DIGITAL ANGEL CORP
Form 10-K
March 15, 2004

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

ý **Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2003.**

o **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from to .**

Commission file number: 1-15177

DIGITAL ANGEL CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**52-1233960**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
490 Villaume Avenue, South St. Paul, MN	**55075**
(Address of Principal Executive Offices)	(Zip Code)

(651) 455-1621
(Registrant s Telephone Number, Including Area Code)

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

Title of each class	Name of each exchange on which registered
Common Stock	**American Stock Exchange**
$.005 per share par value	

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

None

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. ý Yes o No

Indicate by check mark if the disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 ý

Indicate by check mark whether the registrant is an accelerated filer (as defined Rule 12b-2 of the Act). o Yes ý No

The aggregate market value of the registrant s common stock held by non-affiliates computed by reference to the price at which the common stock was last sold on June 30, 2003, the last business day of the registrant s most recently completed second fiscal quarter, was $ 24,606,751. The registrant has no non-voting common equity.

As of the close of business on March 10, 2004, there were 32,512,702 shares outstanding of the issuer s $0.005 per share par value common stock.

Documents Incorporated by Reference

Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K incorporate certain information by reference from the registrant s definitive Proxy Statement to be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the registrant s last fiscal year, which ended December 31, 2003.

DIGITAL ANGEL CORPORATION

TABLE OF CONTENTS

PART I

Item 1. Business

References in this Form 10-K to we, us, our, our company, and Digital Angel Corporation mean Digital Angel Corporation and our subsidia unless the context otherwise requires.

Overview

We were incorporated in Delaware on December 1, 1981 as Medical Advisory Systems, Inc. to provide medical assistance and technical products and services. On March 27, 2002, we completed a merger pursuant to which the former Digital Angel Corporation became a wholly-owned subsidiary of Medical Advisory Systems and was renamed Digital Angel Technology Corporation, and Medical Advisory Systems was renamed Digital Angel Corporation. In connection with the merger, Applied Digital Solutions, Inc. (ADS) contributed to Medical Advisory Systems all of its stock in Timely Technology, a wholly-owned subsidiary, and Signature Industries, an 85.0%-owned subsidiary. These two subsidiaries, along with Digital Angel Corporation, comprised ADS s Advanced Wireless Group (AWG). As a result of this contribution, Timely Technology became a wholly-owned subsidiary of Digital Angel Corporation and Signature Industries became an 85.0%-owned subsidiary. As a result of the merger and subsequent transactions, ADS owned 19,303,506 shares (or 66.9%) of our outstanding shares of common stock as of December 31, 2003. As of March 10, 2004, ADS owns 22,303,506 shares (or 68.5%) of our outstanding shares of common stock.

Our corporate headquarters are located at 490 Villaume Avenue, South St. Paul, MN 55075. Our telephone number is 651-455-1621.

Animal Applications

Our Animal Applications segment develops, manufactures and markets radio, electronic and visual identification devices for the companion animal, livestock, laboratory animal, fish and wildlife markets worldwide.

The Animal Applications segment s radio frequency identification products consist of miniature electronic microchips, readers and injection systems. We hold patents on our syringe-injectable microchip, which is encased in a glass or glass-like material capsule and incorporates an antenna and a microchip with a unique permanent identification code for the animal in which it is implanted. The microchip is typically injected under the skin using a hypodermic syringe, without requiring surgery. An associated reader device uses radio frequency to interrogate the microchip and read the code.

The Animal Applications segment s pet identification system involves the insertion of a microchip with identifying information in the animal. Readers at animal shelters, veterinary clinics and other locations can determine the animal s owner and other information. This pet identification system is marketed in the United States by Schering-Plough Animal Health Corporation under the brand name Home Again , in Europe by Merial Pharmaceutical, and in Japan by Dainippon Pharmaceutical. We have distribution agreements with a variety of other companies outside the United States to market our products. We have an established infrastructure with readers placed in approximately 70,000 global animal shelters and veterinary clinics. Over 2.0 million companion animals in the United States have been enrolled in the database, and more than 5,000 pet recoveries occur in the United States each month.

In addition to pursuing the market for permanent identification of companion animals, the Animal Applications segment also produces visual and electronic identification products, principally for livestock producers. Visual identification products typically include numbered ear tags. The Company has marketed visual identification products for livestock since the 1940s. Electronic identification products for livestock are currently being evaluated by livestock producers. Currently, sales of visual products represent virtually all of our sales to livestock producers. In the year ended December 31, 2003, the Animal Applications segment represented 65.2% of our consolidated revenue.

Wireless and Monitoring

This segment is developing advanced technology, referred to as Digital Angel ™ technology, to gather location and local sensory data and to communicate that data to an operations center. The technology is the integration and miniaturization into marketable products of three technologies: wireless communications (such as cellular), sensors (including bio-sensors) and position location technology (including global positioning systems (GPS) and other systems). The development of the Digital Angel ™ technology began in April 1998. The Digital Angel ™ technology continues to be in the development stage and the Company is uncertain when this technology will be incorporated into any products. The first Digital Angel TM technology product,a biosensor chip linked to GPS,was launched in November 2001. This technology has not generated any significant revenue through December 31, 2003. In the year ended December 31, 2003, the Wireless and Monitoring segment represented 0.4% of our consolidated revenue. The revenue in 2003 relates primarily to a software support contract, assumed from Timely Technology. The contract was terminated in February 2003.

GPS and Radio Communications

Signature Industries, located in the United Kingdom, operates our GPS and Radio Communications business. This segment consists of the design, manufacture and support of secure GPS enabled search and rescue equipment (such as personal locator beacons) and intelligent communications products and services for telemetry, mobile data and radio communications applications serving commercial and military markets. This segment includes the design, manufacture and distribution of intrinsically safe sounders (horn alarms) for industrial use and other electronic components. This segment also includes high grade communications equipment leasing and complementary data systems that customers can use to locate and monitor their assets. In the year ended December 31, 2003, the GPS and Radio Communications segment represented 28.2% of our consolidated revenue.

Medical Systems

This segment is comprised of a staff of logistics specialists and physicians operating from our medical telecommunications response center that provides medical assistance services and interactive medical information services to people traveling anywhere in the world, 24 hours per day, 7 days per week. Assistance is provided by telephone, satellite, high frequency radio, fax, Internet and telex. The primary market for our services is the maritime industry and the international travel insurance and assistance industry. Services include coordination of medical care, provision of general medical information, physician consultation, translation assistance, claims handling and cost containment on behalf of assistance companies, insurance companies or managed care organizations. We also offer medical training services to the maritime industry.

We also sell a variety of kits containing pharmaceutical and medical supplies. Included in the kits are prescription and nonprescription medications, controlled substances, medical equipment and expendable medical supplies. The kits include our proprietary pharmaceutical manual, which provides information on proper storage, use and inventory control. All medications are specially labeled for use in our system. We directly supply pharmaceuticals to our maritime and airline customers through our pharmaceutical warehouse facility located in Owings, Maryland. In the year ended December 31, 2003, the Medical Systems segment represented 6.2% of our consolidated revenue.

Financial Information About Segments

Revenues from our various segments over the prior three years can be broken down as follows:

	For the Years Ended December 31,		
(In thousands)	**2003**	**2002**	**2001**
Animal Applications	$ 23,948	$ 20,991	$ 22,247
Wireless and Monitoring	122	1,503	2,520
GPS and Radio Communications	10,362	10,022	11,144
Medical Systems	2,280	1,727	

Refer to the segment information in Note 17 to our Financial Statements.

Recent Developments

Acquisition

On January 22, 2004, Digital Angel Corporation completed the acquisition of OuterLink Corporation pursuant to an Agreement and Plan of Merger dated November 2, 2003, by and among Digital Angel Corporation, DA Acquisition and OuterLink Corporation. Pursuant to the terms of the agreement, OuterLink Corporation became a wholly-owned subsidiary of Digital Angel Corporation.

Under the terms of the agreement, Digital Angel Corporation issued 100,000 shares of its Series A preferred stock. Approximately 20% of the shares are being held in escrow as security for indemnified claims. The Series A preferred stock is convertible into four million shares of the Company s common stock when the volume weighted average price of the Company s common stock equals or exceeds $4.00 per share for ten consecutive trading days. The preferred stockholders have the right to designate a Director to Digital Angel Corporation s Board of Directors prior to July 22, 2004.

OuterLink Corporation provides real-time, satellite-based automated tracking, wireless data transfer and two-way messaging with large fleets of vehicles, such as utility trucks, helicopters, fixed-wing aircraft, long- and short-haul trucks, service vehicles and ships. OuterLink Corporation s customer base includes various branches of the U.S. Department of Homeland Security, including the U.S. Border Patrol and the U.S. Customs Service.

OuterLink Corporation leases 10,471 square feet in an office building in Concord, Massachusetts. The lease expires August 31, 2004 with no renewal options. Rent is $18,000 a month.

Recent Changes in Management

We have recently experienced numerous changes with respect to our senior management. On September 4, 2003, Randolph K. Geissler resigned as Chief Executive Officer of Digital Angel Corporation after serving in such position since the March 2002 merger between Digital Angel Corporation and Medical Advisory Systems. From September 2000 until March 2002, Mr. Geissler served as Chief Executive Officer of Digital Angel Corporation, the predecessor corporation to our Company.

Following Mr. Geissler s resignation, the Company appointed Kevin McLaughlin as the interim Chief Executive Officer of Digital Angel Corporation while the Company conducted a formal search for a permanent Chief Executive Officer. At the time of his appointment as interim Chief Executive Officer, Mr. McLaughlin was serving as President and Chief Operating Officer of Applied Digital Solutions. On November 3, 2003, the Company announced that it had agreed to appoint Van Chu as Chief Executive Officer of the Company. At the time of this announcement, Mr. Chu was Chief Executive Officer of OuterLink Corporation, a company that was acquired by Digital Angel Corporation in a merger on January 22, 2004. Mr. Chu assumed his duties as Chief Executive Officer of Digital Angel Corporation on November 7, 2003.

Mr. Chu was terminated as Chief Executive Officer of the Company on January 12, 2004. On January 12, 2004, the Company s board of directors appointed Kevin N. McGrath as President and Chief Executive Officer of the Company.

Stock Issuance to ADS

On March 1, 2004, the Company issued 3,000,000 shares of its common stock to Applied Digital Solutions (ADS) pursuant to the Stock Purchase Agreement (Stock Purchase Agreement) with ADS dated August 14, 2003. The Stock Purchase Agreement provided for ADS to purchase 3,000,000 shares of the Company s common stock at a price of $2.64 per share and a warrant (the ADS Warrant) to purchase up to 1,000,000 shares of the Company s common stock, which is exercisable for five years beginning February 1, 2004, at a price per share of $3.74 payable in cash or shares of common stock of ADS. The consideration for the sale of the Company s 3,000,000 shares and the warrant was payable in ADS common stock having an aggregate value of $7.92 million. The number of shares of ADS common stock received by Digital Angel Corporation as payment of the purchase price was 19,800,000 shares of ADS s common stock, exclusive of the proceeds which may be received when the warrant is exercised.

As part of this transaction , the Company issued five-year warrants to purchase up to 500,001 shares of the Company s stock at an exercise price of $2.64 per share anytime on or after February 1, 2004 to the holders of the ADS 8.5% Convertible Exchangeable Debentures.

Competition

Principal methods of competition in all of our segments include geographic coverage, service and product performance.

Animal Applications

The animal identification market is highly competitive. The principal competitors in the visual identification market are AllFlex USA, Inc. and Y-Tex Corporation and the principal competitors in the electronic identification market are AllFlex, USA, Inc., Datamars SA and Avid Plc. We believe that our strong intellectual property position and our reputation for high quality products are our competitive advantages.

Wireless and Monitoring

The principal competitor for the Digital Angel ™ product is Whereify Wireless, Inc. Other competitors in this market include National Scientific, Child Locate, Pomals, Inc., ACR Electronics, Inc., Airbiquity and TCS. When available for sale, we believe that the Digital Angel ™ product features will include the device s ability to report the body temperature and condition of the person being monitored, capability to work on all three GSM frequencies used in the world and ability to use interactive voice response to monitor the wearer s condition and location.

GPS and Radio Communications

The principal competitors for the GPS and Radio Communications segment are Boeing North American Inc., General Dynamics Decision Systems, Tadiran Spectralink Ltd., Becker Avionic Systems, and ACR Electronics, Inc. We believe that being first to market with GPS in our search and rescue beacons and the use of our search and rescue beacons in over forty countries are competitive advantages. In addition, the barriers to entry in this market are high due to the technical demands of the market.

Medical Systems

The Medical Systems segment competes in the maritime medical advice market with a few foreign government-operated entities. Further, there are several U.S. companies, as well as hospitals, that provide radio medical advice to ships at sea. While we believe that our first to market status and the nature of our service methodology are competitive advantages, the barriers to entry into this market are relatively low.

The Medical Systems segment also competes in the maritime pharmaceutical supply business. There are several U.S. companies that compete in this market; one of these competitors is dominant in this market. We believe the operational methodology of our pharmacy and the synergy created by providing advice services and pharmacy services are competitive advantages. However, the barriers to entry into this market are relatively low.

Raw Materials

We did not experience any significant or unusual problems in the purchase of raw materials or commodities during 2002 or 2003. We depend on a single production arrangement with a vendor for the manufacture of our patented syringe-injectable microchips that are used in our implantable electronic identification products. While we are dependent, in certain situations, on a limited number of vendors to provide certain raw materials and components, during the recent past, we have not experienced significant problems or issues procuring any essential materials, parts or components.

Patents and Trademarks

We own various patents and trademarks which we consider in the aggregate to constitute a valuable asset. We consider several of our patents offer a significant competitive advantage and/or barriers to entry in the Animal Applications segments.

Backlog

We generally produce goods to fill orders received and anticipated orders based on distributors forecasts, and we also maintain inventories of finished goods to fill customer orders with short lead times. As a result, we generally do not have a significant backlog of orders, and any such backlog is not indicative of future sales.

Research and Development

During 2003, we spent $4.9 million ($2.9 million in the Animal Applications segment and $1.0 million each in the Wireless and Monitoring and GPS and Radio Communications segments) on research and development activities relating to the development of new products or improvements of existing products. We spent $3.0 million in 2002 and $5.2 million in 2001 on research and development activities.

Environmental Matters

We do not anticipate any material effect on our capital expenditures, earnings or competitive position due to compliance with government regulations involving environmental matters.

Seasonality

Our Animal Applications segment s revenues and operating income can be affected by the timing of animal reproduction cycles. Our other business segments are not considered to be seasonal.

Employees

As of March 10, 2004 we have 240 full time employees, including 12 in management, 18 in sales positions, 45 in administrative positions, 47 in technical positions and 118 in production positions. We also have one part-time physician and eight physicians under contract to provide services to us. Our Animal Applications production workforce is party to a collective bargaining agreement which expires May 31, 2005. We believe our relations with our employees are good.

Government Regulation

We are subject to federal, state and local regulation in the United States, including the FDA and Federal Communications Commission (FCC). We are also subject to regulation by government entities in other countries.

United States Regulation

Animal products for food producing animals have been reviewed by the FDA s Center for Veterinary Medicine and the FDA has determined that our product, as presently configured, is unregulated. As of December 31, 2003, Digital Angel products did not incorporate FDA regulated components. However, any applications directly related to medical information will require further FDA

approval. The Digital Angel products have also been approved by the FCC. Our products coated with insecticide require approval by the United States Environmental Protection Agency, which has been obtained.

The FCC has licensed the company to operate a limited coast, high frequency single-side-band (SSB) radio station. This radio station is used in connection with our maritime services. The United States Department of Justice and the United States Drug Enforcement Administration (DEA) also monitor our distribution of controlled substances. The DEA and the Maryland Board of Pharmacy have licensed the Company for the distribution of pharmaceuticals. We do not hold any medical licenses, but we use the services of licensed physicians.

We are required to comply with the Health Insurance Portability and Accountability Act (HIPAA), which took effect on April 15, 2003. HIPAA required us to implement certain procedures to maintain the privacy of our customer s medical information. We were fully compliant with the requirements of HIPAA by April 15, 2003.

Regulation Abroad

Our products are subject to compliance with applicable regulatory requirements in those foreign countries where our products are sold. The contracts we maintain with our distributors in these foreign countries generally require the distributor to obtain all necessary regulatory approvals from the governments of the countries in which these distributors sell our products.

Financial Information About Geographic Areas

Revenues are attributed to geographic areas based on the location of the assets producing the revenues. Information concerning principal geographic areas as of and for the years ended December 31, 2003, 2002 and 2001 is as follows:

(In thousands)	United States	United Kingdom/Spain	Consolidated / Combined
2003			
Net revenue	$ 26,350	$ 10,362	$ 36,712
Long-lived assets excluding goodwill and other intangible assets, net	6,287	1,378	7,665
2002			
Net revenue	$ 24,221	$ 10,022	$ 34,243
Long-lived assets excluding goodwill and other intangible assets, net	6,697	1,072	7,769
2001			
Net revenue	$ 24,767	$ 11,144	$ 35,911
Long-lived assets excluding goodwill and other intangible assets, net	13,276	1,200	14,476

Forward-Looking Statements and Associated Risks

We make written and oral statements from time to time regarding our business and prospects, such as projections of future performance, statements of management s plans and objectives, forecasts of market trends, and other matters that are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21F of the Securities Exchange Act of 1934. Statements containing the words or phrases *will likely result, are expected to, will continue, is anticipated, estimates, projects, believes, expects, anticipates, intends, target, goal, plans, objective, should* or similar expressions identify forward-looking statements, which may appear in documents, reports, filings with the Securities and Exchange Commission, news releases, written or oral presentations made by officers or other representatives made by us to analysts, stockholders, investors, news organizations and others, and discussions with management and other representatives of us. For such statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

Our future results, including results related to forward-looking statements, involve a number of risks and uncertainties. No assurance can be given that the results reflected in any forward-looking statements will be achieved. Any forward-looking statement made by or on behalf of us speaks only as of the date on which such statement is made. Our forward-looking statements are based on assumptions that are sometimes based upon estimates, data, communications and other information from suppliers, government agencies and other sources that may be subject to revision. Except as required by law, we do not undertake any obligation to update or keep current either (i) any forward-looking statement to reflect events or circumstances arising after the date of such statement, or (ii) the important factors that could cause our future results to differ materially from historical results or trends, results anticipated or planned by us, or which are reflected from time to time in any forward-looking statement which may be made by or on behalf of us.

In addition to other matters identified or described by us from time to time in filings with the SEC, there are several important factors that could cause our future results to differ materially from historical results or trends, results anticipated or planned by us, or results that are reflected from time to time in any forward-looking statement that may be made by or on behalf of us. Some of these important factors, but not necessarily all important factors, include the following:

Recent changes in our senior management could have an adverse effect on our financial results.

We have recently experienced numerous changes with respect to our senior management. On September 4, 2003, Randolph K. Geissler resigned as Chief Executive Officer of Digital Angel Corporation after serving in such position since the March 2002 merger between Digital Angel Corporation and Medical Advisory Systems. From September 2000 until March 2002, Mr. Geissler served as Chief Executive Officer of Digital Angel Corporation, the predecessor corporation to our Company.

Following Mr. Geissler s resignation, the Company appointed Kevin McLaughlin as the interim Chief Executive Officer of Digital Angel Corporation while the Company conducted a formal search for a permanent Chief Executive Officer. At the time of his appointment as interim Chief Executive Officer, Mr. McLaughlin was serving as President and Chief Operating Officer of Applied Digital Solutions. On November 3, 2003, the Company announced that it had agreed to appoint Van Chu as Chief Executive Officer of the Company. At the time of this announcement, Mr. Chu was Chief Executive Officer of OuterLink Corporation, a company that was acquired by Digital Angel Corporation on January 22, 2004. Mr. Chu assumed his duties as Chief Executive Officer of Digital Angel Corporation on November 7, 2003.

Mr. Chu was terminated as Chief Executive Officer of the Company on January 12, 2004. On January 12, 2004, the Company s board of directors appointed Kevin N. McGrath as President and Chief Executive Officer of the Company.

Since we depend heavily on the skills of those persons holding senior management positions, the loss of any senior executive could materially adversely affect our financial results. These senior executives, in many cases, have strong relationships with our customers and suppliers. Therefore, the loss of the services of such senior executives or any general instability in the composition of our senior management could have a negative impact on our relationship with these customers and suppliers. We cannot ensure that we will be able to retain our senior executives and this uncertainty could have a material negative impact on our business.

As of March 10, 2004, our majority stockholder, Applied Digital Solutions, owns 68.5% of our common stock, is able to completely control the board of directors and may support actions that conflict with the interests of the other stockholders.

As of March 10, 2004, Applied Digital Solutions is the beneficial owner of 68.5% of our common stock, and it controls us with respect to all matters upon which our stockholders may vote, including the selection of the Board of Directors, mergers, acquisitions and other significant corporate transactions. There can be no assurance as to how Applied Digital Solutions may support actions that are contrary to or conflict with the interests of the other stockholders.

Our stockholders will experience dilution in the event Laurus Master Fund exercises its right to convert certain debt owed by us into shares of our common stock.

On July 31, 2003, the Company issued to Laurus Master Fund a two-year secured convertible note in the original principal amount of $2,000,000. The secured convertible note is convertible, at Laurus Master Fund s option, into shares of the Company s common stock at a per share price of $2.33. In connection with the issuance of the secured convertible note, we also issued to Laurus Master Fund a five-year warrant to purchase 125,000 shares of our common stock at exercise prices ranging from $2.68 to $3.38 per share. The Company has the ability to prepay the secured convertible note at 110% to 125% of the prepayment amount.

On August 28, 2003, we issued a three-year secured revolving convertible note in the principal amount of $3,500,000 and a three-year secured minimum borrowing convertible note in the principal amount of $1,500,000 to Laurus Master Fund. Beginning May 28, 2004, each of these notes is convertible, at Laurus Master Fund s option, into shares of our common stock at $2.64 per share. In connection with the issuance of these notes, Laurus Master Fund also acquired a five-year warrant to purchase 115,000 shares of our common stock at exercise prices ranging from $2.55 to $2.95 per share. The Company has the ability to prepay the secured minimum convertible note for a 1% to 3% fee.

Our issuance of shares to Laurus Master Fund from any conversion of these notes, or exercise of the warrants may result in substantial dilution to other Digital Angel Corporation stockholders. In addition, Laurus Master Fund may offer and sell any and all of the shares of our common stock received in connection with conversion of the notes, or exercise of the warrants at prices and times to be determined in its sole discretion. There is no independent or third-party underwriter involved in the offering of the shares of our common stock acquired by Laurus Master Fund and there can be no guarantee that any disposition of those shares will be completed in a manner that is not disruptive to the trading market for our common stock.

Our stockholders will experience dilution upon conversion of the Series A Preferred Stock issued by the Company in the OuterLink Corporation acquisition.

On January 22, 2004, the Company acquired OuterLink Corporation of Concord, Massachusetts, in a merger. In connection with the acquisition, Digital Angel Corporation issued 100,000 shares of its Series A Preferred Stock. The Series A Preferred Stock is convertible into four million shares of Digital Angel Corporation common stock when the volume-weighted average price of Digital Angel Corporation s common stock equals or exceeds $4.00 per share for ten consecutive trading days. The issuance of Digital Angel common stock upon conversion of the Series A Preferred Stock issued to the OuterLink stockholders will result in dilution to other Digital Angel Corporation stockholders.

The terms of our debt obligations to Laurus Master Fund subject us to the risk of foreclosure on substantially all of our assets.

We may not have sufficient funds to repay Laurus Master Fund when the obligations on the convertible note, minimum borrowing note and revolving note mature. Accordingly, we may be required to obtain the funds necessary to repay these obligations either through refinancing, the issuance of additional equity or debt securities or the sale of assets. There can be no assurance that we can obtain the funds needed, if any, to repay the obligations from any one or more of these other sources on favorable economic terms or at all. If we are unable to obtain funds to repay this indebtedness, we may be forced to dispose of assets or take other actions on disadvantageous terms, which could result in losses to Digital Angel Corporation and could have a material adverse effect on our financial condition.

Our earnings will decline if we write off goodwill and other intangible assets.

As of December 31, 2003, we had recorded goodwill of $45.1 million. On January 1, 2002, we adopted SFAS No. 142, Goodwill and Other Intangible Assets. SFAS No. 142 requires that goodwill and certain intangibles no longer be amortized but instead tested for impairment at least annually by applying a fair value based test. During the fourth quarter of 2003, the Company performed the annual impairment test for goodwill using a fair value based approach, primarily discounted cash flows. An evaluation of the Medical Systems reporting unit indicated that $2.4 million of goodwill was impaired. Additionally, management estimated that certain intangible assets at our Medical Systems reporting unit were impaired by $0.6 million. Accordingly, the Company recorded an impairment charge of $3.0 million in the fourth quarter of 2003, which is included in asset impairment in the 2003 statement of operations. During the fourth quarter of 2002, we recorded an impairment charge of $57.4 million for goodwill at our Wireless and Monitoring and Medical Systems reporting units.

We will assess the fair value of our goodwill annually or earlier if events occur or circumstances change that would more likely than not reduce the fair value of our goodwill below its carrying value. These events or circumstances would include a significant change in business climate, including a significant, sustained decline in an entity s market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of the business, or other factors. If we determine that significant impairment has occurred, we would be required to write off the impaired portion of goodwill. Impairment charges could have a material adverse effect on our financial condition and results of operations.

The exercise of options and warrants outstanding and available for issuance may adversely affect the market price of our common stock.

As of December 31, 2003, we had 8,707,000 options and 3,029,000 warrants outstanding to purchase from us a total of 11,736,000 shares of common stock at exercise prices ranging from $0.05 to $10.50 per share. In addition, as of December 31, 2003, we had 1,157,000 additional shares of common stock which may be issued in the future under our stock option plans. The exercise of outstanding options and warrants and the sale in the public market of the shares purchased upon such exercise may adversely affect the market price of our common stock. In 2004, 666,000 options were exercised and proceeds on the options exercised were $942,000.

We may continue to incur losses.

We incurred a net loss of $9.5 million for the year ended December 31, 2003. We also recorded a net loss of $92.4 million and $17.4 million for the years ended December 31, 2002 and 2001, respectively. Included in the $92.4 million loss for the year ended December 31, 2002 is a goodwill impairment charge of $57.4 million, an asset impairment charge of $6.4 million, and a $18.7 million charge arising from the remeasurement of options in connection with the 2002 merger. No assurance can be given as to whether we will achieve profitability, if at all. Profitability depends on many factors, including the success of marketing programs, the maintenance and reduction of expenses, and the ability to coordinate successfully the operations of our business units. If we fail to achieve and maintain sufficient profitability within the time frame expected by investors, the market price of our common stock may be adversely affected.

The Wireless and Monitoring segment is expected to incur future losses and may not achieve profitability.

We have invested approximately $15.4 million in the Digital Angel™ product for the period from April 1998 through December 31, 2003. We expect the Wireless and Monitoring segment to incur additional development, sales and marketing, and other general expenses. As a result, the Wireless and Monitoring segment is expected to incur losses for the foreseeable future and will need to generate significant revenues to achieve profitability. There can be no assurance that the segment will achieve profitability or, if profitability is achieved, that it will be sustained.

The Wireless and Monitoring segment is in the initial stage of operations and may encounter unforeseen difficulties that could negatively affect our business.

The Wireless and Monitoring segment is in the initial stage of operations and has generated no substantial revenue. As a result, it has minimal operating history upon which to base an evaluation of its current business and future prospects. Moreover, this segment does not currently have any contracts in place that will provide any significant revenue. Because of this segment s lack of an operating history, management has limited insight into trends that may emerge and could materially adversely affect its business. This segment s prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in new and rapidly evolving markets. This segment could encounter risks including, but not limited to, the risk that the Wireless and Monitoring segment will be unable to:

- develop and market Digital Angel products by integrating and miniaturizing new technologies into marketable products and services;
- build a customer base;
- generate revenues;
- compete successfully in a highly competitive market;
- access sufficient capital to support growth;
- recruit and retain qualified employees;
- introduce new products and services; and
- build technology and support systems.

Each of these risks could lead to unforeseen expenses or losses.

The Digital Angel™ technology is not proven, and we may not be able to develop products from this unproven technology.

The Wireless and Monitoring segment depends on the development, integration, miniaturization and successful marketing of several advanced technologies that have not previously been integrated or used as anticipated by this segment. The Wireless and Monitoring segment depends upon advanced technology, including wireless communication, biosensors, motion determination and global positioning system capabilities. Many of these technologies are unproven or relatively new. No assurances can be given as to when or if a Digital Angel product will be successfully marketed. Our ability to develop and commercialize products based on our proprietary technology will depend on our ability to develop products internally on a timely basis or to enter into arrangements with third parties to provide these functions. Our failure to develop and commercialize products successfully could have a material adverse effect on our financial condition and results of operations.

Infringement by third parties on our intellectual property or development of substantially equivalent proprietary technology by our competitors could negatively affect our business.

Our success depends significantly on our ability to maintain patent and trade secret protection, to obtain future patents and licenses, and to operate without infringing on the proprietary rights of third parties. There can be no assurance that the measures we have taken to protect our intellectual property will prevent its misappropriation or circumvention of our intellectual property. In addition, there can be no assurance that any patent application, when filed, will result in an issued patent, or that our existing patents, or any patents that may be issued in the future, will provide us with significant protection against competitors. Moreover, there can be no assurance that any patents issued to or licensed by us will not be infringed upon or circumvented by others. Litigation to establish the validity of patents, to assert infringement claims against others, and to defend against patent infringement claims can be expensive and time-consuming, even if the outcome is in our favor. We also rely to a lesser extent on unpatented proprietary technology, and no assurance can be given that others will not independently develop substantially equivalent proprietary information, techniques or processes or that we can meaningfully protect our rights to such unpatented proprietary technology. Infringement on our intellectual property or the development of substantially equivalent technology by our competitors could have a material adverse effect on our business.

Domestic and foreign government regulation and other factors could impair our ability to develop and sell our products in certain markets.

The electronic animal identification market can be negatively affected by such factors as food safety concerns, consumer perceptions regarding cost and efficacy, international technology standards, national infrastructures, and slaughterhouse removal of microchips.

We are also subject to federal, state and local regulation in the United States, including regulation by the FDA, FCC and the USDA, and in other countries. We cannot predict the extent to which we may be affected by further legislative and regulatory developments concerning our products and markets. We are required to obtain regulatory approval before marketing most of our products. The regulatory process can be very time-consuming and costly, and there is no assurance that we will receive the regulatory approvals necessary to sell our products under development. Regulatory authorities also have the authority to revoke approval of previously approved products for cause, to request recalls of products and to close manufacturing plants in response to violations. Any such regulatory action, including the failure to obtain such approval, could prevent us from selling, or materially impair our ability to sell, our products in certain markets and could negatively affect our business.

We rely heavily on sales to government contractors of our animal identification products, and any decline in the demand by these customers for our products could negatively affect our business.

The principal customers for electronic identification devices for fish are government contractors that rely on funding from the United States government. Since these contractors rely heavily on government funds, any decline in the availability of such funds could result in a decreased demand by these contractors for our products. Any decrease in demand by such customers could have a material adverse effect on our financial condition and results of operations and result in a decline in the market value of our common stock.

We depend on a single production arrangement with Raytheon Microelectronics Espana, SA for our patented syringe-injectable microchips, and the loss of or any significant reduction in the production could have an adverse effect on our business.

We rely solely on a production arrangement with Raytheon Microelectronics Espana, SA (Raytheon) for the manufacture of our patented syringe-injectable microchips that are used in all of our implantable electronic identification products. In addition, we have no formal written agreement with Raytheon for the production of our microchips. Raytheon utilizes our proprietary technology and our equipment in the production of our syringe-injectable microchips. The termination, or any significant reduction, by Raytheon of the assembly of our microchips or a material increase in the price charged by Raytheon for the assembly of our microchips could have an adverse effect on our financial condition and results of operations. In addition, Raytheon may not be able to produce sufficient quantities of the microchips to meet any significant increased demand for our products or to meet any such demand on a timely basis. Any inability or unwillingness of Raytheon to meet our demand for microchips would require us to utilize an alternative production arrangement and remove our automated assembly production machinery from the Raytheon facility, which would be costly and could delay production. Moreover, if Raytheon terminates our production arrangement, we cannot ensure that the assembly of our microchips from another source would be on comparable or acceptable terms. The failure to make such an alternative production arrangement could have an adverse effect on our business.

We depend on principal customers.

For the year ended December 31, 2003, we had one customer which accounted for 11.8% of our consolidated revenues. Our four largest customers, in aggregate, accounted for 30.9% of our consolidated revenues in the year ended December 31, 2003. The GPS and Radio Communications segment is heavily dependent on contracts with domestic government agencies and foreign governments, including the United Kingdom, primarily relating to military applications. The loss of, or a significant reduction in, orders from these or our other major customers could have a material adverse effect on our financial condition and results of operations.

We compete with other companies in the visual and electronic identification market, and the products sold by our competitors could become more popular than our products or render our products obsolete.

The market for visual and electronic identification products is highly competitive. We believe that our principal competitors in the visual identification market for livestock are AllFlex USA and Y-Tex Corporation and that our principal competitors in the electronic identification market are AllFlex USA, Datamars SA and Avid Plc.

In addition, other companies could enter this line of business in the future. Certain of our competitors have substantially greater financial and other resources than us. We may not be able to compete successfully with these competitors, and those competitors may develop or market technologies and products that are more widely accepted than ours or that would render our products obsolete or noncompetitive.

Currency exchange rate fluctuations could have an adverse effect on our sales and financial results.

We generate a portion of our sales and incur a portion of our expenses in currencies other than U.S. dollars. To the extent that we are unable to match revenues received in foreign currencies with costs paid in the same currency, exchange rate fluctuations in any such currency could have an adverse effect on our financial results.

We depend on a small team of senior management, and we may have difficulty attracting and retaining additional personnel.

Our future success will depend in large part upon the continued services and performance of senior management and other key personnel. If we lose the services of any member of our senior management team, our overall operations could be materially and adversely affected. In addition, our future success will depend on our ability to identify, attract, hire, train, retain and motivate other highly skilled technical, managerial, marketing, purchasing and customer service personnel when they are needed. Competition for these individuals is intense. We cannot ensure that we will be able to successfully attract, integrate or retain sufficiently qualified personnel when the need arises. Any failure to attract and retain the necessary technical, managerial, marketing, purchasing and customer service personnel could have a material adverse effect on our financial condition and results of operations.

Item 2. Properties

We own a 79,692 square foot (gross building area) masonry and steel industrial two-building complex located in South St. Paul, Minnesota that is currently occupied by the Animal Application division s administrative, sales, engineering and manufacturing operations, plus two lessees. We occupy 53,800 square feet of the space. The portions of the buildings that we occupy have 6,000 square feet of office area, nine loading docks, one drive-in door and 13 to 16 foot clear ceilings. Our lessees occupy warehouse space under leases which expire April 30, 2004 and June 30, 2004. After the expiration dates, the leases will be on month to month terms. Monthly rental income from lessees is $12,000. The South St. Paul property is encumbered by a mortgage in the aggregate principal amount of $2.4 million.

Our Medical Systems division s facilities currently consist of a campus of three buildings: a 12,000 square foot facility that contains two custom designed call centers and administrative offices; a 4,800 square foot facility that contains our computer technology center and our maritime pharmacy; and a third facility consisting of a two-story structure with approximately 3,000 square feet of usable office and storage space. The three buildings are owned by us and located on 1.44 acres of commercial land in Owings, Maryland, approximately 20 miles from Washington, D.C. The Owings, Maryland property is encumbered by a mortgage in the aggregate principal amount of $910,000.

Our Wireless and Monitoring division currently leases a 3,000 square foot facility in a modern technology park in Riverside, California. The facility contains office and engineering space and a data processing technology center. The facility in on a month to month lease. Rent payments are $3,000 per month.

Our GPS and Radio Communications division leases, under a long-term lease, expiring September, 2042, a 60,000 square foot building located in Thamesmead, London that is currently occupied by administrative, sales, engineering and manufacturing personnel. In addition, this division leases three single-story buildings totaling 5,400 square feet within a small industrial estate in Springburn, Glasgow for manufacturing operations. Rent payments for the GPS and Radio Communication segment s facilities are $36,000 a month.

We consider our properties to be suitable and adequate for their present purposes, well maintained and in good operating condition.

Item 3. Legal Proceedings

Wurts Litigation

In February 2003, an action was filed in the Middlesex County Superior Court in the Commonwealth of Massachusetts. Our subsidiary, OuterLink Corporation, as well as a significant stockholder of OuterLink and a principal of the significant stockholder are named as defendants. Such principal was a director of OuterLink. The complaint alleged breach of an August 25, 1999 employment contract. The plaintiff was President and CEO of OuterLink Corporation from July 1999 through August 2002. The Complaint seeks damages based principally on a contractual severance provision that allegedly provided for four months of compensation for every year or fraction thereof served prior to termination. At the time of termination, the complaint alleges that the plaintiff s salary was $250,000 per year. The defendants answered denying all liability and counterclaimed. Discovery will be completed in this matter shortly and the Defendants intend to vigorously defend this matter and pursue their counterclaims. The ultimate outcome of this proceeding cannot be predicted at this time and we are currently unable to determine the potential effect of this litigation on its consolidated financial position, results of operation or cash flows.

E-Research Litigation

In June 2002, eResearch Technology, Inc. f/k/a Premier Research Worldwide, Ltd. (ERT) commenced a proceeding against U.S. Bank National Association, subsequently intervened by us in the New Jersey state court and subsequently removed to the United States District Court for the District of New Jersey. This suit was commenced to pursue alleged damages of approximately $350,000 due to the Company s and US Bank s alleged failure to register transfers of restricted Digital Angel shares sold by ERT in May 2002. The Company has agreed to indemnify US Bank for all damages and reasonable costs relating to this litigation. We asserted a counterclaim against ERT based on ERT s breach of a license agreement and services agreements between the parties that resulted in the original issuance by us of 550,000 restricted common shares to ERT. The damages to us exceed $4 million and this amount does not include the share of profits which we seek to recover had ERT not breached the agreements. Furthermore, the alleged damages sought by the plaintiff in this matter do not take into account plaintiff s duty to mitigate damages which if discharged would have resulted in a profit to ERT. The ultimate outcome of this proceeding cannot be predicted at this time and we are is currently unable to determine the potential effect of this litigation on its consolidated financial position, results of operation or cash flows.

Electronic Identification Devices Litigation

In February 2004, Electronic Identification Devices, Ltd. (EID) commenced a Declaratory Judgment Action against us in the United States District Court for the Western District of Texas. This action seeks a declaration of patent non-infringement relating to our syringe implantable identification transponders. The lawsuit alleges that EID has developed a new transponder that it believes does not infringe on our patent. The lawsuit acknowledges that we obtained a Judgment of infringement and two Contempt Orders against EID based on selling certain systems that infringed our patent in 1997, 1998 and 1999. We have not yet answered the Complaint and given the very early stage of this matter, the ultimate outcome of this proceeding cannot be predicted at this time. We are currently unable to determine the potential effect of this litigation on our consolidated financial position, results of operation or cash flows.

Item 4. Submission of Matters to a Vote of Security Holders

No matters were submitted to a vote of our security holders during the fourth quarter of the fiscal year covered by this report.

PART II

Item 5. Market for Registrant s Common Equity and Related Stockholder Matters

Our common stock is traded on the American Stock Exchange (AMEX) under the symbol DOC. The following table shows the high and low sales prices for our common stock as reported on AMEX for the periods indicated. On March 10, 2004, the last reported sale price of our common stock was $3.30. As of March 10, 2004, there were 32,562,702 shares of our common stock issued and 32,512,702 shares of our common stock outstanding, and we had 149 stockholders of record.

	High		Low	
YEAR ENDED DECEMBER 31, 2003				
Fourth Quarter	$	5.00	$	1.75
Third Quarter	$	2.74	$	1.78
Second Quarter	$	3.00	$	1.26
First Quarter	$	2.55	$	0.98
YEAR ENDED DECEMBER 31, 2002				
Fourth Quarter	$	3.02	$	2.09
Third Quarter	$	3.74	$	1.50
Second Quarter	$	7.75	$	2.01
First Quarter	$	7.35	$	2.90

We did not declare or pay dividends on our common stock in the years ended December 31, 2003 or 2002. We have never paid dividends on our common stock and do not anticipate paying dividends in the foreseeable future.

Item 6. **Selected Financial Data**

The following selected financial data should be read in conjunction with our financial statements and related notes, Management s Discussion and Analysis of Financial Condition and Results of Operations, and other financial information appearing elsewhere in this annual report on Form 10-K. We derived the following historical financial information from the consolidated financial statements of Digital Angel Corporation for the years ended December 31, 2003 and 2002 which have been audited by Eisner LLP and the combined financial statements of the Advanced Wireless Group for the years ended December 31, 2001, 2000 and

1999, which have been audited by PricewaterhouseCoopers LLP. PricewaterhouseCoopers LLP s report on the combined financial statements contained an explanatory paragraph expressing doubt about AWG s ability to continue as a going concern. In addition, PricewaterhouseCoopers LLP was dismissed as AWG s independent accountant on April 11, 2002. The equity accounts of AWG have been restated based on the common shares received by the former shareholders of AWG in the merger.

(Amounts in thousands, except per share data)	**For the Years Ended December 31,**				
	2003	**2002 (1)**	**2001**	**2000(2)**	**1999**
Results of Operations Data:					
Product revenue	$ 33,748	$ 30,946	$ 33,220	$ 19,604	$ 14,380
Service revenue	2,964	3,297	2,691	2,888	
Total net revenue	36,712	34,243	35,911	22,492	14,380
Cost of products sold	20,095	18,293	20,252	11,517	7,964
Cost of services sold	1,172	2,216	2,047	1,434	
Gross profit	15,445	13,734	13,612	9,541	6,416
Selling, general and administrative expense (3)	16,764	37,538	22,798	10,792	7,513
Research and development expense	4,898	3,034	5,244	2,476	
Asset impairment charge (4)	2,986	63,818	726		
Interest income	(15)	(2)	(17)	(26)	
Interest expense-Applied Digital Solutions, Inc.		1,806	1,591		
Interest expense-others	921	303	528	115	41
Other income	(353)	(599)			
Income (loss) before minority interest and equity in net loss of affiliate	(9,756)	(92,164)	(17,258)	(3,816)	(1,138)
Provision for income taxes			41	58	
Income (loss) before minority interest and equity in net loss of affiliate	(9,756)	(92,164)	(17,299)	(3,874)	(1,138)
Minority interest share of losses	298	96	217	4	170
Equity in net loss (income) of affiliate		(291)	(327)		
Net (loss) income	$ (9,458)	$ (92,359)	$ (17,409)	$ (3,870)	$ (968)
Net (loss) income per common share-basic and diluted	$ (0.35)	$ (3.76)	$ (0.93)	$ (0.21)	$ (0.05)
Weighted average common shares outstanding-basic and diluted (5)	26,959	24,578	18,750	18,750	18,750
Balance Sheet Data:					
Cash and cash equivalents	$ 894	$ 214	$ 596	$ 206	$ 139
Property and equipment, net	7,665	7,769	14,476	5,408	1,115
Goodwill and other intangibles, net	45,608	48,893	72,876	77,645	2,713
Total assets	67,307	67,798	107,379	95,344	9,239
Long-term debt and notes payable	2,818	3,314	2,425	2,463	
Total debt	8,736	4,130	85,227	2,503	
Minority interest		298	394	612	616
Total stockholders equity	48,483	55,012	16,116	87,809	5,574
Other Financial Data:					
Depreciation and amortization	$ 1,725	$ 3,638	$ 12,331	$ 2,962	$ 565
Net cash provided by (used in) operating activities	(4,691)	(2,730)	(3,196)	(1,432)	14

Net cash provided by (used in) investing activities	(1,352)	(567)	(1,307)	1,066	(88)
Net cash provided by financing activities	6,595	2,593	4,893	433	212
Capital expenditures	1,165	1,439	1,310	758	106

(1) Includes the results of operations of Medical Advisory Systems from March 27, 2002.

(2) Includes the results of operations of (i) Timely Technology from April 1, 2000 and (ii) Destron Fearing Corporation from September 8, 2000.

(3) Selling, general and administrative expense includes management fees paid to ADS of $193, $771, $262 and $241for the years ended December 31, 2002, 2001, 2000 and 1999.

(4) Asset impairment expense for 2003 consists of a goodwill impairment charge of $2,375 and an intangible asset impairment charge of $611. Asset impairment expense for 2002 consists of a goodwill impairment charge of $57,406 and an asset impairment charge of $6,412 related to the write off of an exclusive perpetual license to a digital encryption and distribution software system. Asset impairment expense for 2001 relates to a goodwill impairment.

(5) Potentially dilutive securities of 13,603 and 9,105 are excluded from the number of weighted average shares outstanding in 2003 and 2002, respectively. Including the dilutive securities would have had an anti-dilutive effect on our net loss per common share. Weighted average shares outstanding for the years ended December 31, 2001, 2000 and 1999 have been restated to reflect the number of common shares received by the former shareholders of the Advanced Wireless Group in the March 27, 2002 merger.

Effective January 1, 2002, we adopted Statement of Financial Accounting Standard No. 142, Goodwill and Other Intangible Assets (SFAS No. 142). SFAS No. 142 requires that goodwill and certain intangibles no longer be amortized but instead tested for impairment at least annually.

The following table presents the impact of SFAS No. 142 on our summary financial data as indicated:

	For the Years Ended December 31,				
(In thousands, except per share data)	**2003**	**2002**	**2001**	**2000**	**1999**
Net loss					
Net loss as reported	$ (9,458)	$ (92,359)	$ (17,409)	$ (3,870)	$ (968)
Goodwill amortization			8,629	2,529	256
Equity method investment amortization			1,161		
Adjusted net loss	$ (9,458)	$ (92,359)	$ (7,619)	$ (1,341)	$ (712)
Basic and diluted loss per share:					
Net loss per share, basic and diluted, as reported	$ (0.35)	$ (3.76)	$ (0.93)	$ (0.21)	$ (0.05)
Goodwill amortization			0.46	0.13	0.01
Equity method investment amortization			0.06		
Adjusted loss per share, basic and diluted	$ (0.35)	$ (3.76)	$ (0.41)	$ (0.08)	$ (0.04)

Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the accompanying financial statements and related notes thereto.

We consist of Digital Angel Corporation and its three subsidiaries Digital Angel Technology Corporation (DATC), Timely Technology Corp. and Signature Industries, Limited. These three subsidiaries were known as the Advanced Wireless Group (AWG). DATC is engaged in the business of developing and bringing to market proprietary technologies used to identify, locate and monitor people, animals and objects. DATC is the result of the merger in September 2000 of Destron Fearing Corporation and Digital Angel.net Inc., which was then a wholly-owned subsidiary of ADS. Upon the acquisition of Medical Advisory Systems, Inc. in March 2002, the Company re-organized into four segments: Animal Applications, Wireless and Monitoring, GPS and Radio Communications and Medical Systems. Prior period segment information has been restated to reflect our current segment structure.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an on-going basis, we evaluate these estimates, including those related to inventory obsolescence, goodwill, intangibles and other long-lived assets and income taxes. We base these estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of the financial statements.

Goodwill, Intangibles and Other Long-Lived Assets

On January 1, 2002, we adopted SFAS No. 142, Goodwill and Other Intangible Assets. SFAS No. 142 requires that goodwill and certain intangibles no longer be amortized but instead tested for impairment at least annually by applying a fair value based test. There was no impairment of goodwill upon the adoption of SFAS 142 on January 1, 2002. However based upon an annual review for impairment, we recorded impairment charges of $2.4 million and $57.4 million in the fourth quarters of 2003 and 2002, respectively. The impairment charge in 2003 related to the goodwill associated with the Medical Systems reporting unit. The impairment charge in 2002 related to the goodwill at the Wireless and Monitoring and Medical Systems reporting units. Further, the Company recorded an additional impairment charge of $0.6 million to write down certain intangible assets to their estimated fair value.

In accordance with FAS 142, upon adoption, we were required to allocate goodwill to the various reporting units. Upon the acquisition of Medical Advisory Systems, Inc in March 2002, the reporting units consisted of the following (the reporting units listed below are those businesses, which have goodwill and for which discrete financial information is available and upon which segment management makes operating decisions):

Animal Applications

Wireless and Monitoring

GPS and Radio Communications

Medical Systems

Our reporting units at December 31, 2003, were the same as its reporting units at December 31, 2002.

We engaged an independent valuation firm to review and evaluate the goodwill as reflected on our books as of December 31, 2003 and 2002. Independently, the valuation firm reviewed the goodwill of the various reporting units (Animal Applications, Wireless and Monitoring, GPS and Radio Communications and Medical Systems). The Company s management compiled the cash flow forecasts, growth rates, gross margin, fixed and variable cost structure, depreciation and amortization expenses, corporate overhead, tax rates, and capital expenditures, among other data and assumptions related to the financial projections upon which the valuation reports were based. The valuation firm s methodology including residual or terminal enterprise values were based on the following factors: risk free rate of 10 years; current leverage (E/V); leveraged beta Bloomberg; unleveraged beta; risk premium; cost of equity; after-tax cost of debt; and weighted average cost of capital. These variables generated a discount rate calculation.

The assumptions used in the determination of fair value using discounted cash flows were as follows:

Cash flows were generated for 5 years based on the expected recovery period for the goodwill;

Earnings before interest, taxes, depreciation and amortization were used as the measure of cash flow; and

Discount rates ranging from 15% to 20%. The rate was determined based on the risk free rate of the 10-year U.S. Treasury Bond plus a market risk premium of 7.5%. (The discount rate utilized by the Company was the rate of return expected from the market or the rate of return for a similar investment with similar risks).

The independent valuation firm performed a company comparable analysis utilizing financial and market information on publicly traded companies that are considered to be generally comparable to the Animal Applications, Wireless and Monitoring, GPS and Radio Communications and Medical Systems reporting units. Each analysis provided a benchmark for determining the terminal values for each business unit to be utilized in its discounted cash flow analysis. The analysis generated a multiple for each reporting unit, which was incorporated into the appropriate business unit s discounted cash flow model.

The analyses for 2003 indicated that the remaining goodwill associated with the Medical Systems reporting unit of approximately $2.4 million was impaired. The analyses for 2002 indicated that approximately $25.9 million of the goodwill associated with the Medical Systems division and all of the goodwill associated with its Wireless and Monitoring division of approximately $31.5 million was impaired.

Future goodwill impairment reviews may result in additional write-downs. Such determination involves the use of estimates and assumptions, which may be difficult to accurately measure or value.

We will assess the fair value of our goodwill annually or earlier if events occur or circumstances change that would more likely than not reduce the fair value of our goodwill below its carrying value. These events or circumstances would include a significant change in business climate, including a significant, sustained decline in an entity s market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of the business, or other factors. If we determine that significant impairment has occurred, we would be required to write off the impaired portion of goodwill. Impairment charges could have a material adverse effect on our financial condition and results of operations.

Additionally, management estimated that certain intangible assets at our Medical Systems reporting unit were impaired by $0.6 million. The GPS and Radio Communications segment recorded a $0.7 million impairment charge in 2001.

Property, plant and equipment and definite-lived intangible assets are depreciated or amortized over their useful lives. Useful lives are based on management s estimates of the period that the assets will generate revenue. Long-lived assets are evaluated for impairment whenever events and circumstances indicate an asset may be impaired. During the fourth quarter of 2002, we determined that an exclusive perpetual license to a digital encryption and distribution software system that was purchased by ADS in April 2001 and contributed to AWG in 2001 was impaired. Accordingly, we wrote off the net book value of the asset, which resulted in an impairment charge of $6.4 million. There were no write downs of any long-lived assets in 2003 or 2001.

Inventories

Estimates are used in determining the likelihood that inventory on hand can be sold. Historical inventory usage and current revenue trends are considered in estimating both obsolescence and slow-moving inventory. Inventory is stated at lower of cost or market, determined by the first-in, first-out method, net of any reserve for obsolete or slow-moving inventory.

Deferred Taxes

We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. While we have considered future taxable income and tax planning strategies in assessing the need for the valuation allowance, in the event we were to subsequently determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the deferred tax asset would increase income in the period such determination was made. Similarly, should we determine that we would not be able to realize all or part of our deferred tax assets in the future, an adjustment to the deferred tax asset would reduce income in the period such determination was made.

Revenue Recognition

For product sales, the Company recognizes revenue at the time product is shipped and title has transferred, provided that a purchase order has been received or a contract has been executed, there are no uncertainties regarding customer acceptance, the sales price is fixed and determinable and collectibility is deemed probable. If uncertainties regarding customer acceptance exists, revenue is recognized when such uncertainties are resolved. There are no significant post-contract support obligations at the time of revenue recognition. Digital Angel Corporation s accounting policy regarding vendor and post contract support obligations is based on the terms of the customers contracts, billable upon occurrence of the post-sale support. Costs of products sold and services provided are recorded as the related revenue is recognized. Digital Angel Corporation offers a warranty on its products. For non-fixed fee jobs, revenue is recognized based on the actual direct labor hours in the job multiplied by the standard billing rate and adjusted to net realizable value, if necessary. Revenues from contracts that provide services are recognized ratably over the term of the contract. Fixed fee revenues from contracts for services are recorded when earned and exclude reimbursable costs. Reimbursable costs incurred in performing such services are presented on a net basis and include transportation, medical and communication costs. Other revenue is recognized at the time service or goods are provided. It is the Company s policy to record contract losses in their entirety in the period in which such losses are foreseeable.

Results of Operations

The following table summarizes our results of operations as a percentage of net operating revenues and is derived from the accompanying consolidated and combined statements of operations included in this report.

	For the Years Ended December 31,		
	2003	2002	2001
	%	%	%
Product revenue	**91.9**	90.4	92.5
Service revenue	**8.1**	9.6	7.5
Total net revenue	**100.0**	100.0	100.0
Cost of products sold	**54.7**	53.4	56.4
Cost of services sold	**3.2**	6.5	5.7
Gross profit	**42.1**	40.1	37.9
Selling, general and administrative expense	**45.7**	109.0	61.3
Management fees Applied Digital Solutions, Inc.		0.5	2.1
Research and development expense	**13.3**	8.9	14.6
Asset impairment	**8.1**	186.4	2.0
Interest expense Applied Digital Solutions, Inc.		5.3	4.4
Interest expense others	**2.5**	0.9	1.5
Other income	**(0.9)**	(1.8)	
Loss before taxes, minority interest share of losses and equity in net loss of affiliate	**(26.6)**	(269.1)	(48.0)
Provision for income taxes			0.1
Loss before minority interest share of losses and equity in net loss of affiliate	**(26.6)**	(269.1)	(48.1)
Minority interest share of losses	**0.8**	0.3	0.6
Equity in net loss of affiliate		(0.9)	(0.9)
Net loss	**(25.8)**	(269.7)	(48.4)

Year Ended December 31, 2003 Compared to the Year Ended December 31, 2002

Revenue

Revenue from operations for the year ended December 31, 2003 was $36.7 million, an increase of $2.5 million, or 7.2%, from $34.2 million in the year ended December 31, 2002. Revenue for the years ended December 31, 2003 and 2002 for each of the operating segments was as follows (in thousands):

	2003	2002
Animal Applications	$ 23,948	$ 20,991
Wireless and Monitoring	122	1,503
GPS and Radio Communications	10,362	10,022
Medical Systems	2,280	1,727
Total	$ 36,712	$ 34,243

The Animal Applications segment s revenue increased $3.0 million, or 14.1%, in the year ended December 31, 2003 as compared to the year ended December 31, 2002. The increase in revenue results from increased engineering service revenue of approximately $1.0 million in 2003, an increase in microchip sales to companion animal and fish and wildlife customers of approximately $1.7 million and increased sales of visual identification products. The engineering service revenue results from research and development performed for certain of our fish and wildlife customers. Several bills proposing the establishment of a national electronic identification program for livestock have recently been introduced in Congress. We cannot estimate the impact a national identification program would have on the Animal Application segment s revenue. However, if implemented, we would expect the impact to be favorable.

The Wireless and Monitoring segment s revenue decreased $1.4 million, or 91.9%, in the year ended December 31, 2003 as compared to the year ended December 31, 2002 due to the cancellation of a significant software support contract, assumed from Timely Technology, in February 2003. The Digital Angel ™ technology continues to be in the development stage and we are uncertain when this technology will be incorporated into any product. Therefore we do not expect any revenues in 2004.

The GPS and Radio Communications segment s revenue increased $0.3 million, or 3.4%, in the year ended December 31, 2003 as compared to the year ended December 31, 2002. The increase results from increases in the exchange rate. Sales in the local currency for the year ended December 31, 2003 decreased slightly due to decreased locator beacon sales. We expect revenue in 2004 to increase due to the introduction of a new pilot locator beacon in the second quarter of 2004.

The Medical Systems segment s revenue increased $0.6 million, or 32.0%, in the year ended December 31, 2003 as compared to $1.7 million in the year ended December 31, 2002. The increase in revenue results from the inclusion of twelve months of revenue in 2003 compared to nine months in 2002, offset by the cancellation of a significant customer in January 2003. The Medical Systems segment was acquired in the MAS acquisition in March 2002. We do not expect any increase in the Medical System segment s revenue in 2004.

On January 22, 2004 we acquired OuterLink Corporation. We expect increased revenue in 2004 as a result of the inclusion of OuterLink s revenues in our financial results.

Gross Profit and Gross Profit Margin

Gross profit for the year ended December 31, 2003 was $15.4 million, an increase of $1.7 million, or 12.5%, from $13.7 million in the year ended December 31, 2002. As a percentage of revenue, the gross profit margin was 42.1% and 40.1% for the years ended December 31, 2003 and 2002, respectively.

Gross profit for the years ended December 31, 2003 and 2002 for each operating segment was as follows (in thousands):

	2003	2002
Animal Applications	$ 9,740	$ 8,111
Wireless and Monitoring	67	110
GPS and Radio Communications	4,913	4,878
Medical Systems	725	635
Total	$ 15,445	$ 13,734

Gross profit margin for the years ended December 31, 2003 and 2002 for each operating segment was as follows:

	2003 %	2002 %
Animal Applications	40.7	38.6
Wireless and Monitoring	54.9	7.3
GPS and Radio Communications	47.4	48.7
Medical Systems	31.8	36.8
Total	42.1	40.1

The Animal Applications segment s gross profit of $9.7 million in the year ended December 31, 2003 increased $1.6 million compared to $8.1 million in the year ended December 31, 2002. We attribute $0.5 million of the increase to the increase in sales and $1.1 million of the increase to increased gross profit margin resulting from increased engineering service revenue. The gross profit margin increased to 40.7% in the year ended December 31, 2003 as compared to 38.6% in the year ended December 31, 2002 due to decreased material costs and an increase in higher margin service revenue in 2003.

The Wireless and Monitoring segment s gross profit decreased in 2003 when compared to 2002. Gross profit margin however, increased to 54.9% in 2003 from 7.3% in 2002 due to the completion of the Alpha phase of a project for which all costs are included in research and development expense.

The GPS and Radio Communication segment s gross profit remains unchanged in 2003 when compared to 2002. Gross profit margin decreased to 47.4% in 2003 from 48.7% in 2002 due to a slight shift in product mix to lower margin products in 2003 compared to 2002.

The Medical Systems segment s gross profit increased $0.9 million, or 14.2%, in the year ended December 31, 2003 as compared to the year ended December 31, 2002. The increase relates to the inclusion of twelve months of gross profit in 2003 compared to nine months in 2002, offset by lower margins in 2003. Gross margin percentage decreased from 36.8% in the year ended December 31, 2002 to 31.8% in the year ended December 31, 2003. Margins decreased in 2003 due to a higher percentage of product revenue, which have lower margins than service revenue.

Selling, General and Administrative Expense

Selling, general and administrative expense decreased $20.6 million, or 55.1%, in the year ended December 31, 2003 as compared to the year ended December 31, 2002. This decrease in expense was the result of an $18.7 million charge in 2002 arising from the remeasurement of options in connection with the merger in 2002 which did not recur in 2003. Pursuant to the terms of the merger agreement, options to acquire shares of DATC common stock were converted into options to acquire shares of Medical Advisory Systems common stock effective March 27, 2002. The conversion resulted in a new measurement date for the options and, as a result, the Company recorded a charge of approximately $18.7 million in non-cash compensation expense during the three months ended March 31, 2002.

As a percentage of revenue, selling, general and administrative expenses, excluding the $18.7 million charge in 2002, was 45.7% and 54.5% for the years ended December 31, 2003 and 2002, respectively.

Selling, general and administrative expenses for the years ended December 31, 2003 and 2002 for each of the operating segments, excluding the $18.7 million charge in 2002, was as follows (in thousands):

		2003		2002
Animal Applications	$	7,098	$	6,403
Wireless and Monitoring		2,235		5,079
GPS and Radio Communications		6,163		6,004
Medical Systems		1,268		1,178
Total	$	16,764	$	18,664

Selling, general and administrative expense as a percentage of revenue for each of the operating segments for the years ended December 31, 2003 and 2002 for each of the operating segments excluding the $18.7 million charge in 2002 was as follows:

	2003 %	2002 %
Animal Applications	29.6	30.5
Wireless and Monitoring	1832.0	337.9
GPS and Radio Communications	59.5	59.9
Medical Systems	55.6	68.2
Total	45.7	54.5

The Animal Applications segment s selling, general and administrative expenses increased $0.7 million in the year ended December 31, 2003 compared to the year ended December 31, 2002 and as a percentage of revenue decreased to 29.6% from 30.5% in the same respective period. We attribute the increase in expense to additional consulting expenses of $0.7 million associated with the Verichip Distribution and Licensing Agreement.

The Wireless and Monitoring segment s selling, general and administrative expenses decreased $2.8 million in the year ended December 31, 2003 as compared to the year ended December 31, 2002. The decrease is primarily due to the exclusion of amortization expense for a license to a digital encryption and distribution software system that the Company wrote off in the fourth quarter of 2002. Included in the Wireless and Monitoring segment s selling, general and administrative expenses for the year ended December 31, 2002 is $2.0 million of amortization expense for this asset. In addition, the decrease results from the significant scale back in development of the Digital Angel ™ technology, including a reduction in personnel, resulting in a decrease in selling, general and administrative expense. We expect that selling, general and administrative expense will continue to decrease in 2004. Selling, general and administrative expenses increased as a percentage of revenue to 1832.0% in the year ended December 31, 2003 compared to 337.9% in the year ended December 31, 2002 as a result of the significant decline in revenue in 2003.

The GPS and Radio Communications segment s selling, general and administrative expense increased $0.2 million in the year ended December 31, 2003 to $6.2 million as compared to $6.0 million in the year ended December 31, 2002 due primarily to increased marketing costs. As a percentage of revenue, selling, general and administrative expenses decreased to 59.5% in 2003 from 59.9% in 2002.

The Medical Systems segment s selling, general and administrative expense increased $0.1 million in the year ended December 31, 2003 to $1.3 million from $1.2 million in the year ended December 31, 2002. We attribute $0.3 million of the increase to the inclusion of twelve months of operations in 2003 compared to nine months in 2002, offset by decreased administrative expenses in 2003. This segment became part of the Company on March 27, 2002.

Management Fees **Applied Digital Solutions, Inc.**

Management fees charged by ADS amounted to $0.2 million for the year ended December 31, 2002. These fees were for general and administrative services performed for us by ADS. The management fee arrangement with ADS terminated on March 27, 2002.

Research and Development Expense

Research and development expense was $4.9 million in the year ended December 31, 2003, an increase of $1.9 million, or 61.4%, from $3.0 million for the year ended December 31, 2002. As a percentage of revenue, research and development expense was 13.3% and 8.9% for the years ended December 31, 2003 and 2002, respectively.

Research and development expense for the years ended December 31, 2003 and 2002 for each of the operating segments was as follows (in thousands):

	2003		2002	
Animal Applications	$	2,984	$	1,725
Wireless and Monitoring		966		1,227
GPS and Radio Communications		948		82
Medical Systems				
Total	$	4,898	$	3,034

The increase in expense is due to research and development expenses at our GPS and Radio Communications segment for its recent search and rescue beacon project and research and development expenses incurred for the Animal Application segment s temperature sensing implantable microchip and engineering expenses to support improved transponder performance. The increase is offset by a decrease in research and development expense at our Wireless and Monitoring due to a scale back in the development of the Digital Angel ™ technology.

Asset Impairment

Asset impairment expense was $3.0 million and $63.8 million in the years ended December 31, 2003 and 2002, respectively. Asset impairment expense for 2003 consists of a goodwill impairment charge of $2.4 million and an intangible asset impairment charge of $0.6 million related to intangible assets both at our Medical Systems segment. Asset impairment expense for 2002 consists of a goodwill impairment charge of $57.4 million and an asset impairment charge of $6.4 million related to the write off of an exclusive perpetual license to a digital encryption and distribution software system in our Wireless and Monitoring segment.

Interest Expense

Interest expense was $0.9 million and $2.1 million for each of the years ended December 31, 2003 and 2002, respectively. Interest expense in 2002 includes interest expense of $1.8 million on the debt owed to IBM Credit by ADS. As discussed in Note 1 to the financial statements, this debt was recognized by AWG due to ADS s default on the loan agreement. On March 27, 2002, ADS restructured its loan agreement with IBM Credit. The provisions of this restructuring included AWG being released from responsibility to repay this debt. Accordingly, ADS assumed this liability on March 27, 2002.

Income Taxes

The Company and AWG had effective income tax rates of 0.0% in 2003 and 2002, respectively. Differences in the effective income tax rates from the statutory federal income tax rate in 2003 and 2002 arise primarily from non-deductibility of certain expenses and valuation allowances recorded on deferred tax assets resulting from net operating losses. The U.S. companies in AWG were included in ADS s consolidated federal income tax return through March 27, 2002. MAS and its subsidiaries filed a separate consolidated federal income tax return through March 27, 2002. After March 27, 2002, Digital Angel Corporation s U.S. subsidiaries file a consolidated federal tax return.

Year Ended December 31, 2002 Compared to the Year Ended December 31, 2001

Revenue

Revenue from operations for the year ended December 31, 2002 was $34.2 million, a decrease of $1.7 million, or 4.6%, from $35.9 million in the year ended December 31, 2001.

Revenue for the years ended December 31, 2002 and 2001 for each of the operating segments was as follows (in thousands):

	2002		2001	
Animal Applications	$	20,991	$	22,247
Wireless and Monitoring		1,503		2,520
GPS and Radio Communications		10,022		11,144
Medical Systems		1,727		
Total	$	34,243	$	35,911

The Animal Applications segment s revenue decreased $1.3 million, or 5.6%, in the year ended December 31, 2002 as compared to the year ended December 31, 2001. The decline was due to a decrease in shipments of visual identification tags for Canadian customers, customer inventory adjustments and continued softness in the livestock market during 2002, offset by an increase in engineering service revenue of $0.4 million.

The Wireless and Monitoring segment s revenue decreased $1.0 million, or 40.4%, in the year ended December 31, 2002 as compared to the year ended December 31, 2001 due to completed client assignments that were not replaced and a delay in the shipment of newly introduced Digital Angel products.

The GPS and Radio Communications segment s revenue decreased $1.1 million, or 10.1%, in the year ended December 31, 2002 as compared to the year ended December 31, 2001 as a result of a reduction in Control Products sales.

The Medical Systems revenue was $1.7 million for the year ended December 31, 2002. This segment became part of the Company on March 27, 2002.

Gross Profit and Gross Profit Margin

Gross profit for the year ended December 31, 2002 was $13.7 million, an increase of $0.1 million, or 0.9%, from $13.6 million in the year ended December 31, 2001. As a percentage of revenue, the gross profit margin was 40.1% and 37.9% for the years ended December 31, 2002 and 2001, respectively.

Gross profit for the years ended December 31, 2002 and 2001 for each operating segment was as follows (in thousands):

	2002		2001	
Animal Applications	$	8,111	$	7,995
Wireless and Monitoring		110		473
GPS and Radio Communications		4,878		5,144

Medical systems		635		
Total	$	13,734	$	13,612

Gross profit margin for the years ended December 31, 2002 and 2001 for each operating segment was as follows:

	2002 %	2001 %
Animal Applications	38.6	35.9
Wireless and Monitoring	7.3	18.8
GPS and Radio Communications	48.7	46.2
Medical Systems	36.8	
Total	40.1	37.9

The Animal Applications segment s gross profit of $8.1 million in the year ended December 31, 2002 increased $0.1 million compared to $8.0 million in the year ended December 31, 2001. The increase was due to improved margins. The gross profit margin increased to 38.6% in the year ended December 31, 2002 as compared to 35.9% in the year ended December 31, 2001 due to a more favorable product mix.

The Wireless and Monitoring segment s gross profit decreased $0.4 million, or 76.7%, in the year ended December 31, 2002 as compared to the year ended December 31, 2001. Margins decreased to 7.3% in the year ended December 31, 2002 from 18.8% in the year ended December 31, 2001. The gross profit decrease was primarily due to the sales decline. The margin percentage declined primarily due to the completion of higher margin contracts in 2001 that were not replaced in 2002.

The GPS and Radio Communications segment s gross profit decreased $0.3 million or 5.2% in the year ended December 31, 2002 as compared to the year ended December 31, 2001. The gross margin percentage increased to 48.7% in the year ended December 31, 2002 compared to 46.2% in the year ended December 31, 2001 due to a favorable shift in the product mix.

The Medical Systems segment s gross profit was $ 0.6 million for the year ended December 31, 2002. The gross margin was 36.8% in the year ended December 31, 2002. This segment became part of the Company on March 27, 2002.

Selling, General and Administrative Expense

Selling, general and administrative expense increased $15.3 million, or 69.5%, in the year ended December 31, 2002 as compared to the year ended December 31, 2001. This increase was caused primarily by an $18.7 million charge arising from the remeasurement of options in connection with the merger. Pursuant to the terms of the merger agreement, options to acquire shares of DATC common stock were converted into options to acquire shares of Medical Advisory Systems common stock effective March 27, 2002. The conversion resulted in a new measurement date for the options and, as a result, the Company recorded a charge of approximately $18.7 million in non-cash compensation expense during the three months ended March 31, 2002. For current employees of the Company, these options were considered fixed awards under APB Opinion No. 25, and expense was recorded for the intrinsic value of the options converted. For all other options, expense was recorded for the fair value of the options converted using the Black-Scholes option pricing model.

Partially offsetting the non-cash compensation expense is the decrease in amortization expense due to the adoption of SFAS No. 142, which took effect January 1, 2002. Accordingly, goodwill amortization was not recorded during 2002.

As a percentage of revenue, selling, general and administrative expense was 109.0% and 61.3% for the years ended December 31, 2002 and 2001, respectively.

Selling, general and administrative expense for the years ended December 31, 2002 and 2001 for each of the operating segments excluding the $18.7 million charge in 2002 was as follows (in thousands):

	2002	2001
Animal Applications	$ 6,403	$ 13,502
Wireless and Monitoring	5,079	2,786
GPS and Radio Communications	6,004	5,739
Medical Systems	1,178	
Total	$ 18,664	$ 22,027

Selling, general and administrative expense as a percentage of revenue for each of the operating segments for the years ended December 31, 2002 and 2001 for each of the operating segments excluding the $18.7 million charge in 2002 was as follows:

	2002 %	2001 %
Animal Applications	30.5	60.7
Wireless and Monitoring	337.9	110.6
GPS and Radio Communications	59.9	51.5
Medical Systems	68.2	
Total	54.5	61.3

The Animal Applications segment s selling, general and administrative expense decreased $7.1 million in the year ended December 31, 2002 compared to the year ended December 31, 2001 and as a percentage of revenue decreased to 30.5% from 60.7% in the same respective period. The decrease is due primarily to the adoption of SFAS No. 142, which took effect on January 1, 2002. Accordingly, goodwill amortization was not recorded during 2002. The decrease was partially offset by increased legal, accounting, and investor relations expenses.

The Wireless and Monitoring segment s selling, general and administrative expense increased $2.3 million in the year ended December 31, 2002 as compared to the year ended December 31, 2001. Selling, general and administrative expenses increased as a percentage of revenue to 337.9% in the year ended December 31, 2002 compared to 110.6% in the year ended December 31, 2001 as a result of the scale up of marketing personnel, advertising and media programs, legal expenses and infrastructure to support the introduction of Digital Angel™ products and the previously mentioned decrease in sales.

The GPS and Radio Communications segment s selling, general and administrative expense increased $0.3 million in the year ended December 31, 2002 to $6.0 million as compared to $5.7 million in the year ended December 31, 2001 due primarily to additional commissions and marketing costs. As a percentage of revenue, selling, general and administrative expenses increased to 59.9% in 2002 from 51.5% in 2001.

The Medical Systems segment s selling, general and administrative expense was $1.2 million in the year ended December 31, 2002. This segment became part of the Company on March 27, 2002.

Management Fees **Applied Digital Solutions, Inc.**

Management fees charged by ADS amounted to $0.2 million and $0.8 million for the years ended December 31, 2002 and 2001, respectively. These fees were for general and administrative services performed for us by ADS. After March 27, 2002, we are no longer obligated to pay a management fee to ADS.

Research and Development Expense

Research and development expense was $3.0 million in the year ended December 31, 2002, a decrease of $2.2 million, or 42.1%, from $5.2 million for the year ended December 31, 2001. As a percentage of revenue, research and development expense was 8.9% and 14.6% for the years ended December 31, 2002 and 2001, respectively. Included in research and development expense for 2002 are charges by ADS of approximately $0.3 million for work done by ADS s research group to support our technology development.

Research and development expense for the years ended December 31, 2002 and 2001 for each of the operating segments was as follows (in thousands):

	2002	2001
Animal Applications	$ 1,725	$ 1,230
Wireless and Monitoring	1,227	4,014
GPS and Radio Communications	82	
Medical Systems		
Total	$ 3,034	$ 5,244

The decrease in expense is primarily due to the completion of some Digital Angel™ technology development.

Asset Impairment

Asset impairment expense was $63.8 million and $0.7 million in the years ended December 31, 2002 and 2001, respectively. Asset impairment expense for 2002 consists of a goodwill impairment charge of $57.4 million and an asset impairment charge of $6.4 million related to the write off of an exclusive perpetual license to a digital encryption and distribution software system. Asset impairment expense for 2001 consists of a goodwill impairment.

Interest Expense

Interest expense was $2.1 million for each of the years ended December 31, 2002 and 2001. Interest expense in 2002 and 2001 includes interest expense of $1.8 million and $1.6 million, respectively, on the debt owed to IBM Credit by ADS. As discussed in Note 1 to the financial statements, this debt was recognized by AWG due to ADS s default on the loan agreement. On March 27, 2002, ADS restructured its loan agreement with IBM Credit. The provisions of this restructuring included AWG being released from responsibility to repay this debt. Accordingly, ADS assumed this liability on March 27, 2002.

Income Taxes

The Company and AWG had effective income tax rates of 0.0% in 2002 and 2001, respectively. Differences in the effective income tax rates from the statutory federal income tax rate in 2002 arise primarily from the non-deductibility of certain expenses and valuation allowances recorded on deferred tax assets resulting from net operating losses. Differences in 2001 arise primarily from valuation allowances recorded on deferred tax assets resulting from net operating losses, non-deductible goodwill amortization associated with acquisitions and state taxes net of federal benefits. The U.S. companies in AWG were included in ADS s consolidated federal income tax return through March 27, 2002. MAS and its subsidiaries filed a separate consolidated federal income tax return through March 27, 2002. After March 27, 2002, Digital Angel Corporation s U.S. subsidiaries will file a consolidated federal tax return.

Liquidity and Capital Resources

Cash Flows

As of December 31, 2003, cash and cash equivalents totaled $0.9 million as compared to $0.2 million at December 31, 2002. During 2003, $4.7 million of cash was used in operating activities, compared to $2.7 million in 2002 and $3.2 million in 2001. In 2003, the use of cash was due primarily to the net loss. Non cash charges included in net loss were a $3.0 million asset impairment charge and $1.7 million of depreciation and amortization. Partially offsetting the use of cash in 2003 was an increase in payables and accrued liabilities of $1.9 million.

Net cash used in investing activities totaled $1.4 million in 2003 compared to $0.6 million in 2002 and $1.3 million in 2001. The principal use of cash in 2003 was $1.2 million for the purchase of property, plant and equipment. Expenditures for property, plant and equipment were $1.4 million in 2002 and $1.3 million in 2001. Partially offsetting the use of cash in 2003 for the purchase of property, plant and equipment were proceeds from the sale of an investment of $0.2 million.

Net cash provided by financing activities totaled $6.6 million in 2003 compared to $2.6 million in 2002 and $4.9 million in 2001. Cash provided by financing activities during 2003 consisted primarily of net borrowings of $2.3 million on our revolving credit facility, $2.4 million from the exercise of stock options and net borrowings of $2.4 million of debt, offset by $0.5 million paid financing costs.

Financing and Liquidity

The following table summarizes our fixed cash obligations as of December 31, 2003 over various future years (in thousands):

		Payments Due by Period			
Contractual cash obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**4-5 Years**	**After 5 Years**
Notes Payable and Long-Term Debt	$ 8,969	6,037	704	122	2,106
Operating Leases	11,214	530	846	894	8,944
Employment Contracts	1,716	865	851		
	$ 21,899	$ 7,432	$ 2,401	$ 1,016	$ 11,050

Convertible Note-On July 31, 2003, we entered into a Securities Purchase Agreement (Purchase Agreement) to sell to Laurus Master Fund, Ltd. (Laurus) a two-year Secured Convertible Note (the Convertible Note) in the original principal amount of $2,000,000 and a five-year warrant to purchase up to 125,000 shares of our common stock. The per share exercise price of the warrant is $2.68 for 75,000 shares, $2.91 for 35,000 shares and $3.38 for 15, 000 shares. The Convertible Note is convertible, at Laurus s option, into shares of our common stock at a per share price of $2.33. Laurus is not entitled to convert the amount evidenced by the Convertible Note into a number of shares of common stock which would exceed the difference between the number of shares of common stock beneficially owned by Laurus and 4.99% of the outstanding shares of common stock of us. However, Laurus may acquire more than 4.99% of our outstanding common stock upon 75 days notice to the Company. The Convertible Note accrues interest at an annual rate equal to the higher of the prime rate plus 1.75% or 6% per annum. We allocated $143,000 of the proceeds to the warrant issued. The amount allocated represents the fair value of the warrant calculated under the Black-Scholes method. The value of the warrant is included in additional paid in capital and is being amortized to interest expense over the life of the Convertible Note.

In connection with the Convertible Note, we and Laurus entered into a Security Agreement granting to Laurus a lien and security interest in our assets. Additionally, the Securities Purchase Agreement includes default provisions should an Event of Default (as defined in the agreement) occur; furthermore, under a related registration rights agreement, the Company has agreed to register the common stock underlying the Convertible Note.

Credit Facility- Effective August 28, 2003, we terminated our Credit and Security Agreement with Wells Fargo Business Credit. Under the terms of the Credit and Security Agreement, we paid a termination fee of $150,000 to Wells Fargo. The termination fee is included in selling, general and administrative expense in the 2003 statement of operations.

Revolving Note and Minimum Borrowing Note- On August 28, 2003, we entered into a Security Agreement with Laurus under which the Company may borrow from Laurus the lesser of $5,000,000 or an amount that is determined based on percentages of the Company s eligible accounts receivable and inventory as prescribed by the terms of the Security Agreement. Under the Security Agreement, the Company issued to Laurus a three-year Secured Revolving Convertible Note (Revolving Note) in the original principal amount of $3,500,000 and a three-year Secured Minimum Borrowing Convertible Note (Minimum Borrowing Note) in the original principal amount of $1,500,000. We used proceeds from the Revolving Note and Minimum Borrowing Note to satisfy in full our credit facility from Wells Fargo Business Credit. The Revolving Note and Minimum Borrowing Note accrue interest at an annual rate equal to the prime rate plus 2.5%.The availability under the Revolving Note was $219,000 at December 31, 2003.

Beginning May 28, 2004, the Minimum Borrowing Note and the Revolving Note are convertible, at Laurus s option, into shares of the Company s common stock at a per price share of $2.64 (the Fixed Conversion Price). The Fixed Conversion Price is adjusted upward following each conversion of $2,000,000, as defined. Laurus is not entitled to convert the amount evidenced by the Minimum Borrowing Note and the Revolving Note into a number of shares of common stock which would exceed the difference between the number of shares of the Company s common stock beneficially owned by Laurus or issuable upon the exercise of warrants held by Laurus and 4.99% of the outstanding shares of the Company s common stock. However, Laurus may acquire more than 4.99% of the Company s outstanding common stock upon 75 days notice to the Company. Additionally, the Securities Purchase Agreement includes default provisions should an Event of Default (as defined in the agreement) occur; furthermore, under a related registration rights agreement, the Company has agreed to register the common stock underlying the Revolving Note and Minimum Borrowing Note.

The Company also issued to Laurus a five-year warrant to purchase up to 115,000 shares of the Company s stock. The per share exercise price of the warrant is $2.55 for 70,000 shares, $2.75 for 35,000 shares, and $2.95 for 10,000 shares. The Company allocated $133,000 of the proceeds to the warrant issued. The amount allocated represents the fair value of the warrant calculated under the Black-Scholes method. The value of the warrant is included in additional paid in capital and is being amortized to interest expense over the life of the Revolving Note and Minimum Borrowing Note.

*Working Capital Loan-*On March 7, 2003, Signature Industries Ltd., our subsidiary in the United Kingdom, entered into a Loan Agreement with The Royal Bank of Scotland for £500,000 to finance the working capital requirements of their Indian Air Force contract. The Loan bears interest at 2.25% above the base rate, as defined in the agreement (6.25% at March 10, 2004). The base rate may vary from time to time. On January 22, 2004 the agreement was amended to increase the loan amount to £1,000,000 ($1,830,000). Repayment of £200,000 is required by May 30, 2004 and each month thereafter until the loan is repaid in full.

*Invoice Discounting Agreement-*On April 9, 2003, Signature Industries Ltd. entered into a two-year Invoice Discounting Agreement with The Royal Bank of Scotland Commercial Services Limited (RBS). The Invoice Discounting Agreement, as amended October 28, 2003, provides for Signature to sell with full title guarantee most of its receivables, as defined in the Invoice Discounting Agreement, as amended. RBS prepays 80% of the receivables sold, not to exceed an outstanding balance of £750,000 ($1,333,500) at any given time. RBS pays Signature the remainder of the receivable upon collection of the receivable. Receivables which remain outstanding 90 days from the end of the invoice month become ineligible and RBS may require Signature to repurchase the receivable back. The discounting charge accrues daily at an annual rate 2.25% above the base rate, as defined in the amended Invoice Discounting Agreement (6.25% at March 10, 2004). Signature pays a commission charge to RBS of 0.2% of each receivable balance sold. The Invoice Discounting Agreement, as amended, requires a minimum commission charge of £833 per month. Discounting charges of $32,000 are included in interest expense in the 2003 statement of operations. Amount of receivables financed at December 31, 2003 was $872,000.

*Stock Issuance to ADS-*On March 1, 2004, the Company issued 3,000,000 shares of its common stock to ADS pursuant to the Stock Purchase Agreement (Stock Purchase Agreement) with ADS dated August 14, 2003. The Stock Purchase Agreement provided for ADS to purchase 3,000,000 shares of our common stock at a price of $2.64 per share and a warrant (the ADS Warrant) to purchase up to 1,000,000 shares of our common stock, which is exercisable for five years beginning February 1, 2004, at a price per share of $3.74 payable in cash or shares of common stock of ADS. The purchase price for the sale of the Company s 3,000,000 shares and the warrant was payable in ADS common stock having an aggregate value of $7.92 million. The number of shares of ADS common stock received by Digital Angel Corporation as payment of the purchase price was 19,800,000 shares of ADS s common stock, exclusive of the proceeds on exercise of the warrant. The Company expects to generate approximately $6 to $7 million of cash by selling the 19,800,000 shares of stock received by ADS. The Company expects that the cash generated will be sufficient to meet its projected working capital requirements for the next 12 months.

As part of this transaction , the Company issued five-year warrants to purchase up to 500,001 shares of the Company s stock at an exercise price of $2.64 per share anytime on or after February 1, 2004 to the holders of the ADS 8.5% Convertible Exchangeable Debentures.

In 2004, the Company received aggregate proceeds of $942,000 on the exercise of stock options.

The Company has incurred losses for the past several years and has experienced net cash outflows from operations. Further, at December 31, 2003. the Company had a working capital deficit of $3.1 million. Management plans to reduce its operating expenses and introduce new products in the Animal Applications business. There can be no assurance that the Company will attain profitability, or if profitability is achieved, that it will be sustained. Pursuant to a Stock Purchase Agreement with ADS, in March 2004, the Company received 19,800,000 shares of ADS common stock. The Company expects to generate sufficient additional funds from the sale of these shares and take any other actions which the Company believes will be necessary to sustain its operations for the next twelve months.

Recently Issued Accounting Standards

In June 2002, the FASB issued SFAS No. 146, Accounting for Costs Associated with Exit or Disposal Activities. SFAS No. 146 requires recording costs associated with exit or disposal activities at their fair values when a liability has been incurred. Under previous guidance, certain exit costs were accrued upon management s commitment to an exit plan. The Company adopted SFAS No. 146 on January 1, 2003. The adoption of SFAS No. 146 did not have a material impact on theresults of operations or financial position.

Effective January 1, 2003, the Company adopted the recognition and measurement provisions of FASB Interpretation No. 45 (Interpretation 45), Guarantor s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others. This interpretation elaborates on the disclosures to be made by a guarantor in interim and annual financial statements about the obligations under certain guarantees. Interpretation 45 also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The initial recognition and initial measurement provisions of this interpretation are applicable on a prospective basis to guarantees issued or modified after December 31, 2002. The Company does not currently provide significant guarantees on a routine basis. As a result, this interpretation has not had a material impact on the Company s financial statements.

In December 2003, the FASB issued FASB Interpretation No. 46 (revised December 2003) (Interpretation 46), Consolidation of Variable Interest Entities. Application of this interpretation is required in the Company s financial statements for interests in variable interest entities that are considered to be special-purpose entities for the year ended December 31, 2003. The Company determined that it does not have any arrangements or relationships with special-purpose entities.

Interpretation 46 addresses the consolidation of business enterprises to which the usual condition (ownership of a majority voting interest) of consolidation does not apply. This interpretation focuses on controlling financial interests that may be achieved through arrangements that do not involve voting interests. It concludes that in the absence of clear control through voting interests, a company s exposure (variable interest) to the economic risks and potential rewards from the variable interest entity s assets and activities are the best evidence of control. If an enterprise holds a majority of the variable interests of an entity, it would be considered the primary beneficiary. The primary beneficiary is required to include assets, liabilities and the results of operations of the variable interest entity in its financial statements. The adoption of FIN 46 did not have an impact on the financial position or operations of the Company.

In May 2003, the FASB issued SFAS 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity (SFAS No. 150). SFAS No. 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). Many of those instruments were previously classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise is effective at the beginning of the first interim period beginning after June 15, 2003. It is to be implemented by reporting the cumulative effect of a change in accounting principle for financial instruments created before the issuance date of the statement and still existing at the beginning of the interim period of adoption. Restatement is not permitted. The Company adopted the provisions of SFAS No.150 effective July 1, 2003. The adoption of SFAS No. 150 did not have an impact on the Company s financial position or results of operations.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We have operations and sales in various regions of the world. Additionally, we export to and import from other countries. Our operations may, therefore, be subject to volatility because of currency fluctuations, inflation and changes in political and economic conditions in these countries. Sales and expenses may be denominated in local currencies and may be affected as currency fluctuations affect our product prices and operating costs or those of our competitors.

We presently do not use any derivative financial instruments to hedge our exposure to adverse fluctuations in interest rates, foreign exchange rates, fluctuations in commodity prices or other market risks, nor do we invest in speculative financial instruments.

Due to the nature of our borrowings and our short-term investments, we have concluded that there is no material market risk exposure and, therefore, no quantitative tabular disclosures are required.

Item 8. Financial Statements and Supplementary Data

See Financial Statements and Notes thereto commencing on Page F-1.

Item 9. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure

PricewaterhouseCoopers LLP was the independent accountant for the Advanced Wireless Group prior to the merger between Digital Angel Corporation and Medical Advisory Systems. The financial statements of the Advanced Wireless Group became the historical financial statements of Digital Angel Corporation following the merger.

The report of PricewaterhouseCoopers on the Advanced Wireless Group financial statements for the year ended December 31, 2001 contained no adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles, except that the report contained an explanatory paragraph expressing doubt about the Advanced Wireless Group s ability to continue as a going concern. On April 11, 2002, Applied Digital Solutions dismissed PricewaterhouseCoopers, LLP as its auditors.

On April 18, 2002, we dismissed BDO Seidman LLP as our certifying accountant. BDO Seidman s report on Medical Advisory Systems financial statements for the last fiscal year contained no adverse opinion or disclaimer of opinion, nor was the report qualified or modified as to uncertainty, audit scope, or accounting principles. The decision to change accountants was unanimously approved by our Board of Directors, including all members of our Audit Committee. During the last fiscal year and through the subsequent interim period beginning November 1, 2001 and ending April 18, 2002, there were no disagreements with BDO Seidman on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures. We engaged Grant Thornton LLP as our certifying accountant on April 18, 2002.

On May 14, 2002, Grant Thornton notified us that it had resigned as our certifying accountant. Since Grant Thornton was engaged on April 18, 2002, it did not prepare a report on our financial statements for either of the last two years. Therefore, no report was issued by Grant Thornton that could contain an adverse opinion or disclaimer of opinion, or a qualification or modification as to uncertainty, audit scope, or accounting principles. Between April 18, 2002 and May 14, 2002, there were no disagreements with Grant Thornton on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure. Grant Thornton advised us that its decision to resign was caused by its resignation as auditor for our majority shareholder, Applied Digital Solutions.

On May 23, 2002, we engaged Eisner LLP as our certifying accountant to audit our financial statements for the fiscal year ending December 31, 2002. During 2002 and 2003 and in the subsequent interim period, we have not consulted with Eisner LLP on items which concerned the application of accounting principles, or to a specific transaction or group of either completed or proposed transactions, or the type of audit opinion that might be rendered on our financial statements, or any other matters or reportable events.

Item 9A. Controls and Procedures

The Company s management, including the Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the Company s disclosure controls and procedures as of the end of the period covered by this annual report and have concluded that these controls and procedures were effective to provide reasonable assurance that the information required to be disclosed by the registrant in the reports the registrant files or submits under the 1934 Act is recorded, processed, summarized, and reported within the time periods specified in the SEC s rules and forms, and to provide reasonable assurance that information required to be disclosed by the Company in such reports is accumulated and communicated to the Company s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

There have been no significant changes in internal control over financial reporting, for the period covered by this report, that have materially affected or are reasonably likely to materially affect, the Company s internal control over financial reporting.

PART III

Item 10. Directors and Executive Officers of the Registrant

The information required by Item 10 will be included in the Company s definitive Proxy Statement under the captions Information Concerning Directors and Executive Officers Directors, Board Actions and Committees and Executive Officers, which information is hereby incorporated herein by reference.

Item 11. Executive Compensation

The information required by Item 11 will be included in the Company s definitive Proxy Statement under the captions Information Concerning Directors and Executive Officers Directors Compensation, Executive Compensation, 401(k) Profit Sharing Plan and Trust, Stock Plans, Employment Agreements, and Compensation Committee Interlocks and Insider Participation in Compensation Decisions, which information is hereby incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 12 will be included in the Company s definitive Proxy Statement under the caption Beneficial Ownership of Common Stock, which information is hereby incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions

The information required by Item 13 will be included in the Company s definitive Proxy Statement under the caption Information Concerning Directors and Executive Officers Certain Transactions, which information is hereby incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by this Item is included under the caption Ratification of the Appointment of Independent Auditor which information is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K.

a) The financial statements filed as part of this report are described on page F-1, entitled Index to Financial Statements.

b) During the quarter ended December 31, 2003, the Company filed the following Current Reports on Form 8-K:

(i) On November 17, 2003, the Company filed a Current Report on Form 8-K dated November 14, 2003 to report its financial results for the quarter and nine months ended September 30, 2003.

(ii) On November 7, 2003, the Company filed a Current Report on Form 8-K dated November 7, 2003 to report the announcement that Mr. Van Chu has assumed responsibilities of Chief Executive Officer of Digital Angel Corporation.

(iii) On November 5, 2003, the Company filed a Current Report on Form 8-K dated November 3, 2003 to report that Digital Angel Corporation had signed an agreement and plan of merger pursuant to which Digital Angel Corporation will acquire OuterLink Corporation of Concord, Massachusetts, subject to certain conditions.

c) The exhibits to this Annual Report on Form 10-K are described in the Index to Exhibits beginning on page 34.

d) Financial statement schedules:

Schedule II Valuation and Qualifying Accounts for the Three Years Ended December 31, 2003

All other schedules (Schedules I, III, IV and V) for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instruction or are inapplicable and therefore have been omitted.

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 behalf by the undersigned, thereunto duly authorized.

DIGITAL ANGEL CORPORATION

Date: March 12, 2004

/s/ Kevin N. McGrath
Kevin N. McGrath
Chief Executive Officer

Pursuant to requirements of the Securities and 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.

Name	Title	Date
/s/ Kevin N. McGrath Kevin N. McGrath	President, Chief Executive Officer and Director (Principal Executive Officer)	March 12, 2004
/s/ Scott R. Silverman Scott R. Silverman	Chairman and Director	March 12, 2004
/s/ Kevin H. McLaughlin Kevin H. McLaughlin	Director	March 12, 2004
/s/ Howard S. Weintraub Howard S. Weintraub	Director	March 12, 2004
/s/ John R. Block John R. Block	Director	March 12, 2004
/s/ Michael S. Zarriello Michael S. Zarriello	Director	March 12, 2004
/s/ James P. Santelli James P. Santelli	Vice President-Finance and Chief Financial Officer (Principal Financial Officer)	March 12, 2004

INDEX TO EXHIBITS

The following exhibits are filed with this Annual Report on Form 10-K:

10.1 Stock Purchase Agreement between Applied Digital Solutions and Digital Angel Corporation dated August 14, 2003

23.1 Consent of Independent Auditors Eisner LLP

23.2 Consent of Independent Accountants PricewaterhouseCoopers LLP

31.1 Certification of Chief Executive Officer under Rules 13a-14(a)/15d-14(a) under the Securities and Exchange Act and Section 302 of Sarbanes-Oxley Act of 2002

31.2 Certification of Chief Financial Officer under Rules 13a-14(a)/15d-14(a) under the Securities and Exchange Act and Section 302 of Sarbanes-Oxley Act of 2002

32.1 Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

32.2 Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

The following exhibits are incorporated by reference as exhibits to this Form 10-K

Exhibit Number	**Description of Exhibits**
2.1	

	Certificates of Merger dated March, 27, 2002 (incorporated by reference to Exhibit 2.1 to our Registration Statement on Form S-1 dated November 1, 2002)
2.2	Agreement and Plan of Merger dated November 2, 2003, by and among Digital Angel Corporation, DA Acquisition and OuterLink Corporation (incorporated by reference to our Registration Statement on Form S-3 (No. 333-110817) filed on November 26, 2003)
3.1	Amended and Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to Amendment No. 1 to our Registration Statement on Form S-3 (No. 333-110817) filed on January 23, 2004)
3.2	Bylaws (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to our Registration Statement on Form S-3 (No. 333-110817) filed on January 23,2004)
10.2	Medical Advisory Systems, Inc. Amended and Restated Employee and Director Stock Option Plan (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-8, filed October 29, 2001 (No. 333-92471))
10.3	Amended and Restated Digital Angel Corporation Transition Stock Option Plan (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-8, filed August 9, 2002 ((No. 333-97867))
10.4	Agreement and Plan of Merger, dated as of November 1, 2001 (incorporated by reference to our definitive Proxy Statement on Schedule 14A, filed February 14, 2002)
10.5	First Amendment to Agreement and Plan of Merger, dated as of March 26, 2002 (incorporated by reference to Exhibit 2.2 to our Form 8-K, filed April 11, 2002)
10.6	Employment Agreement by and between Medical Advisory Systems, Inc. and Ronald W. Pickett, dated as of November 1, 1998 (incorporated by reference to Exhibit 10.8 to Amendment No. 1 to our Annual Report on Form 10-KSB for the fiscal year ended October 31, 1998, filed September 1, 1999)
10.7	Employment Agreement by and between Medical Advisory Systems, Inc. and Thomas M. Hall, dated as of November 1, 1998 (incorporated by reference to Exhibit 10.9 to Amendment No. 1 to our Annual Report on Form 10-KSB for the fiscal year ended October 31, 1998, filed September 1, 1999)
10.8	Employment Agreement by and between Medical Advisory Systems, Inc. and Dale Hutchins, dated as of November 1, 1999 (incorporated by reference to Exhibit 10.7 to our Registration Statement on Form S-1 dated November 1, 2002)
10.9	Amendment to Employment Agreement by and between Medical Advisory Systems, Inc. and Ronald W. Pickett, dated as of October 26, 2001 (incorporated by reference to Exhibit 10.8 to our Registration Statement on Form S-1 dated November 1, 2002)
10.10	Amendment to Employment Agreement by and between Medical Advisory Systems, Inc. and Thomas M. Hall, dated as of October 26, 2001 (incorporated by reference to Exhibit 10.9 to our Registration Statement on Form S-1 dated November 1, 2002)

10.11	Employment Agreement by and between Digital Angel Corporation and James P. Santelli, dated as of April 1, 2002 (incorporated by reference to Exhibit 10.2 to our Form 10-Q for the quarterly period ended March 31, 2002, filed May 20, 2002)
10.12	Form of Secured Convertible Note by Digital Angel Corporation to Laurus Master Fund, Ltd dated July 31, 2003 (incorporated by reference to Exhibit 4.1 to our Form S-3 (No. 333-111671) filed December 31, 2003)
10.13	Securities Purchase Agreement, dated July 31, 2003, by and between Digital Angel Corporation and Laurus Master Fund, Ltd (incorporated by reference to Exhibit 10.1 to our Form S-3 (No. 333-111671) filed December 31, 2003)
10.14	Registration Rights Agreement, dated July 31, 2003, by and between Digital Angel Corporation and Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.2 to our Form S-3 (No. 333-111671) filed December 31, 2003)
10.15	Security Agreement, dated July 31, 2003, by and between Digital Angel Corporation and Laurus Master Fund, Ltd (incorporated by reference to Exhibit 10.3 to our Form S-3 (No. 333-111671) filed December 31, 2003)
10.16	Common Stock Purchase Warrant dated July 31, 2003 to purchase 125,000 shares of common stock of Digital Angel Corporation issued by Digital Angel Corporation to Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 4.3 to our Form S-3 (No. 333-111671) filed December 31, 2003)
10.17	Secured Revolving Convertible Note dated August 28, 2003 issued by Digital Angel Corporation to Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.1 to our Form 8-K, filed September 3, 2003)
10.18	Secured Minimum Borrowing Convertible Note dated August 28,2003 issued by Digital Angel Corporation to Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.2 to our Form 8-K, filed September 3, 2003)
10.19	Common Stock Purchase Warrant dated August 28, 2003 to purchase 115,000 shares of common stock of Digital Angel Corporation issued by Digital Angel Corporation to Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.3 to our Form 8-K, filed September 3, 2003)
10.20	Security Agreement dated August 28, 2003 by and between Digital Angel Corporation and Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.4 to our Form 8-K, filed September 3, 2003)
10.21	Registration Rights Agreement dated August 28, 2003 by and between Digital Angel Corporation and Laurus Master Fund, Ltd. (incorporated by reference to Exhibit 10.4 to our Form 8-K, filed September 3, 2003)
16.1	Letter from BDO Seidman, LLP regarding Change in Certifying Accountant (incorporated by reference to Exhibit 16 to our 8-K filed April 25, 2002)
16.2	Letter from Grant Thornton LLP regarding Change in Certifying Accountant (incorporated by reference to Exhibit 16 to our 8-K filed May 20, 2002)
21	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21 to our Registration Statement on Form S-1 dated November 1, 2002)

DIGITAL ANGEL CORPORATION AND SUBSIDIARIES

INDEX TO FINANCIAL STATEMENTS

Consolidated Financial Statements

INDEPENDENT AUDITORS REPORT

Board of Directors and Stockholders of

Digital Angel Corporation

We have audited the accompanying consolidated balance sheets of Digital Angel Corporation and subsidiaries (the Company) as of December 31, 2003 and 2002 and the related consolidated statements of operations, changes in stockholders equity and cash flows for the years then ended. 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 conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements enumerated to above present fairly, in all material respects, the consolidated financial position of Digital Angel Corporation and subsidiaries as of December 31, 2003 and 2002, and the consolidated results of their operations and their consolidated cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

As discuused in Note 1 to the consolidated financial statements, the Company adopted the standard of addressing financial accounting and reporting for goodwill subsequent to an acquistion.

In connection with our audit of the financial statements referred to above, we audited Schedule II - Valuation and Qualifying Accounts for 2003 and 2002. In our opinion, this schedule, when considered in relation to the financial statements taken as a whole, presents fairly, in all material respects, the information stated therein.

Eisner LLP

Florham Park, New Jersey
February 20, 2004
with respect to the eigth paragraph of Note 1 and the second item of Note 21, March 1, 2004

REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of

Applied Digital Solutions, Inc. and Subsidiaries:

In our opinion, the accompanying combined statements of operations, changes in stockholders equity and cash flows for the year ended December 31, 2001 listed in the index under Item 16(a) and described on page F-1 present fairly, in all material respects, the results of operations and cash flows of the Advanced Wireless Group (the Company), comprised of the business of Applied Digital Solutions, Inc. and Subsidiaries as described in the Basis of Presentation section of Note 1 to the combined financial statements for the year ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule for the year ended December 31, 2001 listed in the index appearing under Item 15(d) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related financial statements. These financial statements are the responsibility of the Company s management; our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The accompanying combined financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered significant losses from operations and has not generated positive cash flows from operations in the period ended December 31, 2001. These factors raise substantial doubt about the Company s ability to continue as a going concern. The combined financial statements do not include any adjustments that might result from the outcome of this uncertainty.

PricewaterhouseCoopers LLP

St. Louis, Missouri

May 9, 2002, except for the impact of the adoption of SFAS No. 142

for 2001 as included in Note 1 and the segment information for

2001 as included in Note 17, which are as of October 28, 2002

DIGITAL ANGEL CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)

	December 31, 2003	December 31, 2002
Assets (Note 8)		
Current Assets		
Cash	**$ 894**	$ 214
Restricted cash	**765**	
Accounts receivable, net of allowance for doubtful accounts of $212 and $296 in 2003 and 2002, respectively	**3,853**	4,126
Inventories	**6,589**	4,945
Other current assets	**828**	1,478
Total Current Assets	**12,929**	10,763
Property and Equipment, net	**7,665**	7,769
Goodwill and Other Intangible Assets, net	**45,608**	48,893
Other Assets, net	**1,105**	373
	$ 67,307	$ 67,798
Liabilities and Stockholders Equity		
Current Liabilities		
Line of credit and current maturities of long-term debt	**$ 5,918**	$ 816
Accounts payable	**5,297**	4,142
Accrued expenses and other current liabilities	**3,232**	3,637
Deferred revenue	**1,212**	67
Due to Applied Digital Solutions, Inc.	**347**	462
Total Current Liabilities	**16,006**	9,124
Long-Term Debt and Notes Payable	**2,818**	3,314
Deferred Revenue		50
Total Liabilities	**18,824**	12,488
Commitments and Contingencies (Notes 8, 11 and 15)		
Minority Interest		298

Stockholders Equity (See Note 1)				
Preferred stock: Authorized 1,000 in 2003, of $1.75 par value, none issued or outstanding				
Common stock: Authorized 95,000 shares in 2003, of $.005 par value; 28,941 shares issued and 28,891 shares outstanding in 2003 and 26,568 shares issued and 26,518 shares outstanding in 2002		**144**		133
Additional paid-in capital		**171,909**		169,166
Accumulated deficit		**(123,517)**		(114,059)
Treasury stock (carried at cost, 50 shares)		**(43)**		(43)
Accumulated other comprehensive loss		**(10)**		(185)
Total Stockholders Equity		**48,483**		55,012
	$	**67,307**	$	67,798

See the accompanying notes to financial statements.

DIGITAL ANGEL CORPORATION AND SUBSIDIARIES

STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Digital Angel Corporation and Subsidiaries (Consolidated) 2003	Digital Angel Corporation and Subsidiaries (Consolidated) For the Years Ended December 31, 2002	Advanced Wireless Group (Combined) 2001
Product revenue	**$ 33,748**	$ 30,946	$ 33,220
Service revenue	**2,964**	3,297	2,691
Total net revenue	**36,712**	34,243	35,911
Cost of products sold	**20,095**	18,293	20,252
Cost of services sold	**1,172**	2,216	2,047
Gross profit	**15,445**	13,734	13,612
Selling, general and administrative expenses	**16,764**	37,345	22,027
Management fees - Applied Digital Solutions, Inc.		193	771
Research and development expenses	**4,898**	3,034	5,244
Asset impairment charge	**2,986**	63,818	726
Loss from operations	**(9,203)**	(90,656)	(15,156)
Interest income	**(15)**	(2)	(17)
Interest expense - Applied Digital Solutions, Inc.		1,806	1,591
Interest expense - others	**921**	303	528
Other income	**(353)**	(599)	
Loss before provision for taxes, minority interest share of losses and equity in net loss of affiliate	**(9,756)**	(92,164)	(17,258)
Provision for income taxes			41
Loss before minority interest share of losses and equity in net loss of affiliate	**(9,756)**	(92,164)	(17,299)
Minority interest share of losses	**298**	96	217
Equity in net loss of MAS prior to merger		(291)	(327)

Net loss	**$**	**(9,458)**	$	(92,359)	$	(17,409)
Net loss per common share - basic and diluted	**$**	**(0.35)**	$	(3.76)	$	(0.93)
Weighted average number of common shares outstanding - basic and diluted		**26,959**		24,578		18,750

See the accompanying notes to financial statements.

DIGITAL ANGEL CORPORATION AND SUBSIDIARIES

STATEMENTS OF CHANGES IN STOCKHOLDERS EQUITY

(In thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stockholders Equity
	Number	Amount					
Balance - December 31, 2000	18,750	$ 94	$ 92,327	$ (4,291)	$	$ (321)	$ 87,809
Net loss				(17,409)			(17,409)
Comprehensive loss foreign currency translation						(186)	(186)
Total comprehensive loss		210,463		59,828	—	145,117	
Other long-term liabilities	33,272	8,292		3,346	—	44,910	
Total liabilities	1,225,911	403,898		129,971	(30,741)	1,729,039	
Mezzanine equity:							
Redeemable noncontrolling interest	—	—		372,861	—	372,861	
Stockholders' equity before noncontrolling interest	1,499,095	2,220,008		(210,947)	(2,058,577)	1,449,579	
Noncontrolling interest	—	—		855,400	—	855,400	
Total liabilities and stockholders' equity	$2,725,006	$ 2,623,906		$1,147,285	$(2,089,318)	$ 4,406,879	

28

Condensed Consolidated Balance Sheet as of December 31, 2015

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Assets					
Current assets:					
Cash	$78,474	$57,800	$ 15,627	$—	$ 151,901
Accounts receivable	147	140,493	14,174	—	154,814
Receivable from affiliates	27,670	—	4,501	(32,171)	—
Prepaid expenses, deposits and other assets	4,377	817	294	—	5,488
Derivative instruments	47,262	139,698	—	—	186,960
Total current assets	157,930	338,808	34,596	(32,171)	499,163
Investments in subsidiaries	2,378,293	113,268	—	(2,491,561)	—
Gas collateral account	—	3,995	82	—	4,077
Property, plant and equipment, net	21,442	2,382,878	865,043	(26,232)	3,243,131
Deferred financing costs, net	3,896	—	4,915	—	8,811
Goodwill	—	—	39,142	—	39,142
Intangible assets, net	—	—	46,159	—	46,159
Other non-current assets	32,590	76,025	—	—	108,615
Total assets	$2,594,151	$2,914,974	$ 989,937	$(2,549,964)	$ 3,949,098
Liabilities and stockholders’ equity					
Current liabilities:					
Accounts payable	$4,178	$48,191	$ 31,184	$—	$ 83,553
Royalties payables	—	40,572	—	—	40,572
Accrued capital expenditures	—	45,240	34,507	—	79,747
Leasehold payables	—	17,338	—	—	17,338
Other accrued liabilities	36,286	71,649	3,367	(32,171)	79,131
Total current liabilities	40,464	222,990	69,058	(32,171)	300,341
Long-term liabilities:					
Long-term debt	1,275,790	—	160,000	—	1,435,790
Leasehold payable	—	6,289	—	—	6,289
Deferred tax liabilities	47,667	299,741	19,911	(95,331)	271,988
Other long-term liabilities	19,432	7,661	3,129	—	30,222
Total liabilities	1,383,353	536,681	252,098	(127,502)	2,044,630
Stockholders’ equity before noncontrolling interest	1,210,798	2,378,293	113,268	(2,422,462)	1,279,897
Noncontrolling interest	—	—	624,571	—	624,571
Total liabilities and stockholders’ equity	$2,594,151	$2,914,974	$ 989,937	$(2,549,964)	$ 3,949,098

Condensed Consolidated Statement of Operations for the Three Months Ended June 30, 2016

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Operating revenues:					
Natural gas, oil and NGL sales	$—	$122,312	$ —	$—	$122,312
Gathering, compression and water distribution	—	—	58,420	(34,692)	23,728
Other revenue	—	9,958	—	—	9,958
Total operating revenues	—	132,270	58,420	(34,692)	155,998
Operating expenses:					
Lease operating	—	9,038	—	—	9,038
Gathering, compression and transportation	—	51,307	—	(24,138)	27,169
Production taxes and impact fees	—	2,659	—	—	2,659
Exploration	—	5,548	—	—	5,548
Midstream operation and maintenance	—	—	4,602	(47)	4,555
Incentive unit income	—	14,141	699	—	14,840
Acquisition expense	—	—	84	—	84
General and administrative	—	18,413	10,859	—	29,272
Depreciation, depletion and amortization	—	79,516	8,412	(3,176)	84,752
Amortization of intangible assets	—	—	403	—	403
Other expense	—	11,096	361	—	11,457
Total operating expenses	—	191,718	25,420	(27,361)	189,777
Operating (loss) income	—	(59,448)	33,000	(7,331)	(33,779)
Interest expense	(22,853)	(24)	(1,925)	—	(24,802)
Other income	558	1,991	—	—	2,549
Gain on derivative instruments	(75,167)	(126,388)	—	—	(201,555)
Amortization of deferred financing costs	(1,122)	—	(496)	—	(1,618)
Equity income (loss) in affiliate	(198,205)	(50,201)	—	248,406	—
Income (loss) before income taxes	(296,789)	(234,070)	30,579	241,075	(259,205)
Income tax benefit (expense)	120,496	32,689	(52,296)	19,607	120,496
Net income (loss)	(176,293)	(201,381)	(21,717)	260,682	(138,709)
Less: Net income attributable to the noncontrolling interests	—	—	(17,977)	—	(17,977)
Net income (loss) attributable to Rice Energy	(176,293)	(201,381)	(39,694)	260,682	(156,686)
Less: accretion and preferred dividends on redeemable noncontrolling interests	—	—	(7,944)	—	(7,944)
Net income (loss) attributable to Rice Energy Inc. common stockholders	$(176,293)	$(201,381)	$ (47,638)	$260,682	$(164,630)

30

Condensed Consolidated Statement of Operations for the Three Months Ended June 30, 2015

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Operating revenues:					
Natural gas, oil and NGL sales	$—	$100,890	$ —	$ —	$ 100,890
Gathering, compression and water distribution	—	—	34,812	(23,246)	11,566
Other revenue	—	438	—	—	438
Total operating revenues	—	101,328	34,812	(23,246)	112,894
Operating expenses:					
Lease operating	—	11,090	—	—	11,090
Gathering, compression and transportation	—	32,691	—	(15,849)	16,842
Production taxes and impact fees	—	1,694	—	—	1,694
Exploration	—	212	144	—	356
Midstream operation and maintenance	—	—	2,801	—	2,801
Incentive unit expense	—	21,885	1,214	—	23,099
General and administrative	—	19,127	5,510	—	24,637
Depreciation, depletion and amortization	—	73,119	3,553	(532)	76,140
Amortization of intangible assets	—	—	408	—	408
Other expense	—	1,159	839	—	1,998
Total operating expenses	—	160,977	14,469	(16,381)	159,065
Operating (loss) income	—	(59,649)	20,343	(6,865)	(46,171)
Interest expense	(22,381)	(18)	(960)	—	(23,359)
Other income	261	774	—	—	1,035
Gain on derivative instruments	(4,866)	1,156	—	—	(3,710)
Amortization of deferred financing costs	(1,054)	—	(252)	—	(1,306)
Equity (loss) income of joint ventures	(62,845)	912	—	61,933	—
(Loss) income before income taxes	(90,885)	(56,825)	19,131	55,068	(73,511)
Income tax benefit (expense)	9,992	(6,020)	(5,189)	11,209	9,992
Net (loss) income	(80,893)	(62,845)	13,942	66,277	(63,519)
Less: Net income attributable to the noncontrolling interests	—	—	(6,164)	—	(6,164)
Net (loss) income attributable to Rice Energy	$(80,893)	$(62,845)	$ 7,778	$ 66,277	$ (69,683)

31

Condensed Consolidated Statement of Operations for the Six Months Ended June 30, 2016

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Operating revenues:					
Natural gas, oil and NGL sales	$—	$234,754	$ —	$—	$234,754
Gathering, compression and water distribution	—	—	123,614	(75,334)	48,280
Other revenue	—	12,906	—	—	12,906
Total operating revenues	—	247,660	123,614	(75,334)	295,940
Operating expenses:					
Lease operating	—	20,109	—	—	20,109
Gathering, compression and transportation	—	99,510	—	(44,209)	55,301
Production taxes and impact fees	—	4,310	—	—	4,310
Exploration	—	6,538	—	—	6,538
Midstream operation and maintenance	—	—	14,224	(47)	14,177
Incentive unit income	—	37,012	1,970	—	38,982
Acquisition expense	—	—	556	—	556
Impairment of fixed assets	—	2,595	—	—	2,595
General and administrative	—	34,854	19,291	—	54,145
Depreciation, depletion and amortization	—	154,472	14,871	(5,406)	163,937
Amortization of intangible assets	—	—	811	—	811
Other expense	—	15,499	149	—	15,648
Total operating expenses	—	374,899	51,872	(49,662)	377,109
Operating (loss) income	—	(127,239)	71,742	(25,672)	(81,169)
Interest expense	(45,616)	(34)	(3,673)	—	(49,323)
Other income	748	2,013	1	—	2,762
Gain on derivative instruments	(59,040)	(72,336)	—	—	(131,376)
Amortization of deferred financing costs	(2,287)	—	(882)	—	(3,169)
Equity income (loss) in affiliate	(185,508)	(42,677)	—	228,185	—
Income (loss) before income taxes	(291,703)	(240,273)	67,188	202,513	(262,275)
Income tax benefit (expense)	126,871	49,360	(39,918)	(9,442)	126,871
Net income (loss)	(164,832)	(190,913)	27,270	193,071	(135,404)
Less: Net income attributable to the noncontrolling interests	—	—	(38,870)	—	(38,870)
Net income (loss) attributable to Rice Energy	(164,832)	(190,913)	(11,600)	193,071	(174,274)
Less: accretion and preferred dividends on redeemable noncontrolling interests	—	—	(11,402)	—	(11,402)
Net income (loss) attributable to Rice Energy Inc. common stockholders	$(164,832)	$(190,913)	$ (23,002)	$ 193,071	$(185,676)

32

Condensed Consolidated Statement of Operations for the Six Months Ended June 30, 2015

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Operating revenues:					
Natural gas, oil and NGL sales	$—	$ 197,802	$ —	$ —	$ 197,802
Gathering, compression and water distribution	—	—	64,259	(42,892)	21,367
Other revenue	—	3,264	—	—	3,264
Total operating revenues	—	201,066	64,259	(42,892)	222,433
Operating expenses:					
Lease operating	—	22,681	—	—	22,681
Gathering, compression and transportation	—	60,367	—	(29,105)	31,262
Production taxes and impact fees	—	3,148	—	—	3,148
Exploration	—	951	144	—	1,095
Midstream operation and maintenance	—	—	6,132	—	6,132
Incentive unit expense	—	44,383	2,174	—	46,557
General and administrative	—	34,645	10,736	—	45,381
Depreciation, depletion and amortization	—	132,256	6,997	(532)	138,721
Amortization of intangible assets	—	—	816	—	816
Other expense	—	3,050	839	—	3,889
Total operating expenses	—	301,481	27,838	(29,637)	299,682
Operating (loss) income	—	(100,415)	36,421	(13,255)	(77,249)
Interest expense	(37,806)	(50)	(1,632)	—	(39,488)
Other income	355	832	9	—	1,196
Gain on derivative instruments	9,099	48,558	—	—	57,657
Amortization of deferred financing costs	(1,906)	—	(503)	—	(2,409)
Equity (loss) income of joint ventures	(69,570)	60	—	69,510	—
(Loss) income before income taxes	(99,828)	(51,015)	34,295	56,255	(60,293)
Income tax benefit (expense)	1,462	(18,555)	(10,279)	28,834	1,462
Net (loss) income	(98,366)	(69,570)	24,016	85,089	(58,831)
Less: Net income attributable to the noncontrolling interests	—	—	(10,699)	—	(10,699)
Net (loss) income attributable to Rice Energy	$ (98,366)	$ (69,570)	$ 13,317	$ 85,089	$ (69,530)

33

Condensed Consolidated Statement of Cash Flows for the Six Months Ended June 30, 2016

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Net cash provided by (used in) operating activities	$(4,435)	$155,442	$ 82,964	$(31,077)	$202,894
Capital expenditures for property and equipment	(8,045)	(378,275)	(129,286)	31,077	(484,529)
Acquisition of midstream assets	—	—	(7,744)	—	(7,744)
Investment in subsidiaries	62,838	300,000	—	(362,838)	—
Net cash provided by (used in) investing activities	54,793	(78,275)	(137,030)	(331,761)	(492,273)
Proceeds from borrowings	—	—	120,000	—	120,000
Repayments of debt obligations	(690)	—	(255,000)	—	(255,690)
Debt issuance costs	32	—	(701)	—	(669)
Shares of common stock issued in April 2016 offering, net of offering costs	311,764	—	—	—	311,764
Common units issued in the Partnership's June 2016 offering, net of offering costs	—	—	164,150	—	164,150
Common units issued in the Partnership's ATM program, net of offering costs	—	—	15,782	—	15,782
Distributions to the Partnership’s public unitholders	—	—	(17,636)	—	(17,636)
Proceeds from issuance of mezzanine equity, net of offering costs	—	—	368,767	—	368,767
Preferred dividends to mezzanine equity holders	—	—	(3,576)	—	(3,576)
Proceeds from conversion of warrants	100	—	—	—	100
Parent distributions, net	—	(62,838)	(300,000)	362,838	—
Net cash (used in) provided by financing activities	311,206	(62,838)	91,786	362,838	702,992
Net increase in cash	361,564	14,329	37,720	—	413,613
Cash, beginning of year	78,474	57,800	15,627	—	151,901
Cash, end of period	$440,038	$72,129	$ 53,347	$ —	$565,514

34

Condensed Consolidated Statement of Cash Flows for the Six Months Ended June 30, 2015

(in thousands)	Parent	Guarantors	Non-Guarantors	Eliminations	Consolidated
Net cash (used in) provided by operating activities	$(70,784)	$182,183	$ 7,321	$ (13,787)	$ 104,933
Capital expenditures for property and equipment	(1,341)	(451,301)	(183,942)	13,787	(622,797)
Proceeds from sale of interest in gas properties	—	10,201	—	—	10,201
Investment in subsidiaries	(335,385)	(28,973)	—	364,358	—
Net cash (used in) provided by investing activities	(336,726)	(470,073)	(183,942)	378,145	(612,596)
Proceeds from borrowings	411,932	—	127,000	—	538,932
Repayments of debt obligations	(15,394)	(697)	—	—	(16,091)
Debt issuance costs	(8,505)	—	(21)	—	(8,526)
Offering costs related to the Partnership's IPO	—	—	(129)	—	(129)
Distributions to the Partnership's public unitholders	—	—	(5,977)	—	(5,977)
Parent distributions, net	—	335,385	28,973	(364,358)	—
Net cash provided by (used in) financing activities	388,033	334,688	149,846	(364,358)	508,209
Net (decrease) increase in cash	(19,477)	46,798	(26,775)	—	546
Cash, beginning of year	181,835	41,934	32,361	—	256,130
Cash, end of period	$162,358	$88,732	$ 5,586	$ —	$ 256,676

35

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in our 2015 Annual Report, as well as the condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report. The following discussion contains "forward-looking statements" that reflect our future plans, estimates, beliefs and expected performance. We caution that assumptions, expectations, projections, intentions, or beliefs about future events may, and often do, vary from actual results and the differences can be material. In light of these risks, uncertainties and assumptions, the forward-looking events discussed may not occur. See "Cautionary Statement Regarding Forward-Looking Statements." Also, see the risk factors and other cautionary statements described under the heading "Item 1A. Risk Factors" included elsewhere in this Quarterly Report. We do not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law.

Overview

Rice Energy is an independent natural gas and oil company engaged in the acquisition, exploration and development of natural gas, oil and NGL properties in the Appalachian Basin. We manage our business in three operating segments, which are managed separately due to their distinct operational differences - the Exploration and Production segment, the Rice Midstream Holdings segment and the Rice Midstream Partners segment. The Exploration and Production segment is responsible for the acquisition, exploration and development of natural gas, oil and NGL properties in the Appalachian Basin. The Rice Midstream Holdings segment is engaged in the gathering and compression of natural gas, oil and NGL production in Belmont and Monroe counties, Ohio. The Rice Midstream Partners segment is engaged in the gathering and compression of natural gas, oil and NGL production in Washington and Greene counties, Pennsylvania, and in the provision of water services to support the well completion services of us and third parties in Washington and Greene counties, Pennsylvania and Belmont County, Ohio.

Sources of Revenues

The substantial majority of our revenues are derived from the sale of natural gas and do not include the effects of derivatives. Our revenues may vary significantly from period to period as a result of changes in volumes of production sold or changes in realized prices. Our gathering, compression and water services revenues are primarily derived from our gathering and compression contracts in addition to fees charged to outside working interest owners.

The following table provides detail of our operating revenues from the condensed consolidated statements of operations for the three and six months ended June 30, 2016 and 2015.

	Three Months Ended June 30,		Six Months Ended June 30,	
(in thousands)	2016	2015	2016	2015
Natural gas sales	$121,312	$98,885	$232,866	$193,605
Oil and NGL sales	1,000	2,005	1,888	4,197
Gathering, compression and water services	23,728	11,566	48,280	21,367
Other revenue	9,958	438	12,906	3,264
Total operating revenues	$155,998	$112,894	$295,940	$222,433

36

NYMEX Henry Hub prompt month contract prices are widely-used benchmarks in the pricing of natural gas. The following table provides the high and low prices for NYMEX Henry Hub prompt month contract prices and our differential to the average of those benchmark prices for the periods indicated.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
NYMEX Henry Hub High ($/MMBtu)	$2.93	$3.07	$2.93	$3.30
NYMEX Henry Hub Low ($/MMBtu)	$1.71	$2.49	$1.64	$2.49
NYMEX Henry Hub Price ($/MMBtu)	$1.95	$2.72	$2.02	$2.80
Less: Average Basis Impact ($/MMBtu)	(0.27)	(0.74)	(0.31)	(0.67)
Plus: Btu Uplift (MMBtu/Mcf)	0.09	0.10	0.08	0.10
Pre-Hedge Realized Price ($/Mcf)	$1.77	$2.08	$1.79	$2.23

Consolidated Results of Operations

Below are some highlights of our financial and operating results for the three and six months ended June 30, 2016 and 2015:

- Our natural gas, oil and NGL sales were $122.3 million and $100.9 million in the three months ended June 30, 2016 and 2015, respectively, and $234.8 million and $197.8 million in the six months ended June 30, 2016 and 2015, respectively.
- Our production volumes were 68,946 MMcfe and 48,099 MMcfe in the three months ended June 30, 2016 and 2015, respectively, and 130,325 MMcfe and 87,720 MMcfe in the six months ended June 30, 2016 and 2015, respectively.
- Our gathering, compression and water distribution revenues were $23.7 million and $11.6 million in the three months ended June 30, 2016 and 2015, respectively, and $48.3 million and $21.4 million in the six months ended June 30, 2016 and 2015, respectively.
- Our per unit cash production costs were $0.56 per Mcfe and $0.62 per Mcfe in the three months ended June 30, 2016 and 2015, respectively, and $0.60 per Mcfe and $0.66 per Mcfe in the six months ended June 30, 2016 and 2015, respectively.

The following tables set forth selected operating and financial data for the three and six months ended June 30, 2016 and 2015:

	Three Months Ended June 30,			Six Months Ended June 30,		
	2016	2015	Change	2016	2015	Change
Natural gas sales (in thousands):	$121,312	$98,885	$22,427	$232,866	$193,605	$39,261
Oil and NGL sales (in thousands):	1,000	2,005	(1,005)	1,888	4,197	(2,309)
Natural gas, oil and NGL sales (in thousands):	$122,312	$100,890	$21,422	$234,754	$197,802	$36,952
Natural gas production (MMcf):	68,702	47,559	21,143	129,744	86,647	43,097
Oil and NGL production (MBbls):	41	90	(49)	97	179	(82)
Total production (MMcfe)	68,946	48,099	20,847	130,325	87,720	42,605
Average natural gas prices before effects of hedges per Mcf:	$1.77	$2.08	$(0.31)	$1.79	$2.23	$(0.44)
Average realized natural gas prices after effects of hedges per Mcf (1):	2.75	2.97	(0.22)	2.81	3.04	(0.23)
Average oil and NGL prices per Bbl:	24.56	22.24	2.32	19.50	23.46	(3.96)
Average costs per Mcfe:						
Lease operating	$0.13	$0.23	$(0.10)	$0.15	$0.26	$(0.11)
Gathering, compression and transportation	0.39	0.35	0.04	0.42	0.36	0.06
Production taxes and impact fees	0.04	0.04	—	0.03	0.04	(0.01)
General and administrative	0.42	0.51	(0.09)	0.42	0.52	(0.10)
Depreciation, depletion and amortization	1.23	1.58	(0.35)	1.26	1.58	(0.32)
Total gathering, compression and water distribution revenues (in thousands):	$23,728	$11,566	$12,162	$48,280	$21,367	$26,913

(1) The effect of hedges includes realized gains and losses on commodity derivative transactions.

38

(in thousands, except per share data)	Three Months Ended June 30, 2016	2015	Change	Six Months Ended June 30, 2016	2015	Change
Operating revenues:						
Natural gas, oil and NGL sales	$122,312	$100,890	$21,422	$234,754	$197,802	$36,952
Gathering, compression and water distribution	23,728	11,566	12,162	48,280	21,367	26,913
Other revenue	9,958	438	9,520	12,906	3,264	9,642
Total operating revenues	155,998	112,894	43,104	295,940	222,433	73,507
Operating expenses:						
Lease operating	9,038	11,090	(2,052)	20,109	22,681	(2,572)
Gathering, compression and transportation	27,169	16,842	10,327	55,301	31,262	24,039
Production taxes and impact fees	2,659	1,694	965	4,310	3,148	1,162
Exploration	5,548	356	5,192	6,538	1,095	5,443
Midstream operation and maintenance	4,555	2,801	1,754	14,177	6,132	8,045
Incentive unit expense	14,840	23,099	(8,259)	38,982	46,557	(7,575)
Acquisition expense	84	—	84	556	—	556
Impairment of fixed assets	—	—	—	2,595	—	2,595
General and administrative	29,272	24,637	4,635	54,145	45,381	8,764
Depreciation, depletion and amortization	84,752	76,140	8,612	163,937	138,721	25,216
Amortization of intangible assets	403	408	(5)	811	816	(5)
Other expense	11,457	1,998	9,459	15,648	3,889	11,759
Total operating expenses	189,777	159,065	30,712	377,109	299,682	77,427
Operating loss	(33,779)	(46,171)	12,392	(81,169)	(77,249)	(3,920)
Interest expense	(24,802)	(23,359)	(1,443)	(49,323)	(39,488)	(9,835)
Other income	2,549	1,035	1,514	2,762	1,196	1,566
(Loss) gain on derivative instruments	(201,555)	(3,710)	(197,845)	(131,376)	57,657	(189,033)
Amortization of deferred financing costs	(1,618)	(1,306)	(312)	(3,169)	(2,409)	(760)
Loss before income taxes	(259,205)	(73,511)	(185,694)	(262,275)	(60,293)	(201,982)
Income tax benefit	120,496	9,992	110,504	126,871	1,462	125,409
Net loss	(138,709)	(63,519)	(75,190)	(135,404)	(58,831)	(76,573)
Less: Net income attributable to noncontrolling interests	(17,977)	(6,164)	(11,813)	(38,870)	(10,699)	(28,171)
Net loss attributable to Rice Energy Inc.	(156,686)	(69,683)	(87,003)	(174,274)	(69,530)	(104,744)
Less: Preferred dividends and accretion on redeemable noncontrolling interests	(7,944)	—	(7,944)	(11,402)	—	(11,402)
Net loss attributable to Rice Energy Inc. common stockholders	$(164,630)	$(69,683)	$(94,947)	$(185,676)	$(69,530)	$(116,146)

39

Weighted average number of shares of common stock - basic	153,204	136,316	16,888	144,812	136,304	8,508
Weighted average number of shares of common stock - diluted	153,204	136,316	16,888	144,812	136,304	8,508
Earnings per share - basic	$ (1.07)	$ (0.51)	(0.56)	$ (1.28)	$ (0.51)	$ (0.77)
Earnings per share - diluted	$ (1.07)	$ (0.51)	(0.56)	$ (1.28)	$ (0.51)	$ (0.77)

Three Months Ended June 30, 2016 Compared to Three Months Ended June 30, 2015

Total operating revenues. The $43.1 million increase in total operating revenues was mainly a result of an increase in natural gas, oil and NGL production in the second quarter of 2016 compared to the second quarter of 2015 which was the result of increased drilling and completion activity, mainly in Washington County, Pennsylvania and Belmont County, Ohio. The impact of increased production volumes on operating revenues was partially offset by a decrease in realized prices. Our realized price in the second quarter of 2016 was $1.77 per Mcf compared to $2.08 per Mcf in the second quarter of 2015, in each case before the effect of hedges. Additionally, operating revenues were positively impacted by a $12.2 million increase in gathering, compression and water service revenues period-over-period. This increase primarily relates to increased third-party volumes and related revenues on existing gathering contracts.

Lease operating. The $2.1 million decrease in lease operating expenses was primarily attributable to improved efficiencies relating to produced water recycling and reduced rental costs as a result of a reduced flowback period in the second quarter of 2016 as compared to the prior period.

Gathering, compression and transportation. Gathering, compression and transportation expense for the second quarter of 2016 of $27.2 million is mainly comprised of $22.3 million of transportation contracts with third parties and $4.8 million of gathering charges from third parties. The $10.3 million increase in such expense was primarily attributable to increased firm transportation contracts in the second quarter of 2016 compared to the second quarter of 2015.

Midstream operation and maintenance. The $1.8 million increase in midstream operation and maintenance expense period-over-period was primarily due to an increase in on and off pad water transfer costs and water procurement, in addition to increased contract labor expenses.

Incentive unit expense. Incentive unit expense decreased $8.3 million period-over-period. In the second quarter of 2015, the $23.1 million expense consisted of $7.0 million of non-cash compensation expense related to the Rice Energy Holdings LLC (“Rice Holdings”) incentive units and $26.7 million related to payments made to certain holders of NGP Holdings incentive units, offset by $10.6 million of non-cash income related to the quarterly fair market value adjustment for the NGP Holdings incentive units. In the second quarter of 2016, the $14.8 million expense consisted of $5.9 million of non-cash compensation expense related to the Rice Holdings incentive units and $9.0 million of compensation expense related to the final fair market value adjustment for the NGP Holdings incentive units. No future expense will be recognized related to the NGP Holdings incentive units as a result of the April 2016 settlement of the remaining NGP Holdings incentive unit obligation. See “Item 1. Financial Statements—Notes to Condensed Consolidated Financial Statements—10. Incentive Units” for additional information.

General and administrative. The $4.6 million increase in general and administrative expense period-over-period was primarily attributable to the addition of personnel to support our growth activities and related salary and employee benefits. At June 30, 2016, we had 414 employees as compared to 337 employees at June 30, 2015. Additionally, included in general and administrative expense is equity compensation expense of $6.1 million and $4.2 million for the second quarter of 2016 and 2015, respectively.

DD&A. The $8.6 million increase in depreciation, depletion and amortization period-over-period was primarily a result of an increase in production driven by a greater number of producing wells in the second quarter of 2016 compared to second quarter of 2015, which is consistent with our expanded drilling program. In addition, the increase was also the result of an increase in midstream assets being in service in the second quarter of 2016 as compared to the second quarter of 2015 and the related depreciation on those assets.

Interest expense. The $1.4 million increase in interest expense period-over-period was a result of higher levels of average borrowings outstanding during the second quarter of 2016 as compared to the second quarter of 2015 in order to fund our capital programs.

(Loss) gain on derivative instruments. The $201.6 million loss on derivative contracts in the second quarter of 2016 is comprised of cash receipts of $67.4 million on the settlement of maturing contracts, offset by a $268.9 million unrealized loss in the second quarter of 2016 due to the increase in commodity prices as compared to our hedged prices. The $3.7 million loss on

40

derivative contracts in the second quarter of 2015 was comprised of $42.5 million of cash receipts on the settlement of maturing contracts and a $46.2 million unrealized loss.

Income tax benefit. The $110.5 million increase in the income tax benefit period-over-period was attributable to a decrease in taxable income, including an increase to income attributable to noncontrolling interests.

Six Months Ended June 30, 2016 Compared to Six Months Ended June 30, 2015

Total operating revenues. The $73.5 million increase in total operating revenues period-over-period was mainly a result of an increase in natural gas, oil and NGL production for the six months ended June 30, 2016 compared to the six months ended June 30, 2015 which was the result of increased drilling and completion activity, mainly in Washington County, Pennsylvania and Belmont County, Ohio. The impact of increased production volumes on operating revenues was partially offset by a decrease in realized prices. Our realized price for the six months ended June 30, 2016 was $1.79 per Mcf compared to $2.23 per Mcf for the six months ended June 30, 2015, in each case before the effect of hedges. Additionally, operating revenues were positively impacted by a $26.9 million increase in gathering, compression and water service revenues period-over-period. This increase primarily relates to increased third-party volumes and related revenues on existing gathering contracts.

Lease operating. The $2.6 million decrease in lease operating expenses period-over-period was primarily attributable to improved efficiencies relating to produced water recycling and reduced rental costs as a result of a reduced flowback period in the six months ended June 30, 2016 as compared to the prior period.

Gathering, compression and transportation. Gathering, compression and transportation expense for the six months ended June 30, 2016 of $55.3 million is mainly comprised of $46.0 million of transportation contracts with third parties and $9.3 million of gathering charges from third parties. The $24.0 million increase in such expense was primarily attributable to increased firm transportation contracts in the six months ended June 30, 2016 compared to the six months ended June 30, 2015.

Midstream operation and maintenance. The $8.0 million increase in midstream operation and maintenance expense period-over-period was primarily due to an increase in on and off pad water transfer costs and water procurement, in addition to increased contract labor expenses.

Incentive unit expense. Incentive unit expense decreased $7.6 million period-over-period. In the six months ended June 30, 2015, the $46.6 million expense consisted of $20.7 million of non-cash compensation expense related to the Rice Holdings incentive units and $26.7 million related to payments made to certain holders of NGP Holdings incentive units, offset by $0.8 million of non-cash income related to the quarterly fair market value adjustment for the NGP Holdings incentive units. In the six months ended June 30, 2016, the $39.0 million expense consisted of $11.7 million of non-cash compensation expense related to the Rice Holdings incentive units and $27.3 million of compensation expense related to the final fair market value adjustment for the NGP Holdings incentive units. No future expense will be recognized related to the NGP Holdings incentive units as a result of the April 2016 settlement of the remaining NGP Holdings incentive unit obligation. See “Item 1. Financial Statements—Notes to Condensed Consolidated Financial Statements—10. Incentive Units” for additional information.

General and administrative. The $8.8 million increase in general and administrative expense period-over-period was primarily attributable to the addition of personnel to support our growth activities and related salary and employee benefits. At June 30, 2016, we had 414 employees as compared to 337 employees at June 30, 2015. Additionally, included in general and administrative expense is equity compensation expense of $10.8 million and $7.5 million in 2016 and 2015, respectively.

DD&A. The $25.2 million increase in depreciation, depletion and amortization period-over-period was primarily a result of an increase in production driven by a greater number of producing wells in the six months ended June 30, 2016 compared to the six months ended June 30, 2015, which is consistent with our expanded drilling program. In addition, the increase was also the result of an increase in midstream assets being in service in the six months ended June 30, 2016 as compared to the six months ended June 30, 2015 and the related depreciation on those assets.

Interest expense. The $9.8 million increase in interest expense period-over-period was a result of higher levels of average borrowings outstanding during the six months ended June 30, 2016 as compared to the six months ended June 30, 2015 in order to fund our capital programs.

(Loss) gain on derivative instruments. The $131.4 million loss on derivative contracts in the six months ended June 30, 2016 is comprised of cash receipts of $131.5 million on the settlement of maturing contracts, offset by a $262.8 million unrealized loss due to the increase in commodity prices as compared to our hedged prices. The $57.7 million gain on derivative contracts in the six months ended June 30, 2015 was comprised of $69.9 million of cash receipts on the settlement of maturing contracts offset by a $12.2 million unrealized loss.

41

Income tax benefit. The $125.4 million increase in the income tax benefit period-over-period was attributable to a decrease in taxable income, including an increase to income attributable to noncontrolling interests.

Business Segment Results of Operations

As a result of changes to our operations and organizational structure in the first quarter of 2016, we now manage our business in three operating segments: Exploration and Production, Rice Midstream Holdings and Rice Midstream Partners. We evaluate our business segments based on their contribution to our consolidated results based on operating income. Please see “Item 1. Financial Statements—Notes to Condensed Consolidated Financial Statements—6. Financial Information by Business Segment” for a reconciliation of each segment’s operating income to our consolidated operating income. All prior period results have been revised to reflect the new reporting segment structure.

The following tables set forth selected operating and financial data for each business segment during the three and six months ended June 30, 2016 compared to the three and six months ended June 30, 2015:

Exploration and Production Segment

	Three Months Ended June 30,			Six Months Ended June 30,		
(in thousands, except volumes)	2016	2015	Change	2016	2015	Change
Operating revenues:						
Natural gas, oil and NGL sales	$122,312	$100,890	$21,422	$234,754	$197,802	$36,952
Other revenue	9,958	438	9,520	12,906	3,264	9,642
Total operating revenues	132,270	101,328	30,942	247,660	201,066	46,594
Operating expenses:						
Lease operating	9,038	11,090	(2,052)	20,108	22,681	(2,573)
Gathering, compression and transportation	51,307	32,691	18,616	99,510	60,367	39,143
Production taxes and impact fees	2,659	1,694	965	6,538	3,148	3,390
Exploration	5,548	356	5,192	4,310	1,095	3,215
Incentive unit expense	14,141	21,885	(7,744)	37,012	44,383	(7,371)
Impairment of fixed assets	—	—	—	2,595	—	2,595
General and administrative	18,413	19,126	(713)	34,854	34,645	209
Depreciation, depletion and amortization	79,515	73,342	6,173	154,471	132,256	22,215
Other expense	11,097	1,159	9,938	15,500	3,050	12,450
Total operating expenses	191,718	161,343	30,375	374,898	301,625	73,273
Operating loss	$(59,448)	$(60,015)	$567	$(127,238)	$(100,559)	$(26,679)
Operating volumes:						
Natural gas production (MMcf):	68,702	47,559	21,143	129,744	86,647	43,097
Oil and NGL production (MBbls):	41	90	(49)	97	179	(82)
Total production (MMcfe)	68,946	48,099	20,847	130,325	87,720	42,605

42

Three Months Ended June 30, 2016 Compared to Three Months Ended June 30, 2015
Total operating revenues. The $21.4 million increase in natural gas, oil and NGL sales was mainly a result of an increase in production in the second quarter of 2016 compared to the second quarter of 2015 as discussed above. The impact of increased production volumes on operating revenues was partially offset by a decrease in realized prices. Our realized price in the second quarter of 2016 was $1.77 per Mcf compared to $2.08 per Mcf in the second quarter of 2015, in each case before the effect of hedges.
Lease operating. The $2.1 million decrease in lease operating expenses was primarily attributable to improved efficiencies relating to produced water recycling and reduced rental costs as a result of a reduced flowback period in the second quarter of 2016, as compared to the prior period.
Gathering, compression and transportation. Gathering, compression and transportation expense of $51.3 million for the second quarter of 2016 includes $29.0 million of affiliate and third party gathering fees and $22.3 million of transportation contracts with third parties. The $18.6 million increase in gathering, compression and transportation expenses was mainly due to increased volumes under the gathering agreements with the Rice Midstream Partners segment and the Rice Midstream Holdings segment, as well as increased firm transportation expense in the second quarter of 2016 compared to the second quarter of 2015.
General and administrative. The $0.7 million decrease in segment general and administrative expense period-over-period is attributable to the decrease in the allocation costs associated with personnel and administrative expenses as the Rice Midstream Holdings segment and Rice Midstream Partners segment continue to grow. Included in general and administrative expense is stock compensation expense of $3.2 million and $3.0 million for the three months ended June 30, 2016 and 2015, respectively.
DD&A. The $6.2 million increase in depreciation, depletion and amortization was a result of an increase in production due to a greater number of producing wells in the second quarter of 2016 compared to 2015, which is consistent with our expanded drilling program.
Six Months Ended June 30, 2016 Compared to Six Months Ended June 30, 2015
Total operating revenues. The $37.0 million increase in natural gas, oil and NGL sales was mainly a result of an increase in production in the six months ended June 30, 2016 compared to the six months ended June 30, 2015, as discussed above. The impact of increased production volumes on operating revenues was partially offset by a decrease in realized prices. Our realized price for the six months ended June 30, 2016 was $1.79 per Mcf compared to $2.23 per Mcf in the six months ended June 30, 2015, in each case before the effect of hedges.
Lease operating. The $2.6 million decrease in lease operating expenses period-over-period was primarily attributable to improved efficiencies relating to produced water recycling and reduced rental costs as a result of a reduced flowback period in the six months ended June 30, 2016, as compared to the prior period.
Gathering, compression and transportation. Gathering, compression and transportation expense of $99.5 million for the six months ended June 30, 2016 includes $53.5 million of affiliate and third party gathering fees and $46.0 million of transportation contracts with third parties. The $39.1 million increase in gathering, compression and transportation expenses was mainly due to increased volumes under the gathering agreements with the Rice Midstream Partners segment and the Rice Midstream Holdings segment, as well as increased firm transportation expense in the six months ended June 30, 2016 compared to the six months ended June 30, 2015.
General and administrative. The $0.2 million increase in segment general and administrative expense period-over-period was primarily attributable to costs associated with personnel to support our growth activities. Included in general and administrative expense is stock compensation expense of $5.8 million and $5.2 million for the six months ended June 30, 2016 and 2015, respectively.
DD&A. The $22.2 million increase in depreciation, depletion and amortization period-over-period was a result of an increase in production due to a greater number of producing wells in the six months ended June 30, 2016 compared to the six months ended June 30, 2015, which is consistent with our expanded drilling program.

Rice Midstream Holdings Segment

	Three Months Ended June 30,			Six Months Ended June 30,		
(in thousands, except volumes)	2016	2015	Change	2016	2015	Change
Operating revenues:						
Gathering revenues	$9,240	$6,252	$2,988	$17,776	$9,188	$8,588
Compression revenues	2,633	—	2,633	4,748	—	4,748
Total operating revenues	11,873	6,252	5,621	22,524	9,188	13,336
Operating expenses:						
Midstream operation and maintenance	462	98	364	1,471	525	946
Incentive unit expense	699	525	174	1,970	1,051	919
General and administrative	5,071	1,309	3,762	8,827	2,340	6,487
Acquisition expense	84	—	84	484	—	484
Depreciation, depletion and amortization	1,556	377	1,179	2,645	959	1,686
Total operating expenses	7,872	2,309	5,563	15,397	4,875	10,522
Operating income	$4,001	$3,943	$58	$7,127	$4,313	$2,814
Operating volumes:						
Gathering volumes (MDth/d):	658	232	426	556	172	384
Compression volumes (MDth/d):	461	—	461	412	—	412

Three Months Ended June 30, 2016 Compared to Three Months Ended June 30, 2015

Total operating revenues. The $5.6 million increase in total operating revenues was mainly the result of an increase in affiliate volumes associated with the gathering contracts between the Exploration and Production segment and the Rice Midstream Holdings segment, as well as an increase in third-party gathering volumes which include revenues associated with the contracts for Strike Force Midstream LLC (“Strike Force Midstream”).

Midstream operation and maintenance. Midstream operation and maintenance expense increased $0.4 million, primarily due to additional contract labor for the maintenance of existing assets.

General and administrative. The $3.8 million increase in general and administrative expense period-over-period was primarily attributable to costs associated with personnel to support the Rice Midstream Holdings segment’s growth activities. Included in general and administrative expense is stock compensation expense of $1.7 million and $0.1 million for the second quarter of 2016 and 2015, respectively.

DD&A. The $1.2 million increase in depreciation, depletion and amortization was mainly the result of an increase in midstream assets being in service in the second quarter of 2016 as compared to the second quarter of 2015 and the related depreciation on those assets.

Six Months Ended June 30, 2016 Compared to Six Months Ended June 30, 2015

Total operating revenues. The $13.3 million increase in total operating revenues period-over-period was mainly the result of an increase in affiliate volumes associated with the gathering contracts between the Exploration and Production segment and the Rice Midstream Holdings segment, as well as an increase in third-party gathering volumes which include revenues associated with the contracts for Strike Force Midstream.

Midstream operation and maintenance. Midstream operation and maintenance expense increased $0.9 million period-over-period, primarily due to additional contract labor for the maintenance of existing assets.

General and administrative. The $6.5 million increase in general and administrative expense period-over-period was primarily attributable to costs associated with personnel to support the Rice Midstream Holdings segment’s growth activities.

Included in general and administrative expense is stock compensation expense of $2.9 million and $0.1 million for the second quarter of 2016 and 2015, respectively.

DD&A. The $1.7 million increase in depreciation, depletion and amortization period-over-period was mainly the result of an increase in midstream assets being in service in the six months ended June 30, 2016 as compared to the six months ended June 30, 2015 and the related depreciation on those assets.

Rice Midstream Partners Segment

	Three Months Ended June 30,			Six Months Ended June 30,		
(in thousands, except volumes)	2016	2015	Change	2016	2015	Change
Operating revenues:						
Gathering revenues	$26,249	$18,912	$7,337	$51,934	$34,722	$17,212
Compression revenues	3,787	818	2,969	4,902	1,174	3,728
Water distribution revenues	16,511	8,830	7,681	44,254	19,175	25,079
Total operating revenues	46,547	28,560	17,987	101,090	55,071	46,019
Operating expenses:						
Midstream operation and maintenance	4,141	2,703	1,438	12,752	5,607	7,145
Incentive unit expense	—	689	(689)	—	1,123	(1,123)
General and administrative	5,787	4,202	1,585	10,463	8,396	2,067
Depreciation, depletion and amortization	6,855	2,953	3,902	12,225	6,038	6,187
Acquisition expense	—	—	—	73	—	73
Amortization of intangible assets	403	408	(5)	811	816	(5)
Other expense	361	839	(478)	149	839	(690)
Total operating expenses	17,547	11,794	5,753	36,473	22,819	13,654
Operating income	$29,000	$16,766	$12,234	$64,617	$32,252	$32,365
Operating volumes:						
Gathering volumes (MDth/d):	934	655	279	885	607	278
Compression volumes (MDth/d):	564	58	506	358	61	297
Water distribution volumes (MMgal):	335	163	172	797	348	449

Three Months Ended June 30, 2016 Compared to Three Months Ended June 30, 2015

Total operating revenues. The $18.0 million increase in total operating revenues was mainly the result of an increase in gathering and compression revenues associated with our existing third-party contracts. Additionally, the increase is the result of affiliate volumes related to the water service contracts between the Exploration and Production segment and the Rice Midstream Partners segment, as well as revenues associated with third-party water service contracts that were not in place in the second quarter of 2015.

Midstream operation and maintenance. Midstream operation and maintenance expense for the second quarter of 2016 includes $2.8 million of expense relative to our fresh water distribution assets and $1.3 million of expense relative to our gathering assets. The $1.4 million increase in expense period-over-period was primarily due to an increase in on and off pad water transfer costs and water procurement, in addition to increased contract labor expenses.

General and administrative. The $1.6 million increase in general and administrative expense period-over-period was primarily attributable to costs associated with personnel to support the Rice Midstream Partners segment's growth activities. Included in general and administrative expense is stock compensation expense of $1.2 million and $1.1 million for the second quarter of 2016 and 2015, respectively.

45

DD&A. The $3.9 million increase in depreciation, depletion and amortization expense period-over-period was mainly the result of an increase in midstream assets being in service in the second quarter of 2016 as compared to the second quarter of 2015 and the related depreciation on those assets.

Six Months Ended June 30, 2016 Compared to Six Months Ended June 30, 2015

Total operating revenues. The $46.0 million increase in total operating revenues period-over-period was mainly the result of an increase in affiliate volumes related to the water service contracts between the Exploration and Production segment and the Rice Midstream Partners segment, an increase in revenues related to existing third-party gathering and compression volumes and additional affiliate revenues related to the gathering and compression contracts between the Exploration and Production segment and the Rice Midstream Partners segment.

Midstream operation and maintenance. Midstream operation and maintenance expense for the second quarter of 2016 includes $9.6 million of expense relative to our fresh water distribution assets and $3.2 million of expense relative to our gathering and compression assets. The $7.1 million increase in expense period-over-period was primarily due to an increase in on and off pad water transfer costs and water procurement, in addition to increased contract labor expenses.

General and administrative. The $2.1 million increase in general and administrative expense period-over-period was primarily attributable to costs associated with personnel to support the Rice Midstream Partners segment's growth activities. Included in general and administrative expense is stock compensation expense of $2.1 million and $2.2 million for the six months ended June 30, 2016 and 2015, respectively.

DD&A. The $6.2 million increase in depreciation, depletion and amortization expense period-over-period was mainly the result of an increase in midstream assets being in service in the six months ended June 30, 2016 as compared to the six months ended June 30, 2015 and the related depreciation on those assets.

Capital Resources and Liquidity

Our primary sources of liquidity have been the proceeds from equity and debt financings and borrowings under our credit facilities. Our primary use of capital has been the acquisition and development of natural gas properties and associated midstream infrastructure. As we pursue reserve and production growth, we monitor which capital resources, including equity and debt financings, are available to us to meet our future financial obligations, planned capital expenditure activities and liquidity requirements. We also expect to fund a portion of these requirements with cash flow from operations as we continue to bring additional upstream and midstream production online.

Our and RMP's credit ratings are subject to revision or withdrawal at any time. We and RMP cannot ensure that a rating will remain in effect for or will not be lowered for any given period of time. If our credit ratings are downgraded, we and RMP may be required to provide additional credit assurances in support of certain commercial agreements, such as pipeline capacity and construction contracts, the amount of which may be significant, and the potential pool of investors and funding sources may decrease.

Cash Flow Provided by Operating Activities

Net cash provided by operating activities was $202.9 million for the six months ended June 30, 2016, compared to $104.9 million for the six months ended June 30, 2015. The increase in operating cash flow was primarily due to an increase in cash receipts on settled derivatives and production, partially offset by an increase in cash operating expenses and interest expense.

Cash Flow Used in Investing Activities

During the six months ended June 30, 2016, cash flows used in investing activities of $492.3 million primarily consisted of $484.5 million for capital expenditures for property and equipment, as compared to the $612.6 million of cash flows used in investing activities for the six months ended June 30, 2015 with $622.8 million related to capital expenditures for property and equipment.

Capital expenditures for the Exploration and Production segment were $386.3 million and $452.6 million for the six months ended June 30, 2016 and 2015, respectively. The decrease of $66.3 million was primarily attributable to a decrease in the acquisition and development of our natural gas properties.

Capital expenditures for the Rice Midstream Holdings segment totaled $54.3 million and $74.1 million for the six months ended June 30, 2016 and 2015, respectively. The decrease of $19.9 million was attributable to a decrease in capital expenditures for Rice Olympus Midstream LLC's ("Rice Olympus") midstream infrastructure, offset by an increase in capital expenditures for Strike Force Midstream LLC’s midstream infrastructure.

Capital expenditures for the Rice Midstream Partners segment totaled $75.0 million and $109.8 million for the six months ended June 30, 2016 and 2015, respectively. The decrease of $34.8 million was attributable to a decrease in the capital expenditures related to the Rice Midstream Partners segment's water services assets, offset by increases in capital expenditures for compression assets.

Cash Flow Provided by Financing Activities

Net cash provided by financing activities of $703.0 million during the six months ended June 30, 2016 was primarily the result of the proceeds from the Midstream Holdings Investment (defined below), proceeds from the April 2016 equity offering, proceeds from the Partnership's June 2016 equity offering and proceeds from the Partnership's ATM program, offset by net repayments on our revolving credit facilities, and distributions to the Partnership's public unitholders. Net cash provided by financing activities of $508.2 million during the six months ended June 30, 2015 was primarily the result of proceeds from our 2023 Notes offering (discussed below).

Debt Agreements

Senior Notes

On April 25, 2014, we issued $900.0 million in aggregate principal amount of 6.25% senior notes due 2022 (the "2022 Notes") in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act, which resulted in net proceeds to us of $882.7 million after deducting estimated expenses and underwriting discounts and commissions of approximately $17.3 million.

The 2022 Notes will mature on May 1, 2022, and interest is payable on the 2022 Notes on each May 1 and November 1. At any time prior to May 1, 2017, we may redeem up to 35% of the 2022 Notes at a redemption price of 106.25% of the principal amount, plus accrued and unpaid interest to the redemption date, with the proceeds of certain equity offerings so long as the redemption occurs within 180 days of completing such equity offering and at least 65% of the aggregate principal amount of the 2022 Notes remains outstanding after such redemption. Prior to May 1, 2017, we may redeem some or all of the 2022 Notes for cash at a redemption price equal to 100% of their principal amount plus an applicable make-whole premium and accrued and unpaid interest to the redemption date. Upon the occurrence of a Change of Control (as defined in the indenture governing the 2022 Notes), unless we have given notice to redeem the 2022 Notes, the holders of the 2022 Notes will have the right to require us to repurchase all or a portion of the 2022 Notes at a price equal to 101% of the aggregate principal amount of the 2022 Notes, plus any accrued and unpaid interest to the date of purchase. On and after May 1, 2017, we may redeem some or all of the 2022 Notes at redemption prices (expressed as percentages of principal amount) equal to 104.688% for the twelve-month period beginning on May 1, 2017, 103.125% for the twelve-month period beginning May 1, 2018, 101.563% for the twelve-month period beginning on May 1, 2019 and 100.000% beginning on May 1, 2020, plus accrued and unpaid interest to the redemption date.

On March 26, 2015, we issued $400.0 million in aggregate principal amount of 7.25% senior notes due 2023 (the "2023 Notes") in a private placement to eligible purchasers under Rule 144A and Regulation S of the Securities Act, which resulted in net proceeds to us of $389.3 million after deducting estimated expenses and underwriting discounts and commissions of approximately $10.7 million. We used the net proceeds for general corporate purposes, including capital expenditures. The original issuance discount of $3.1 million related to the 2023 Notes is recorded as a reduction of the principal amount.

The 2023 Notes will mature on May 1, 2023, and interest is payable on the 2023 Notes on each May 1 and November 1. At any time prior to May 1, 2018, we may redeem up to 35% of the 2023 Notes at a redemption price of 107.250% of the principal amount, plus accrued and unpaid interest to the redemption date, with the proceeds of certain equity offerings so long as the redemption occurs within 180 days of completing such equity offering and at least 65% of the aggregate principal amount of the 2023 Notes remains outstanding after such redemption. Prior to May 1, 2018, we may redeem some or all of the notes for cash at a redemption price equal to 100% of their principal amount plus an applicable make-whole premium and accrued and unpaid interest to the redemption date. Upon the occurrence of a Change of Control (as defined in the indenture governing the 2023 Notes), unless we have given notice to redeem the 2023 Notes, the holders of the 2023 Notes will have the right to require us to repurchase all or a portion of the 2023 Notes at a price equal to 101% of the aggregate principal amount of the 2023 Notes, plus any accrued and unpaid interest to the date of purchase. On or after May 1, 2018, we may redeem some or all of the 2023 Notes at redemption prices (expressed as percentages of principal amount) equal to 105.438% for the twelve-month period beginning on May 1, 2018, 103.625% for the twelve-month period beginning May 1, 2019, 101.813% for the twelve-month period beginning on May 1, 2020 and 100.000% beginning on May 1, 2021, plus accrued and unpaid interest to the redemption date.

In connection with the issuance and sale of the 2023 Notes, the Company and the Company's restricted subsidiaries entered into a registration rights agreement with the initial purchasers, dated March 26, 2015. Pursuant to the registration rights agreement, the Company completed an exchange of the 2023 Notes for registered notes that have substantially identical terms as

the 2023 Notes.
The indentures governing the 2022 Notes and the 2023 Notes (collectively, the “Notes”) restrict our ability and the ability of certain of our subsidiaries to: (i) incur or guarantee additional debt or issue certain types of preferred stock; (ii) pay dividends on capital stock or redeem, repurchase or retire our capital stock or subordinated debt; (iii) make certain investments; (iv) incur liens; (v) enter into transactions with affiliates; (vi) merge or consolidate with another company; (vii) transfer and sell assets; and (viii) create unrestricted subsidiaries. These covenants are subject to a number of important exceptions and qualifications. If at any time when the Notes are rated investment grade by both Moody’s Investors Service, Inc. and Standard & Poor’s Ratings Services and no default (as defined in the indentures governing the Notes) has occurred and is continuing, many of such covenants will terminate and we and our subsidiaries will cease to be subject to such covenants.
Senior Secured Revolving Credit Facility
In April 2013, we entered into a Senior Secured Revolving Credit Facility (the “Senior Secured Revolving Credit Facility”). In April 2014, we, as borrower, and Rice Drilling B LLC (“Rice Drilling B”), as predecessor borrower, amended and restated the credit agreement governing the Senior Secured Revolving Credit Facility (the “Amended Credit Agreement”) to, among other things, assign all of Rice Drilling B’s rights and obligations under the Senior Secured Revolving Credit Facility to us, and we assumed all such rights and obligations as borrower under the Amended Credit Agreement.
On May 16, 2016, following a semi-annual redetermination of the Senior Secured Revolving Credit Facility’s borrowing base, we entered into an amendment to the Senior Secured Revolving Credit Facility to increase the borrowing base from $750.0 million to 875.0 million (the “Eighth Amendment”). The Eighth Amendment also established aggregate elected commitment amounts, which were $750.0 million as of the Eighth Amendment effective date.
As of June 30, 2016, the borrowing base under the Amended Credit Agreement governing the Senior Secured Revolving Credit Facility was $875.0 million (with a $750.0 million lender commitment amount) and the sublimit for letters of credit was $250.0 million. The Company had zero borrowings outstanding and $214.4 million in letters of credit outstanding under its Amended Credit Agreement as of June 30, 2016, resulting in availability of $535.6 million. The next redetermination of the borrowing base is expected to occur in October 2016. The maturity date of the Senior Secured Revolving Credit Facility is January 29, 2019.
Eurodollar loans under the Senior Secured Revolving Credit Facility bear interest at a rate per annum equal to LIBOR plus an applicable margin ranging from 150 to 250 basis points, depending on the percentage of borrowing base utilized. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank’s reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 50 to 150 basis points, depending on the percentage of borrowing base utilized.
The Amended Credit Agreement is secured by liens on at least 80% of the proved oil and gas reserves of us and our subsidiaries (other than any subsidiary that is designated as an unrestricted subsidiary including Midstream Holdings and its subsidiaries), as well as significant unproved acreage and substantially all of the personal property of us and such restricted subsidiaries, and the Amended Credit Agreement is guaranteed by such restricted subsidiaries.
The Amended Credit Agreement also contains certain financial covenants and customary events of default. If an event of default occurs and is continuing, the lenders may declare all amounts outstanding under the Amended Credit Agreement to be immediately due and payable. We were in compliance with such covenants and ratios as of June 30, 2016.
Midstream Holdings Revolving Credit Facility
On December 22, 2014, Midstream Holdings entered into a revolving credit facility (“Midstream Holdings Revolving Credit Facility”) with Wells Fargo Bank, N.A., as administrative agent, and a syndicate of lenders with a maximum credit amount of $300.0 million and a sublimit for letters of credit of $25.0 million.
As of June 30, 2016, Midstream Holdings had $25.0 million borrowings outstanding and no letters of credit under this facility. The average daily outstanding balance of the credit facility was approximately $20.8 million, and interest was incurred on the facility at a weighted average interest rate of 2.8% through June 30, 2016. The Midstream Holdings

Revolving Credit Facility is available to fund working capital requirements and capital expenditures and to purchase assets and matures on December 22, 2019.

Principal amounts borrowed are payable on the maturity date, and interest is payable quarterly for base rate loans and at the end of the applicable interest period for Eurodollar loans. Under the Midstream Holdings Revolving Credit Facility, Midstream Holdings may elect to borrow in Eurodollars or at the base rate. Eurodollar loans bear interest at a rate per annum equal to the applicable LIBOR Rate plus an applicable margin ranging from 225 to 300 basis points, depending on the leverage ratio then in effect. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank's reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 125 to 200 basis points, depending on the leverage ratio then in effect. Midstream Holdings also pays a commitment fee based on the undrawn commitment amount ranging from 37.5 to 50 basis points.

The Midstream Holdings Revolving Credit Facility is secured by mortgages and other security interests on substantially all of the properties of, and guarantees from, Midstream Holdings and its restricted subsidiaries (which do not include RMP or Rice Midstream Management LLC, a Delaware limited liability company and general partner of RMP, or Rice Energy and its subsidiaries other than Midstream Holdings).

The Midstream Holdings Revolving Credit Facility also contains certain financial covenants and customary events of default. If an event of default occurs and is continuing, the lenders may declare all amounts outstanding under the Midstream Holdings Revolving Credit Facility to be immediately due and payable. Midstream Holdings was in compliance with such covenants and ratios as of June 30, 2016.

RMP Revolving Credit Facility

On December 22, 2014, Rice Midstream OpCo LLC ("Rice Midstream OpCo") entered into a revolving credit facility (the "RMP Revolving Credit Facility") with RMP, Wells Fargo Bank, N.A., as administrative agent, and a syndicate of lenders with a maximum credit amount of $450.0 million with an additional $200.0 million of commitments available under an accordion feature subject to lender approval. The RMP Revolving Credit Facility provides for a letter of credit sublimit of $50.0 million. As of June 30, 2016, Rice Midstream OpCo had no borrowings outstanding and no letters of credit under this facility. The average daily outstanding balance of the credit facility was approximately $144.7 million and interest was incurred on the facility at a weighted average interest rate of 2.2% through June 30, 2016. The RMP Revolving Credit Facility is available to fund working capital requirements and capital expenditures, to purchase assets, to pay distributions and repurchase units and for general partnership purposes. The RMP Revolving Credit Facility matures on December 22, 2019.

Principal amounts borrowed are payable on the maturity date, and interest is payable quarterly for base rate loans and at the end of the applicable interest period for Eurodollar loans. Under the RMP Revolving Credit Facility, Rice Midstream OpCo may elect to borrow in Eurodollars or at the base rate. Eurodollar loans bear interest at a rate per annum equal to the applicable LIBOR Rate plus an applicable margin ranging from 175 to 275 basis points, depending on the leverage ratio then in effect. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank's reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 75 to 175 basis points, depending on the leverage ratio then in effect. Rice Midstream OpCo also pays a commitment fee based on the undrawn commitment amount ranging from 35 to 50 basis points.

The RMP Revolving Credit Facility is secured by mortgages and other security interests on substantially all of RMP's properties and guarantees from RMP and its restricted subsidiaries.

The RMP Revolving Credit Facility also contains certain financial covenants and customary events of default. If an event of default occurs and is continuing, the lenders may declare all amounts outstanding under the RMP Revolving Credit Facility to be immediately due and payable. RMP was in compliance with its covenants and ratios as of June 30, 2016.

Midstream Holdings Investment

On February 22, 2016, we completed a $375.0 million equity investment by EIG Global Energy Partners ("EIG"), on behalf of EIG managed funds, into Midstream Holdings, our wholly-owned subsidiary prior to the investment, in exchange for $375.0 million of Series B Units ("Series B Units") in Midstream Holdings and common units representing an 8.25% limited partner interest in GP Holdings, a subsidiary of Midstream Holdings that holds all of the common units, subordinated units and incentive distribution rights in RMP previously held by Midstream Holdings (the "Midstream Holdings Investment"). The Series B Units have an 8.0% preferential distribution rate; however, Midstream Holdings has an option to pay distributions in kind for the first two years. Midstream Holdings used approximately $75.0 million of the proceeds to repay borrowings under its revolving credit facility and to pay transaction fees and expenses, and the remaining $300.0 million was distributed to us to fund a portion of our 2016 development program in the cores of the Marcellus and Utica Shales. In addition, Midstream Holdings may require EIG to make an additional $125.0 million commitment (subject to designated drawing conditions precedent) for a period of 18 months.

April 2016 Equity Offering

On April 15, 2016, we completed a public offering of 29,858,891 shares of common stock at $16.35 per share, which included 20,000,000 shares sold by the Company and 9,858,891 shares sold by NGP Holdings. On April 21, 2016, NGP Holdings sold an additional 4,478,834 shares of common stock pursuant to the exercise of the underwriter's option to purchase additional shares. After deducting underwriting discounts and commissions of $15.0 million and transaction costs, we received net proceeds of $311.8 million. We received no proceeds from the sale of shares by NGP Holdings. The previously contemplated acquisition of the Marcellus and Utica assets in central Greene County, Pennsylvania from a subsidiary of Alpha Natural Resources, Inc. for $200.0 million, which was to be funded by the proceeds, was not consummated and, as a result, we intend to use the net proceeds for general corporate purposes, which may include funding a portion of our 2017 capital budget.

Commodity Hedging Activities

Our primary market risk exposure is in the prices we receive for our natural gas production. Realized pricing is primarily driven by the spot regional market prices applicable to our U.S. natural gas production. Pricing for natural gas production has been volatile and unpredictable for several years, and we expect this volatility to continue in the future. The prices we receive for production depend on many factors outside of our control, including volatility in the differences between product prices at sales points and the applicable index price.

To mitigate the potential negative impact on our cash flow caused by changes in oil and natural gas prices, we have entered into financial commodity derivative contracts in the form of swaps, zero cost collars, calls, puts and basis swaps to ensure that we receive minimum prices for a portion of our future oil and natural gas production when management believes that favorable future prices can be secured. We typically hedge the NYMEX Henry Hub price for natural gas. Pursuant to our Amended Credit Agreement, we are now permitted to hedge the greater of (i) the percentage of proved reserve volumes (Column A) or (ii) the percentage of internally forecasted production (Column B).

Months next succeeding the time as of which compliance is measured	Column A	Column B
Months 1 through 18	85 %	90 %
Months 19 through 36	85 %	75 %
Months 37 through 60	85 %	50 %

Our hedging activities are intended to support natural gas prices at targeted levels and to manage our exposure to natural gas price fluctuations. The counterparty is required to make a payment to us for the difference between the floor price specified in the contract and the settlement price, which is based on market prices on the settlement date, if the settlement price is below the floor price. We are required to make a payment to the counterparty for the difference between the ceiling price and the settlement price if the ceiling price is below the settlement price. These contracts may include price swaps whereby we will receive a fixed price for our production and pay a variable market price to the contract counterparty and zero cost collars that set a floor and ceiling price for the hedged production. For a description of our commodity derivative contracts, please see "Item 1. Financial Statements—Notes to Condensed Consolidated Financial Statements—4. Derivative Instruments and 5. Fair Value of Financial Instruments" included elsewhere in this Quarterly Report.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The application of our critical accounting policies may require management to make judgments and estimates about the amounts reflected in the condensed consolidated financial statements. Management uses historical experience and all available information to make these estimates and judgments. Different amounts could be reported using different assumptions and estimates. Our critical accounting policies are described in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates" in our 2015 Annual Report in addition to the discussion included herein. Any new accounting policies or updates to existing accounting policies as a result of new accounting pronouncements have been included in the notes to our condensed consolidated financial statements contained in this Quarterly Report.

On a quarterly basis in accordance with ASC 360, we perform a qualitative assessment of whether events or changes in circumstances exist that could be indicators that the carrying amount of proved properties may not be recoverable. Because estimated undiscounted future cash flows have exceeded the associated carrying values of proved properties at the end of each quarter, pursuant to generally accepted accounting principles for successful efforts accounting, it has not been necessary for us to estimate the fair value of the properties, nor have any impairment losses been realized during the three month period ended June 30, 2016. Current future commodity prices continue to support the recoverability of our proved properties; however, we are unable to predict commodity prices with any greater precision than the futures market. Further reductions in commodity prices within the futures market could trigger an impairment of proved natural gas properties in the future.

Off-Balance Sheet Arrangements

Currently, we do not have any off-balance sheet arrangements as defined by the SEC. In the ordinary course of business, we enter into various commitment agreements and other contractual obligations, some of which are not recognized in our consolidated financial statements in accordance with GAAP. See “Item 1. Financial Statements—7. Commitments and Contingencies” for a description of our commitments and contingencies.

50

Item 3. Quantitative and Qualitative Disclosures about Market Risk
The primary objective of the following information is to provide forward-looking quantitative and qualitative information about our potential exposure to market risk. The term “market risk” refers to the risk of loss arising from adverse changes in oil and natural gas prices and interest rates. The disclosures are not meant to be precise indicators of expected future losses, but rather indicators of reasonably possible losses. This forward-looking information provides indicators of how we view and manage our ongoing market risk exposures. All of our market risk sensitive instruments were entered into for hedging purposes, rather than for speculative trading.
Commodity price risk and hedges
Our primary market risk exposure is in the price we receive for our natural gas production. Realized pricing is primarily driven by market prices applicable to our U.S. natural gas production. Pricing for natural gas production has been volatile and unpredictable for several years, and we expect this volatility to continue in the future. The prices we receive for production depend on many factors outside of our control, including volatility in the differences between product prices at sales points and the applicable index price.
To mitigate some of the potential negative impact on our cash flow caused by changes in commodity prices, we enter into financial commodity swap contracts to receive fixed prices for a portion of our natural gas production to mitigate the potential negative impact on our cash flow.
Our financial hedging activities are intended to support natural gas prices at targeted levels and to manage our exposure to natural gas price fluctuations. The counterparty is required to make a payment to us for the difference between the fixed price and the settlement price if the settlement price is below the fixed price. We are required to make a payment to the counterparty for the difference between the fixed price and the settlement price if the fixed price is below the settlement price. These contracts may include financial price swaps whereby we will receive a fixed price for our production and pay a variable market price to the contract counterparty, cashless price collars that set a floor and ceiling price for the hedged production, or basis differential swaps. If the applicable monthly price indices are outside of the ranges set by the floor and ceiling prices in the various collars, we and the counterparty to the collars would be required to settle the difference.
As of June 30, 2016, we have entered into derivative instruments with various financial institutions, fixing the price we receive for a portion of our natural gas through December 31, 2020. Our commodity hedge position as of June 30, 2016 is summarized in Note 5 to our condensed consolidated financial statements included elsewhere in the Quarterly Report. Our financial hedging activities are intended to support natural gas prices at targeted levels and to manage our exposure to price fluctuations.
By removing price volatility from a portion of our expected natural gas production through December 31, 2020, we have mitigated, but not eliminated, the potential effects of changing prices on our operating cash flow for those periods. While mitigating negative effects of falling commodity prices, these derivative contracts also limit the benefits we would receive from increases in commodity prices above the hedge prices.
Interest rate risks
Our primary interest rate risk exposure results from our credit facilities.
As of June 30, 2016, we had zero borrowings and approximately $214.4 million in letters of credit outstanding under our Senior Secured Revolving Credit Facility. As of June 30, 2016, we had availability under the borrowing base of our Senior Secured Revolving Credit Facility of approximately $535.6 million and the borrowing base was $875.0 million (with a $750.0 million lender commitment amount). We have a choice of borrowing in Eurodollars or at the base rate. Eurodollar loans bear interest at a rate per annum equal to LIBOR plus an applicable margin ranging from 150 to 250 basis points, depending on the percentage of our borrowing base utilized. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank’s reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 50 to 150 basis points, depending on the percentage of our borrowing base utilized.
As of June 30, 2016, Midstream Holdings had $25.0 million of borrowings and no letters of credit outstanding under the Midstream Holdings Revolving Credit Facility. Under the revolving credit facility, Midstream Holdings may elect to borrow in Eurodollars or at the base rate. Eurodollar loans bear interest at a rate per annum equal to the applicable LIBOR Rate plus an applicable margin ranging from 225 to 300 basis points, depending on the leverage ratio then in

effect. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank's reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 125 to 200 basis points, depending on the leverage ratio then in effect.

51

The average annual interest rate incurred on the Midstream Holdings Revolving Credit Facility during the six months ended June 30, 2016 was approximately 2.8%. A 1.0% increase in the applicable average interest rates for the six months ended June 30, 2016 would have resulted in an estimated $0.1 million increase in interest expense.

As of June 30, 2016, Rice Midstream OpCo had no borrowings and no letters of credit outstanding under the RMP Revolving Credit Facility. Under the RMP Revolving Credit Facility, Rice Midstream OpCo may elect to borrow in Eurodollars or at the base rate. Eurodollar loans will bear interest at a rate per annum equal to the applicable LIBOR Rate plus an applicable margin ranging from 175 to 275 basis points, depending on the leverage ratio then in effect. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank's reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 75 to 175 basis points, depending on the leverage ratio then in effect.

The average annual interest rate incurred on the RMP Revolving Credit Facility during the six months ended June 30, 2016 was approximately 2.2%. A 1.0% increase in the applicable average interest rates for the six months ended June 30, 2016 would have resulted in a $0.7 million estimated increase in interest expense.

As of June 30, 2016, we did not have any derivatives in place to mitigate the effects of interest rate risk. We may implement an interest rate hedging strategy in the future.

Counterparty and customer credit risk

Our principal exposures to credit risk are through joint interest receivables ($90.6 million in receivables as of June 30, 2016) and the sale of our natural gas production ($72.8 million in receivables as of June 30, 2016), which we market to multiple natural gas marketing companies. Joint interest receivables arise from billing entities who own partial interest in the wells we operate. These entities participate in our wells primarily based on their ownership in leases on which we wish to drill. We have minimal ability to choose who participates in our wells. We are also subject to credit risk with three natural gas marketing companies that hold a significant portion of our natural gas receivables. We do not require our customers to post collateral. The inability or failure of our significant customers to meet their obligations to us or their insolvency or liquidation may adversely affect our financial results.

By using derivative instruments to hedge exposures to changes in commodity prices, we expose ourselves to the credit risk of our counterparties. Credit risk is the potential failure of the counterparty to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty is expected to owe us, which creates credit risk. To minimize the credit risk in derivative instruments, it is our policy to enter into derivative contracts only with counterparties that are creditworthy financial institutions deemed by management as competent and competitive market makers. The creditworthiness of our counterparties is subject to periodic review. We have derivative instruments in place with six different counterparties. As of June 30, 2016, our contracts with Barclays Bank PLC, Bank of Montreal and Wells Fargo Bank N.A. accounted for 36%, 34% and 24% of the net fair market value of our derivative assets, respectively. We believe these counterparties are acceptable credit risks. We are not required to post letters of credit as collateral to Bank of Montreal, Wells Fargo Bank N.A., Citibank N.A. and Barclays Bank PLC under current contracts, nor are they required to provide credit support or collateral to us. As of June 30, 2016 and December 31, 2015, we did not have any past due receivables from counterparties.

52

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of June 30, 2016. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and to ensure that the information we are required to disclose in the reports we file and submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of June 30, 2016.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(t) under the Exchange Act) during our most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

We are party to various legal and/or regulatory proceedings from time to time arising in the ordinary course of business. While the ultimate outcome and impact to us cannot be predicted with certainty, we believe that all such matters are without merit and involve amounts which, if resolved unfavorably, either individually or in the aggregate, will not have a material adverse effect on our financial condition, results of operations or cash flows. When we determine that a loss is probable of occurring and is reasonably estimable, we accrue an undiscounted liability for such contingencies based on our best estimate using information available at the time. We disclose contingencies where an adverse outcome may be material, or in the judgment of management, the matter should otherwise be disclosed.

Environmental Proceedings

From time to time our operations are inspected by governmental authorities. These authorities may issue proposed penalties for alleged violations of environmental laws discovered as a result of such inspections. Fines and penalties for environmental law violations can often exceed $100,000. While we cannot predict the ultimate outcome of any such matters, we do not expect that any currently known violations, individually or in the aggregate, will have a material adverse impact on our financial results.

Item 1A. Risk Factors

Our business faces many risks. Any of the risks discussed elsewhere in this Quarterly Report and our other SEC filings could have a material impact on our business, financial position or results of operations. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also impair our business operations.

There have been no material changes in our risk factors from those described in our 2015 Annual Report and our March 31, 2016 Quarterly Report. For a discussion of our potential risks and uncertainties, see the information in "Item 1A. Risk Factors" in our 2015 Annual Report and our March 31, 2016 Quarterly Report.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds
Unregistered sales of securities. There were no sales of unregistered equity securities during the period covered by this report.
Issuer purchases of equity securities. The following table contains information about our acquisition of equity securities during the three months ended June 30, 2016:

Period	Total Number of Shares Withheld (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Be Purchased Under the Plans or Programs
April 1 - April 30, 2016	462	$ 17.47	—	—
May 1 - May 31, 2016	10,626	$ 18.11	—	—
June 1 - June 30, 2016	10,837	$ 21.94	—	—
Total	21,925	$ 19.99	—	—

(1) All shares withheld during the three months ended June 30, 2016 were used to offset tax withholding obligations that occur upon the vesting of restricted stock units and delivery of common stock under the terms of our long-term incentive plan.

Item 6. Exhibits

Exhibit Number	Exhibit
3.1	Amended and Restated Certificate of Incorporation of Rice Energy Inc. (incorporated by reference to Exhibit 3.1 of the Company’s Current Report on Form 8-K (File No. 001-36273) filed with the Commission on February 4, 2014).
3.2	Amended and Restated Bylaws of Rice Energy Inc. (incorporated by reference to Exhibit 3.2 of the Company’s Current Report on Form 8-K (File No. 001-36273) filed with the Commission on February 4, 2014).
10.1	Eighth Amendment to Third Amended and Restated Credit Agreement, dated as of May 16, 2016, among Rice Energy Inc., as borrower, Wells Fargo Bank N.A., as administrative agent, and the lenders and other parties thereto. (incorporated by reference to Exhibit 10.1 of the Company’s Current Report on Form 8-K (File No. 161656150) filed with the Commission on May 17, 2016).
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.
32.1**	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Schema Document.
101.CAL*	XBRL Calculation Linkbase Document.
101.DEF*	XBRL Definition Linkbase Document.
101.LAB*	XBRL Labels Linkbase Document.
101.PRE*	XBRL Presentation Linkbase Document.

* Filed herewith.
** Filed herewith. Pursuant to SEC Release No. 33-8212, this certification will be treated as “accompanying” this Quarterly Report on Form 10-Q and not “filed” as part of such report for purposes of Section 18 of the Securities

Exchange Act of 1934, as amended ("Exchange Act"), or otherwise subject to the liability of Section 18 of the Exchange Act, and this certification will not be deemed to be incorporated by reference into any filing under the Securities Exchange Act of 1933, as amended, except to the extent that the registrant specifically incorporates it by reference.

SIGNATURES

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

		RICE ENERGY INC.
Date: August 4, 2016	By:	/s/ Daniel J. Rice IV
		Daniel J. Rice IV
		Director, Chief Executive Officer
		(Principal Executive Officer)
Date: August 4, 2016	By:	/s/ Grayson T. Lisenby
		Grayson T. Lisenby
		Senior Vice President and Chief Financial Officer
		(Principal Financial Officer)

56

EXHIBIT INDEX

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* Filed herewith.

** Filed herewith. Pursuant to SEC Release No. 33-8212, this certification will be treated as "accompanying" this Quarterly Report on Form 10-Q and not "filed" as part of such report for purposes of Section 18 of the Securities Exchange Act of 1934, as amended ("Exchange Act"), or otherwise subject to the liability of Section 18 of the Exchange Act, and this certification will not be deemed to be incorporated by reference into any filing under the Securities Exchange Act of 1933, as amended, except to the extent that the registrant specifically incorporates it by reference.

GLOSSARY OF OIL AND NATURAL GAS TERMS

The following are abbreviations and definitions of certain terms used in this document, which are commonly used in the oil and natural gas industry:
“Barrel” or “Bbl.” 42 U.S. gallons measured at 60 degrees Fahrenheit.
“Btu.” One British thermal unit, the quantity of heat required to raise the temperature of a one-pound mass of water by one degree of Fahrenheit.
“Basin.” A large natural depression on the earth’s surface in which sediments generally brought by water accumulate.
“Completion.” The process of treating a drilled well followed by the installation of permanent equipment for the production of natural gas or oil, or in the case of a dry hole, the reporting of abandonment to the appropriate agency.
“DD&A.” Depreciation, depletion, amortization and accretion.
“Dry hole.” A well found to be incapable of producing hydrocarbons in sufficient quantities such that proceeds from the sale of such production exceed production expenses and taxes.
“Formation.” A layer of rock which has distinct characteristics that differs from nearby rock.
“MBbls.” One thousand barrels.
“Mcf.” One thousand cubic feet of natural gas.
“Mcfe.” One thousand cubic feet of natural gas equivalent, determined by using the ratio of six Mcf of natural gas to one Bbl of crude oil, condensate of natural gas liquids.
“MDth/d.” One thousand dekatherms per day.
“MMBbls.” One million barrels.
“MMBtu.” One million Btu.
“MMGal.” One million gallons.
“MMcf.” One million cubic feet of natural gas.
“MMcfe.” One million cubic feet of natural gas equivalent, determined by using the ratio of six Mcf of natural gas to one Bbl of crude oil, condensate of natural gas liquids.
“NGLs.” Natural gas liquids. Hydrocarbons found in natural gas which may be extracted as liquefied petroleum gas and natural gasoline.
“NYMEX.” The New York Mercantile Exchange.
“Net acres.” The percentage of total acres an owner has out of a particular number of acres, or a specified tract. An owner who has 50% interest in 100 acres owns 50 net acres.
“Prospect.” A specific geographic area which, based on supporting geological, geophysical or other data and also preliminary economic analysis using reasonably anticipated prices and costs, is deemed to have potential for the discovery of commercial hydrocarbons.
“Working interest.” The right granted to the lessee of a property to explore for and to produce and own natural gas or other minerals. The working interest owners bear the exploration, development, and operating costs on either a cash, penalty, or carried basis.

58