and residential real estate in excess of book basis | 296,000 | 877,000 |
| Property and equipment accumulated book depreciation and depletion in excess of tax under U.S. tax law | 1,183,000 | 2,180,000 |
| Liabilities accrued for books but not for tax under U.S. tax law | 1,901,000 | 3,910,000 |
| Liabilities accrued for books but not for tax under Canadian tax law | 2,097,000 | 2,103,000 |
| Other | 916,000 | 1,091,000 |
| Total gross deferred income tax assets | 16,370,000 | 23,456,000 |
| Less valuation allowance | (14,039,000) | (21,158,000) |
| Net deferred income tax assets | 2,331,000 | 2,298,000 |
| Deferred income tax liabilities: | | |
| Property and equipment accumulated tax depreciation and depletion in excess of book under Canadian tax law | (1,828,000) | (914,000) |
| Book basis of investment in land development partnerships in excess of tax basis | (818,000) | (1,289,000) |
| Other | — | (31,000) |
| Total deferred income tax liabilities | (2,646,000) | (2,234,000) |
| Net deferred income tax (liability) asset | \$(315,000) | \$64,000 |
| Reported as: | | |
| Deferred income tax assets | — | 300,000 |
| Deferred income tax liabilities | (315,000) | (236,000) |
| Net deferred income tax (liability) asset | \$(315,000) | \$64,000 |

The total valuation allowance decreased \$7,119,000 for the year ended September 30, 2018. The decrease was primarily due to \$5,817,000 in decreases in various deferred tax assets for which a full valuation allowance had been provided as the result of the decrease in the income tax rate provided for by the TCJA. The decrease was also attributable to a decrease in foreign tax credit carryovers and alternative minimum tax credit carryovers. Foreign tax credit carryovers decreased as a portion of Canadian tax losses for the year ended September 30, 2018 will be carried back to obtain a refund of a portion of Canadian income taxes previously paid. Alternative minimum tax credit carryovers were reduced to zero due to such carryovers now being refundable under the TCJA, as discussed above. Of the total net decrease in the valuation allowance for fiscal 2018, \$6,970,000 was recognized as an income tax benefit and \$149,000 was credited to accumulated other comprehensive loss.

Net deferred tax assets at September 30, 2018 of \$2,331,000 consists of the portion of deferred tax assets related to liabilities accrued for books but not for tax under Canadian tax law and net operating loss

carryovers under Canadian tax law for which it is estimated that it is more likely than not that such future deductions will be realizable as the result of concurrent deferred tax liability reversals.

At September 30, 2018, Barnwell had U.S. federal foreign tax credit carryovers, U.S. federal net operating loss carryovers and Canadian net operating loss carryovers totaling \$2,455,000, \$34,322,000 and \$1,163,000, respectively. All three items were fully offset by valuation allowances at September 30, 2018. The U.S. federal net operating loss carryovers generated through September 30, 2017 expire in fiscal years 2032-2037, the Canadian net operating loss carryovers expire in fiscal years 2037-2038, and the foreign tax credit carryovers expire in fiscal years 2019-2025. The U.S. federal net operating loss carryover generated in the year ended September 30, 2018 has no expiry under the changes made by the TCJA.

FASB ASC Topic 740, Income Taxes, prescribes a threshold for recognizing the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination by a taxing authority.

Below are the changes in unrecognized tax benefits.

| | Year ended September 30, 2017 |
|---|--|
| Balance at beginning of year | \$-377,000 |
| Effect of tax positions taken in prior years | — |
| Accrued interest related to tax positions taken | —11,000 |
| Settlements | —(10,000) |
| Lapse of statute | —(369,000) |
| Translation adjustments | —(9,000) |
| Balance at end of year | \$-— |

The Company has no remaining uncertain tax positions as of September 30, 2018 or 2017.

Included below is a summary of the tax years, by jurisdiction, that remain subject to examination by taxing authorities at September 30, 2018:

| Jurisdiction | Fiscal Years Open |
|----------------------------|-------------------|
| U.S. federal | 2015 – 2017 |
| Various U.S. states | 2015 – 2017 |
| Canada federal | 2011 – 2017 |
| Various Canadian provinces | 2011 – 2017 |

11. SEGMENT AND GEOGRAPHIC INFORMATION

Barnwell operates the following segments: 1) acquiring, developing, producing and selling oil and natural gas in Canada (oil and natural gas); 2) investing in land interests in Hawaii (land investment); and 3) drilling wells and installing and repairing water pumping systems in Hawaii (contract drilling).

The following table presents certain financial information related to Barnwell's reporting segments. All revenues reported are from external customers with no intersegment sales or transfers.

| | Year ended September 30, | |
|---|--------------------------|--------------|
| | 2018 | 2017 |
| Revenues: | | |
| Oil and natural gas | \$3,706,000 | \$4,383,000 |
| Land investment | 1,645,000 | 4,503,000 |
| Contract drilling | 3,769,000 | 3,938,000 |
| Other | 86,000 | 113,000 |
| Total before interest income | 9,206,000 | 12,937,000 |
| Interest income | 162,000 | 93,000 |
| Total revenues | \$9,368,000 | \$13,030,000 |
| Depletion, depreciation, and amortization: | | |
| Oil and natural gas | \$826,000 | \$848,000 |
| Contract drilling | 223,000 | 270,000 |
| Other | 62,000 | 85,000 |
| Total depletion, depreciation, and amortization | \$1,111,000 | \$1,203,000 |
| Impairment: | | |
| Land investment | \$37,000 | \$155,000 |
| Other | 165,000 | — |
| Total impairment | \$202,000 | \$155,000 |
| Operating profit (loss) (before general and administrative expenses): | | |
| Oil and natural gas | \$247,000 | \$507,000 |
| Land investment | 1,608,000 | 4,348,000 |
| Contract drilling | (104,000) | 437,000 |
| Other | (141,000) | 28,000 |
| Gain on sales of assets | 2,255,000 | 527,000 |
| Total operating profit | 3,865,000 | 5,847,000 |
| Equity in income of affiliates: | | |
| Land investment | 223,000 | 2,276,000 |
| General and administrative expenses | (6,262,000) | (6,976,000) |
| Interest expense | (7,000) | (6,000) |
| Interest income | 162,000 | 93,000 |
| (Loss) earnings before income taxes | \$(2,019,000) | \$1,234,000 |

Capital Expenditures:

| | Year ended September 30, | |
|---------------------|-----------------------------|-------------|
| | 2018 | 2017 |
| Oil and natural gas | \$13,428,000 | \$1,037,000 |
| Contract drilling | 60,000 | 229,000 |
| Other | 54,000 | 9,000 |
| Total | \$13,542,000 | \$1,275,000 |

Assets By Segment:

| | September 30, | |
|---------------------------|---------------|--------------|
| | 2018 | 2017 |
| Oil and natural gas (1) | \$18,785,000 | \$5,910,000 |
| Land investment (2) | 1,608,000 | 3,247,000 |
| Contract drilling (2) | 1,804,000 | 1,543,000 |
| Other: | | |
| Cash and cash equivalents | 5,965,000 | 16,281,000 |
| Certificates of deposit | 741,000 | 4,413,000 |
| Corporate and other | 2,475,000 | 1,626,000 |
| Total | \$31,378,000 | \$33,020,000 |

(1) Primarily located in the province of Alberta, Canada.

(2) Located in Hawaii.

Long-Lived Assets By Geographic Area:

| | September 30, | |
|---------------|---------------|-------------|
| | 2018 | 2017 |
| United States | \$4,119,000 | \$3,765,000 |
| Canada | 15,177,000 | 4,113,000 |
| Total | \$19,296,000 | \$7,878,000 |

Revenue By Geographic Area:

| | Year ended September 30, | |
|-----------------------------------|-----------------------------|--------------|
| | 2018 | 2017 |
| United States | \$5,418,000 | \$8,444,000 |
| Canada | 3,788,000 | 4,493,000 |
| Total (excluding interest income) | \$9,206,000 | \$12,937,000 |

12. ACCUMULATED OTHER COMPREHENSIVE (LOSS) INCOME

Components of accumulated other comprehensive loss, net of taxes, are as follows:

| | Year ended September 30, | |
|---|--------------------------|---------------|
| | 2018 | 2017 |
| Foreign currency translation: | | |
| Beginning accumulated foreign currency translation | \$ 1,053,000 | \$ 906,000 |
| Net current period other comprehensive (loss) income | (128,000) | 147,000 |
| Ending accumulated foreign currency translation | 925,000 | 1,053,000 |
| Retirement plans: | | |
| Beginning accumulated retirement plans benefit cost | (2,111,000) | (4,826,000) |
| Amortization of net actuarial loss and prior service cost | 124,000 | 326,000 |
| Net actuarial gain arising during the period | 548,000 | 2,389,000 |
| Net current period other comprehensive income | 672,000 | 2,715,000 |
| Ending accumulated retirement plans benefit cost | (1,439,000) | (2,111,000) |
| Accumulated other comprehensive loss, net of taxes | \$(514,000) | \$(1,058,000) |

The amortization of accumulated other comprehensive loss components for the retirement plans are included in the computation of net periodic benefit cost which is a component of "General and administrative" expenses on the accompanying Consolidated Statements of Operations (see Note 9 for additional details).

13. FAIR VALUE MEASUREMENTS

Fair Value of Financial Instruments

The carrying values of cash and cash equivalents, certificates of deposit, restricted cash, accounts and other receivables, accounts payable and accrued current liabilities approximate their fair values due to the short-term nature of the instruments.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

The estimated fair values of oil and natural gas properties and the asset retirement obligation assumed in the acquisitions of additional oil and natural gas working interests are based on an estimated discounted cash flow model and market assumptions. The significant Level 3 assumptions used in the calculation of estimated discounted cash flows included future commodity prices, projections of estimated quantities of oil and natural gas reserves, expectations for timing and amount of future development, operating and asset retirement costs, projections of future rates of production, expected recovery rates and risk adjusted discount rates. See Note 7 for additional information regarding oil and natural gas property acquisitions.

Barnwell estimates the fair value of asset retirement obligations based on the projected discounted future cash outflows required to settle abandonment and restoration liabilities. Such an estimate requires assumptions and judgments regarding the existence of liabilities, the amount and timing of cash outflows required to settle the liability, what constitutes adequate restoration, inflation factors, credit adjusted discount rates, and consideration of changes in legal, regulatory, environmental and political environments. Abandonment and restoration cost estimates are determined in conjunction with Barnwell's reserve engineers based on historical information regarding costs incurred to abandon and restore similar well sites, information regarding current market conditions and costs, and knowledge of subject well sites and properties. Asset

retirement obligation fair value measurements in the current period were Level 3 fair value measurements. As further described in Note 8, the Company recognizes the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made. Asset retirement obligations are not measured at fair value subsequent to initial recognition.

14. COMMITMENTS AND CONTINGENCIES

Lease Commitments

Barnwell has several non-cancelable operating leases for office space, contract drilling base yard space and leasehold land, and records rent on a straight-line basis over the lease term. Rental expense was \$511,000 and \$426,000 for the years ended September 30, 2018 and 2017, respectively. At September 30, 2018 and 2017, the difference between the recognized rent expense and the amounts paid totaled \$107,000 and \$21,000, respectively, and was reported as a non-current liability within "Deferred rent" on the Consolidated Balance Sheets. Barnwell is committed under these leases for minimum rental payments summarized by fiscal year as follows:

| Fiscal year ending | |
|-------------------------|-------------|
| 2019 | \$274,000 |
| 2020 | 274,000 |
| 2021 | 274,000 |
| 2022 | 218,000 |
| 2023 | 208,000 |
| Thereafter through 2047 | 6,274,000 |
| Total | \$7,522,000 |

The lease payments for the Lot 4C leasehold land were subject to renegotiation as of January 1, 2006. Per the lease agreement, the lease payments will remain unchanged pending an appraisal, whereupon the lease rent could be adjusted to fair market value. Barnwell does not know the amount of the new lease payments which could be effective upon performance of the appraisal; they may remain unchanged or increase, and Barnwell currently expects the adjustment, if any, to not be material. The future rental payment disclosures above assume the minimum lease payments for leasehold land in effect at December 31, 2005 remain unchanged through December 2025, the end of the lease term.

Environmental Matters

Because of the inherent uncertainties associated with environmental assessment and remediation activities, future expenses to remediate sites identified in the future, if any, could be incurred. Barnwell's management is not currently aware of any significant environmental contingent liabilities requiring disclosure or accrual.

Legal and Regulatory Matters

Barnwell is routinely involved in disputes with third parties that occasionally require litigation. In addition, Barnwell is required to maintain compliance with all current governmental controls and regulations in the ordinary course of business. Barnwell's management is not aware of any claims or litigation involving Barnwell that are likely to have a material adverse effect on its results of operations, financial position or liquidity.

Other Matters

Barnwell is obligated to pay Nearco Enterprises Ltd. 10.4%, net of non-controlling interests' share, of Kaupulehu Developments' gross receipts from real estate transactions. The fees represent compensation for promotion and marketing of Kaupulehu Developments' property and were determined based on the estimated fair value of such services. These fees are included in general and administrative expenses.

Barnwell is obligated to pay its external real estate legal counsel 1.2%, net of non-controlling interests' share, of all Increment II payments received by Kaupulehu Developments for services provided by its external real estate legal counsel in the negotiation and closing of the Increment II transaction. These fees are included in general and administrative expenses.

15. INFORMATION RELATING TO THE CONSOLIDATED STATEMENTS OF CASH FLOWS

The following table details the effect of changes in current assets and liabilities on the Consolidated Statements of Cash Flows, and presents supplemental cash flow information:

| | Year ended September 30, | |
|---|--------------------------|---------------|
| | 2018 | 2017 |
| Increase (decrease) from changes in: | | |
| Receivables | \$ (574,000) | \$ (116,000) |
| Income tax receivable | (535,000) | (50,000) |
| Other current assets | (100,000) | (289,000) |
| Accounts payable | 124,000 | (279,000) |
| Accrued compensation | 239,000 | (72,000) |
| Other current liabilities | (508,000) | 192,000 |
| Decrease from changes in current assets and liabilities | \$ (1,354,000) | \$ (614,000) |
| Supplemental disclosure of cash flow information: | | |
| Cash paid (received) during the year for: | | |
| Interest | \$6,000 | \$6,000 |
| Income taxes refunded, net | \$ (16,000) | \$ (90,000) |
| Supplemental disclosure of non-cash investing activities: | | |
| Canadian income tax withholding on proceeds from the sale of oil and natural gas properties | \$858,000 | \$665,000 |

Capital expenditure accruals related to oil and natural gas acquisition and development decreased \$108,000 and \$101,000 during the years ended September 30, 2018 and 2017, respectively. Additionally, during the years ended September 30, 2018 and 2017, capital expenditure accruals related to oil and natural gas asset retirement obligations increased \$2,538,000 and \$188,000, respectively.

16. RELATED PARTY TRANSACTIONS

Kaupulehu Developments is entitled to receive payments from KD I and KD II. KD I and KD II are part of the Kukio Resort Land Development Partnerships in which Barnwell holds an indirect non-controlling ownership interest accounted for under the equity method of investment. The payments that Kaupulehu Developments is entitled to receive are contingent residual payments resulting from Kaupulehu

Developments' sale of its leasehold interests in Increment I and Increment II in 2004 and 2006 to KD I's and KD II's predecessors in interest, respectively, which was prior to Barnwell's affiliation with KD I and KD II which commenced on November 27, 2013, the acquisition date of our ownership interest in the Kukio Resort Land Development Partnerships.

During the year ended September 30, 2018, Barnwell received \$1,645,000 in payments, of which \$1,000,000 was related to the 50% of distributions otherwise payable from KD II to its members after the members of KD II received distributions equal to the original basis of capital invested in the project, up to \$8,000,000. The remaining \$645,000 in payments was due to percentage of sales payments from KD I from the sale of three lots within Phase II of Increment I.

During the year ended September 30, 2017, Barnwell received \$2,003,000 in percentage of sales payments from KD I and KD II from the sale of two lots within Phase II of Increment I and one lot within Increment II. In fiscal 2017, the members of KD II received cumulative distributions equal to the original basis of capital invested in the project after which Kaupulehu Developments received \$2,500,000 during the year ended September 30, 2017.

Barnwell has a compensation-based gross overriding royalty arrangement with a Canadian corporation owned and controlled by Barnwell of Canada's President and Chief Operating Officer. The overriding royalty is based on 1% of the gross revenues received by Barnwell of Canada from certain oil and natural gas wells drilled or working interests acquired as specified in the underlying agreements. As of September 30, 2018, the estimated accrued value of this arrangement based on agreed-upon wells drilled is approximately \$53,000, which is reported in "Accrued compensation" on the Consolidated Balance Sheet. This amount may change in the future depending upon any future wells drilled or working interests acquired that are included in the arrangement.

17. SUBSEQUENT EVENTS

In October 2018, Kaupulehu Developments received a percentage of sales payment of \$165,000 from the sale of a lot within Phase II of Increment I. Financial results from the receipt of this payment will be reflected in Barnwell's quarter ending December 31, 2018.

In October 2018, the Kukio Resort Land Development Partnerships made a cash distribution to its partners of which Barnwell received \$314,000, after distributing \$38,000 to minority interests. The receipt of this distribution, which does not impact net earnings or loss, will be reflected in Barnwell's quarter ending December 31, 2018. Barnwell has the right to receive distributions from its non-controlling interest in KKM in proportion to its partner capital sharing ratio of 34.45%. Barnwell is entitled to a 100% preferred return up to \$1,000,000 from KKM on any allocated equity in income of the Kukio Resort Land Development Partnerships for cumulative distributions to all of its partners in excess of \$45,000,000 from those partnerships. With the distribution in October 2018, cumulative distributions from the Kukio Resort Land Development Partnerships totaled \$45,000,000. Because we have no control over the distributions from the Kukio Resort Land Development Partnerships and the ability of the Kukio Resort Land Development Partnerships to make such distributions is dependent upon their future sales of lots, we have not recorded any estimated potential preferred return from KKM in our equity in income to date. However, if sufficient distributions are made by the Kukio Resort Land Development Partnerships in the future, Barnwell will have equity in income of affiliates for the recognition of the preferred return. There is no assurance that any future distributions and resulting preferred returns will occur.

18. SUMMARY OF SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

Disclosure is not required as Barnwell qualifies as a smaller reporting company.

19. SUPPLEMENTARY OIL AND NATURAL GAS INFORMATION (UNAUDITED)

The following tables summarize information relative to Barnwell's oil and natural gas operations, which are conducted in Canada. Proved reserves are the estimated quantities of oil, natural gas and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Proved producing oil and natural gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods. The estimated net interests in total proved and proved producing reserves are based upon subjective engineering judgments and may be affected by the limitations inherent in such estimations. The process of estimating reserves is subject to continual revision as additional information becomes available as a result of drilling, testing, reservoir studies and production history. There can be no assurance that such estimates will not be materially revised in subsequent periods.

(A) Oil and Natural Gas Reserves

The following table summarizes changes in the estimates of Barnwell's net interests in total proved reserves of oil and natural gas liquids and natural gas, which are all in Canada. All of the information regarding reserves in this Form 10-K is derived from the report of our independent petroleum reserve engineers, InSite, and is included as an Exhibit to this Form 10-K. The Company emphasizes that reserve estimates are inherently imprecise and that estimates of new discoveries and undeveloped locations are more imprecise than estimates of established proved producing oil and natural gas properties. Accordingly, these estimates are expected to change as future information becomes available.

Proved oil and natural gas reserves are the estimated quantities of oil and natural gas that geological and engineering data demonstrate, with reasonable certainty, to be recoverable in future years from known reservoirs under economic and operating conditions (i.e., prices and costs) existing at the time the estimate is made. Proved developed oil and natural gas reserves are proved reserves that can be expected to be recovered through existing wells and equipment in place and under operating methods being utilized at the time the estimates were made.

| | OIL & NGL (Bbls) | GAS (Mcf) | Total (Boe) |
|---|------------------------|--------------|----------------|
| Proved reserves: | | | |
| Balance at September 30, 2016 | 450,000 | 1,441,000 | 698,000 |
| Revisions of previous estimates | 85,000 | 2,103,000 | 447,000 |
| Acquisitions of reserves | 31,000 | 39,000 | 38,000 |
| Less sales of reserves | (67,000) | (200,000) | (101,000) |
| Less production | (86,000) | (378,000) | (151,000) |
| Balance at September 30, 2017 | 413,000 | 3,005,000 | 931,000 |
| Revisions of previous estimates | (2,000) | (1,571,000) | (273,000) |
| Extensions, discoveries and other additions | 46,000 | 144,000 | 71,000 |
| Acquisitions of reserves | 1,296,000 | 4,060,000 | 1,997,000 |
| Less sales of reserves | (96,000) | (255,000) | (141,000) |
| Less production | (67,000) | (328,000) | (123,000) |
| Proved Reserves, September 30, 2018 | 1,590,000 | 5,055,000 | 2,462,000 |
| Proved Developed Reserves, September 30, 2018 | 693,000 | 2,399,000 | 1,107,000 |
| Proved Undeveloped Reserves, September 30, 2018 | 897,000 | 2,656,000 | 1,355,000 |

(B) Capitalized Costs Relating to Oil and Natural Gas Producing Activities

All capitalized costs relating to oil and natural gas producing activities, which were being depleted in all years, are summarized as follows:

| | September 30, | |
|--|---------------|--------------|
| | 2018 | 2017 |
| Proved properties | \$63,766,000 | \$68,522,000 |
| Unproved properties | 180,000 | 186,000 |
| Total capitalized costs | 63,946,000 | 68,708,000 |
| Accumulated depletion and depreciation | 48,769,000 | 64,915,000 |
| Net capitalized costs | \$15,177,000 | \$3,793,000 |

(C) Costs Incurred in Oil and Natural Gas Property Acquisition, Exploration and Development

| | Year ended September 30, | |
|----------------------------|--------------------------|-------------|
| | 2018 | 2017 |
| Acquisition of properties: | | |
| Unproved | \$6,000 | \$70,000 |
| Proved | 13,422,000 | 381,000 |
| Development costs | — | 586,000 |
| Total | \$13,428,000 | \$1,037,000 |

Costs incurred in the table above include additions and revisions to Barnwell's asset retirement obligation of \$2,538,000 and \$188,000 for the years ended September 30, 2018 and 2017, respectively.

(D) Results of Operations for Oil and Natural Gas Producing Activities

| | Year ended September 30, | |
|-----------------------------------|--------------------------|--------------|
| | 2018 | 2017 |
| Net revenues | \$3,706,000 | \$4,383,000 |
| Production costs | (2,633,000) | (3,028,000) |
| Depletion | (826,000) | (848,000) |
| Pre-tax results of operations (1) | 247,000 | 507,000 |
| Estimated income tax benefit (2) | 83,000 | 282,000 |
| Results of operations (1) | \$330,000 | \$789,000 |

(1) Before gain on sale of oil and natural gas properties, general and administrative expenses, interest expense, and foreign exchange gains and losses.

(2) Estimated income tax benefit includes changes to the deferred income tax valuation allowance necessary for the portion of Canadian tax law deferred tax assets that may not be realizable.

(E) Standardized Measure, Including Year-to-Year Changes Therein, of Estimated Discounted Future Net Cash Flows

The following tables utilize reserve and production data estimated by independent petroleum reserve engineers. The information may be useful for certain comparison purposes but should not be solely relied upon in evaluating Barnwell or its performance. Moreover, the projections should not be construed as realistic estimates of future cash flows, nor should the standardized measure be viewed as representing current value.

The estimated future cash flows at September 30, 2018 and 2017 were based on average sales prices in effect on the first day of the month for the preceding twelve month period in accordance with SEC Release No. 33-8995. The future production and development costs represent the estimated future expenditures that we will incur to develop and produce the proved reserves, assuming continuation of existing economic conditions. The future income tax expenses were computed by applying statutory income tax rates in existence at September 30, 2018 and 2017 to the future pre-tax net cash flows relating to proved reserves, net of the tax basis of the properties involved.

Material revisions to reserve estimates may occur in the future, development and production of the oil and natural gas reserves may not occur in the periods assumed and actual prices realized and actual costs incurred are expected to vary significantly from those used. Management does not rely upon this information in making investment and operating decisions; rather, those decisions are based upon a wide range of factors, including estimates of probable reserves as well as proved reserves and price and cost assumptions different than those reflected herein.

Standardized Measure of Discounted Future Net Cash Flows

| | September 30, | |
|--|---------------|---------------|
| | 2018 | 2017 |
| Future cash inflows | \$83,947,000 | \$24,786,000 |
| Future production costs | (41,130,000) | (15,140,000) |
| Future development costs | (13,753,000) | (1,172,000) |
| Future income tax expenses | (6,236,000) | (2,401,000) |
| Future net cash flows | 22,828,000 | 6,073,000 |
| 10% annual discount for timing of cash flows | (8,992,000) | (1,756,000) |
| Standardized measure of discounted future net cash flows | \$13,836,000 | \$4,317,000 |

Changes in the Standardized Measure of Discounted Future Net Cash Flows

| | Year ended September 30, | |
|---|--------------------------|--------------|
| | 2018 | 2017 |
| Beginning of year | \$4,317,000 | \$2,910,000 |
| Sales of oil and natural gas produced, net of production costs | (1,073,000) | (1,355,000) |
| Net changes in prices and production costs, net of royalties and wellhead taxes | (726,000) | 3,033,000 |
| Extensions and discoveries | 2,224,000 | — |
| Net change due to purchases and sales of minerals in place | 10,373,000 | (305,000) |
| Revisions of previous quantity estimates | (491,000) | 511,000 |
| Net change in income taxes | (3,388,000) | (1,247,000) |
| Accretion of discount | 418,000 | 305,000 |
| Other - changes in the timing of future production and other | 2,315,000 | 400,000 |
| Other - net change in Canadian dollar translation rate | (133,000) | 65,000 |
| Net change | 9,519,000 | 1,407,000 |
| End of year | \$13,836,000 | \$4,317,000 |

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We have established disclosure controls and procedures to ensure that material information relating to Barnwell, including its consolidated subsidiaries, is made known to the officers who certify Barnwell's financial reports and to other members of executive management and the Board of Directors.

As of September 30, 2018, an evaluation was carried out by Barnwell's Chief Executive Officer and Chief Financial Officer of the effectiveness of Barnwell's disclosure controls and procedures. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that Barnwell's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) were effective as of September 30, 2018 to ensure that information required to be disclosed by Barnwell in reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities Exchange Act of 1934 and the rules thereunder.

Management's Annual Report on Internal Control Over Financial Reporting

Barnwell's management is responsible for establishing and maintaining adequate internal control over financial reporting for Barnwell, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Under the supervision and with the participation of Barnwell's management, including our Chief Executive Officer and Chief Financial Officer, Barnwell conducted an evaluation of the effectiveness of its internal control over financial reporting using criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the report entitled Internal Control — Integrated Framework (2013) (the "COSO Framework"). Based on this evaluation under the COSO Framework, management concluded that its internal control over financial reporting was effective as of September 30, 2018.

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Pursuant to Item 308(b) of Regulation S-K, management's report is not subject to attestation by our independent registered public accounting firm because the Company is neither an "accelerated filer" nor a "large accelerated filer" as those terms are defined by the SEC.

Changes in Internal Control Over Financial Reporting

There was no change in Barnwell's internal control over financial reporting during the quarter ended September 30, 2018 that materially affected, or is reasonably likely to materially affect, Barnwell's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required is omitted pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement for the Annual Meeting of Stockholders no later than 120 days after the close of its fiscal year ended September 30, 2018, which proxy statement is incorporated herein by reference.

Barnwell adopted a Code of Ethics that applies to its Chief Executive Officer and the Chief Financial Officer. This Code of Ethics has been posted on Barnwell's website at www.brninc.com.

ITEM 11. EXECUTIVE COMPENSATION

The information required is omitted pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement for the Annual Meeting of Stockholders no later than 120 days after the close of its fiscal year ended September 30, 2018, which proxy statement is incorporated herein by reference.

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

The information required is omitted pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement for the Annual Meeting of Stockholders no later than 120 days after the close of its fiscal year ended September 30, 2018, which proxy statement is incorporated herein by reference.

Equity Compensation Plan Information

The following table provides information about Barnwell's common stock that may be issued upon exercise of options and rights under Barnwell's existing equity compensation plan as of September 30, 2018:

| Plan Category | (a) Number of securities to be issued upon exercise of outstanding options, warrants and rights | (b) Weighted-average price of outstanding options, warrants and rights | (c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) |
|--|--|---|--|
| Equity compensation plans approved by security holders | 318,750 | \$4.07 | — |
| Equity compensation plans not approved by security holders | — | — | — |
| Total | 318,750 | \$4.07 | — |

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

The information required is omitted pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement for the Annual Meeting of Stockholders no later than 120 days after the close of its fiscal year ended September 30, 2018, which proxy statement is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required is omitted pursuant to General Instruction G(3) of Form 10-K, since the Registrant will file its definitive proxy statement for the Annual Meeting of Stockholders no later than 120 days after the close of its fiscal year ended September 30, 2018, which proxy statement is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

The following consolidated financial statements of Barnwell Industries, Inc. and its subsidiaries are included in Part II, Item 8:

Report of Independent Registered Public Accounting Firm – KPMG LLP

Consolidated Balance Sheets – September 30, 2018 and 2017

Consolidated Statements of Operations – for the years ended September 30, 2018 and 2017

Consolidated Statements of Comprehensive (Loss) Income – for the years ended September 30, 2018 and 2017

Consolidated Statements of Equity – for the years ended September 30, 2018 and 2017

Consolidated Statements of Cash Flows – for the years ended September 30, 2018 and 2017

Notes to Consolidated Financial Statements

Schedules have been omitted because they were not applicable, not required, or the information is included in the consolidated financial statements or notes thereto.

(b) Exhibits

| Exhibit Number | Description |
|----------------|--|
| 3.1 | Certificate of Incorporation, as amended (1) |
| 3.2 | Amended and Restated By-Laws (2) |
| 4.0 | Form of the Registrant's certificate of common stock, par value \$.50 per share (3) |
| 10.1 | The Barnwell Industries, Inc. Employees' Pension Plan (restated as of October 1, 1989) (4) |
| 10.2 | Form of Purchase and Sale Agreement dated February 13, 2004 by and between Kaupulehu Developments and WB KD Acquisition, LLC (5) |
| 10.3 | Agreement dated May 27, 2009 which became effective June 23, 2009 by and between Kaupulehu Developments and WB KD Acquisition, LLC and WB KD Acquisition II, LLC (6) |
| 10.4 | Limited Liability Limited Partnership Agreement of KD Kona 2013 LLLP dated November 27, 2013 (7) |
| 10.5 | Limited Liability Limited Partnership Agreement of KKM Makai, LLLP dated November 27, 2013 (8) |
| 10.6 | |

Purchase and Sale Agreement, executed on June 8, 2017, with an as of date of May 10, 2017, between Barnwell of Canada, Limited and Anegada Oil Corp. (9)

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- 10.7 Purchase and Sale Agreement, dated December 14, 2017, between Barnwell of Canada, Limited and Mount Bastion Oil & Gas Corp. (10)
- 10.8 Purchase and Sale Agreement, dated July 19, 2018, between Barnwell of Canada, Limited and Octavian Oil Ltd. and Eagle Energy Inc. (11)
- 21 List of Subsidiaries
- 23.1 Consent of KPMG LLP
- 23.2 Consent of InSite Petroleum Consultants Ltd.
- 31.1 Certification of Chief Executive Officer Pursuant To Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer Pursuant To Section 302 of the Sarbanes-Oxley Act of 2002
- 32 Certification Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002
- 99.1 Reserve Report Summary prepared by InSite Petroleum Consultants Ltd.
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

-
- (1) Incorporated by reference to Exhibit 3.1 to Registrant's Form 10-K for the year ended September 30, 2013.
 - (2) Incorporated by reference to Exhibit 3.2 to Registrant's Form 10-K for the year ended September 30, 2014.
 - (3) Incorporated by reference to the registration statement on Form S-1 originally filed by the Registrant January 29, 1957 and as amended February 15, 1957 and February 19, 1957.
 - (4) Incorporated by reference to Registrant's Form 10-K for the year ended September 30, 1989.
 - (5) Incorporated by reference to Exhibit 2.1 to Registrant's Form 8-K filed on February 13, 2004.
 - (6) Incorporated by reference to Exhibit 10.1 to Registrant's Form 10-Q for the quarterly period ended June 30, 2009.
 - (7) Incorporated by reference to Exhibit 10.7 to Registrant's Form 10-Q for the quarterly period ended December 31, 2013.
 - (8) Incorporated by reference to Exhibit 10.8 to Registrant's Form 10-Q for the quarterly period ended December 31, 2013
 - (9) Incorporated by reference to Exhibit 1.1 to Registrant's Form 8-K filed on June 14, 2017.
 - (10) Incorporated by reference to Exhibit 1.1 to Registrant's Form 8-K filed on December 19, 2017.
 - (11) Incorporated by reference to Exhibit 2.1 to Registrant's Form 8-K filed on July 25, 2018.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BARNWELL INDUSTRIES, INC.
(Registrant)

/s/ Russell M. Gifford
Russell M. Gifford
Chief Financial
Officer,

By: Executive Vice
President,
Treasurer and
Secretary

Date: December 19, 2018

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

/s/ Alexander C. Kinzler
Alexander C. Kinzler
President, Chief Executive Officer,
Chief Operating Officer,
General Counsel and Director
Date: December 19, 2018

/s/ Russell M. Gifford
Russell M. Gifford
Executive Vice President,
Chief Financial Officer, Treasurer,
Secretary and Director
Date: December 19, 2018

/s/ James S. Barnwell
James S. Barnwell, Chairman of the Board
Date: December 19, 2018

/s/ Martin Anderson
Martin Anderson, Director
Date: December 19, 2018

/s/ Murray C. Gardner
Murray C. Gardner, Director
Date: December 19, 2018

/s/ Robert J. Inglima, Jr.
Robert J. Inglima, Jr., Director
Date: December 19, 2018

/s/ Kevin K. Takata
Kevin K. Takata, Director
Date: December 19, 2018

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