

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2016

or

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

Commission file number
001-34581

KRATON

KRATON CORPORATION
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
**15710 John F. Kennedy Blvd,
Suite 300
Houston, TX 77032**
(Address of principal executive offices,
including zip code)

20-0411521
(I.R.S. Employer
Identification No.)

281-504-4700
(Registrant's telephone number,
including area code)

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

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
Kraton Corporation Common Stock, par value \$0.01	New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

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

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

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

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

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

Large accelerated filer:	<input checked="" type="checkbox"/>	Accelerated filer:	<input type="checkbox"/>
Non-accelerated filer:	<input type="checkbox"/>	Smaller reporting company:	<input type="checkbox"/>

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

Estimated aggregate market value of the common equity held by nonaffiliates of Kraton Corporation at June 30, 2016: \$847,456,110. Number of shares of Kraton Corporation Common Stock, \$0.01 par value, outstanding at February 21, 2017: 30,970,082.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Kraton Corporations proxy statement for the 2017 Annual Meeting of Shareholders are incorporated by reference in Part III of this Annual Report on Form 10-K.

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Year Ended December 31, 2016**

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Certain statements and information in this Annual Report on Form 10-K under the headings “Business,” “Risk Factors,” “Selected Financial Data,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” “Financial Statements and Supplementary Data” and elsewhere contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. We may also make written or oral forward-looking statements in our reports on Forms 10-Q and 8-K, in press releases and other written materials and in oral statements made by our officers, directors or employees to third parties. Statements that are not historical facts, including statements about our beliefs and expectations, are forward-looking statements. Forward-looking statements are often characterized by the use of words such as “outlook,” “believes,” “estimates,” “expects,” “projects,” “may,” “intends,” “plans,” “anticipates,” “foresees,” “future,” or by discussions of strategy, plans or intentions; anticipated benefits of or performance of our products; beliefs regarding opportunities for new, differentiated applications and other innovations; beliefs regarding strengthening relationships with customers; adequacy of cash flows to fund our working capital requirements; our investment in the joint venture with Formosa Petrochemical Corporation (“FPCC”); our expectations regarding indebtedness to be incurred by our joint venture with FPCC; expected synergies and cost savings associated with the acquisition of Arizona Chemical Holdings Corporation (“Arizona Chemical”); our ability to successfully integrate Arizona Chemical; debt payments, interest payments, benefit plan contributions, and income tax obligations; our anticipated capital expenditures, health, safety, environmental, and security and infrastructure and maintenance projects, projects to optimize the production capabilities of our manufacturing assets and to support our innovation platform; our ability to fully access our senior secured credit facilities; expectations regarding future dividend payments; expectations regarding our counterparties’ ability to perform, including with respect to trade receivables; estimates regarding tax expense of repatriating certain cash and short-term investments related to foreign operations; expectations regarding differentiated applications; our ability to realize certain deferred tax assets and our beliefs with respect to tax positions; expectations regarding our full year effective tax rate; estimates related to the useful lives of certain assets for tax purposes; expectations regarding our pension contributions; estimates or expectations related to raw material costs or availability, ending inventory levels and related estimated charges; the outcome and financial impact of legal proceedings; expectations regarding the spread between FIFO and ECRC (each as defined herein) in future periods; the estimates and matters described under the caption “*Item 7. Management’s Discussion and Analysis—Results of Operations—Outlook*,” and projections regarding environmental costs and capital expenditures and related operational savings. Such forward-looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or our achievements, or industry results, to differ materially from historical results, any future results, or performance or achievements expressed or implied by such forward-looking statements. There are a number of risks and uncertainties that could cause our actual results to differ materially from the forward-looking statements contained in this report. Important factors that could cause our actual results to differ materially from those expressed as forward-looking statements are set forth in this report, including but not limited to those under the heading “Risk Factors.” There may be other factors of which we are currently unaware or deem immaterial that may cause our actual results to differ materially from the forward-looking statements.

Forward-looking statements are based on current plans, estimates and projections, and, therefore, you should not place undue reliance on them. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update them in light of new information or future events.

PART I

Item 1. Business.

THE COMPANY

General

We are a leading global specialty chemicals company that manufactures styrenic block copolymers (“SBCs”) and other engineered polymers. Effective with our January 6, 2016 acquisition of Arizona Chemical (the “Arizona Chemical Acquisition”), we are now also a leading global producer of value-added specialty products primarily derived from pine wood pulping co-products. Commensurate with the Arizona Chemical Acquisition, Arizona Chemical became a separate operating segment, our Chemical segment, and since such date our operations have been managed through two operating segments: (i) Polymer segment and (ii) Chemical segment. Operating results for Arizona Chemical are included in the accompanying consolidated financial statements since the date of acquisition.

Presentation of Financial Statements.

References in this report to “Kraton,” “our company,” “we,” “our,” “ours,” and “us” as used in this report refer collectively to Kraton Corporation, formerly known as Kraton Performance Polymers, Inc., and its consolidated subsidiaries, unless the context otherwise requires.

This Form 10-K includes financial statements and related notes that present the consolidated financial position, results of operations, comprehensive income, and cash flows of Kraton. Kraton Corporation is a holding company whose only material asset is its investment in its wholly owned subsidiary, Kraton Polymers LLC. Kraton Polymers LLC and its subsidiaries own all of our consolidated operating assets.

Strategy

Over the past several years, we have implemented, and continue to implement, a range of strategic initiatives designed to improve our overall cost structure. Our strategic initiatives are intended to:

- enhance our profitability and market position, with a focus on increasing our scale and optimizing our manufacturing footprint;
- increase our overall margins and return on invested capital; and
- advance our portfolio of differentiated products, while, at the same time, expanding sales of our core product grades.

Our strategic initiatives in our Polymer segment include:

- manufacturing optimization, including through our expansion of unhydrogenated styrenic block copolymers (“USBC”) capacity at our Berre, France, facility and leveraging the hydrogenated styrenic block copolymers (“HSBC”) capacity recently constructed in Mailiao, Taiwan, by our Kraton Formosa Polymers Corporation (“KFPC”) joint venture to optimize our global HSBC capabilities;
- efficiency and asset productivity initiatives, including the installation of natural gas boilers that replaced the coal-burning boilers at our Belpre, Ohio, facility;
- complexity reduction, including the integration of our Cariflex™ manufacturing capabilities; and
- reductions in selling, administrative, and research costs.

We realized approximately \$12.0 million of incremental cost savings related to these initiatives during 2016 and since inception of these plans in 2015 we realized approximately \$31.3 million and we continue to target total savings of \$70 million from these initiatives by the end of 2018. In conjunction with the acquisition of Arizona Chemical, we identified \$65 million of cost-based synergies, approximately \$25 million of which relate to general and administrative costs, and approximately \$40 million of which are associated with operation cost improvements. During 2016, we realized \$17.7 million of general and administrative savings, and \$19.2 million related to operational improvements, resulting in total transaction synergies during the year of \$36.9 million. We continue to target total transaction synergies of \$65 million by the end of 2018.

Corporate History

Kraton Corporation was incorporated in 2009 under Delaware law and is the successor to a Delaware limited liability company, formed in 2003. In December 2009, we completed our initial public offering and trading in our common stock commenced on the New York Stock Exchange. On January 6, 2016, we completed the Arizona Chemical Acquisition. We conduct our business through Kraton Polymers LLC and its consolidated subsidiaries.

POLYMER SEGMENT PRODUCTS AND COMMERCIAL APPLICATIONS

SBCs are highly-engineered synthetic elastomers, which we invented and commercialized over 50 years ago. We developed the first USBC in 1964 and the first HSBC in the late 1960s. Our SBCs enhance the performance of numerous products by imparting greater flexibility, resilience, strength, durability, and processability, and are used in a wide range of applications, including adhesives, coatings, consumer and personal care products, sealants, lubricants, medical, packaging, automotive, paving, roofing, and footwear products. We also sell isoprene rubber (“IR”) and isoprene rubber latex (“IRL”), which are non-SBC products primarily used in applications such as medical products, personal care, adhesives, tackifiers, paints, and coatings.

Our polymer products are high performance elastomers that are engineered for a wide range of applications. Our products possess a combination of high strength and low viscosity, which facilitates ease of processing at elevated temperatures and high processing speeds. Our products can be processed in a variety of manufacturing applications, including injection molding, blow molding, compression molding, extrusion and hot melt, and solution applied coatings.

The majority of worldwide SBC production is dedicated to USBCs, which are primarily used in paving, roofing, adhesives, sealants, coatings, and footwear applications. HSBCs, which are significantly more complex and capital-intensive to manufacture than USBCs, are used in applications such as soft touch and flexible materials, personal hygiene products, medical products, automotive components, and certain adhesive and sealant applications. IR and IRL are primarily used in surgical gloves and condoms.

We have a portfolio of innovations at various stages of development and commercialization, including:

- polyvinyl chloride alternatives for medical applications;
- polymers for soft skin and coated fabric applications for transportation and consumer markets;
- high melt flow polymers for compounding and adhesives formulations; and
- synthetic cement formulations and polymers used for viscosity modification in oilfield applications.

Our Polymer segment products are manufactured and our commercial activities are organized in the following product groups based upon polymer chemistry and process technologies:

<u>Product Groups</u>	Revenue Mix					
	Years Ended December 31,					
	2016		2015		2014	
	(\$ In millions)					
Performance Products	\$ 513.1	50.1%	\$ 540.6	52.3%	\$ 678.9	55.2%
Specialty Polymers	\$ 340.3	33.2%	\$ 350.7	33.9%	\$ 412.4	33.5%
Cariflex	\$ 171.0	16.7%	\$ 142.9	13.8%	\$ 138.6	11.3%
Other	\$ 0.3	—%	\$ 0.4	—%	\$ 0.5	—%

Performance Products. For the years ended December 31, 2016, 2015, and 2014, our Performance Products, which are USBC products, generated revenue into the following product applications:

<u>Application:</u>	Performance Products Revenue Mix		
	Years Ended December 31,		
	2016	2015	2014
Paving	30%	27%	26%
Personal care	21%	20%	20%
Roofing	19%	18%	18%
Packaging and industrial adhesives	13%	18%	19%
Industrial	7%	7%	7%
Other	10%	10%	10%

Our Performance Products impart characteristics such as:

- resistance to temperature and weather extremes in roads and roofing;
- resistance to cracking, reduced road noise, and better water dispersion; and
- increased processing flexibility in adhesive formulations for packaging tapes and labels, and materials used in disposable diapers.

In paving and roofing applications, our Performance Products primarily consist of styrene-butadiene-styrene (“SBS”) for use in modified asphalt applications, which in roofing applications produces stronger and more durable felts and shingles, and in paving applications enhances the strength and elasticity of asphalt-based paving compositions over an extended temperature range. In paving applications, we believe our HiMA technology polymers will extend road life by allowing pavements to withstand heavy traffic loads and varying climate conditions. Our products primarily compete with chemicals such as styrene-butadiene rubber latex, acetates, polyphosphoric acids and thermoplastic materials like ethylene-propylene-diene-monomer, polyethylene, atactic polypropylene and unmodified asphalts. We believe that customer choice for these markets is driven principally by total end-product cost, temperature performance, bitumen source and application.

In personal care applications, our Performance Products primarily consist of SBS and styrene-isoprene-styrene (“SIS”) for the manufacturing of ultra-thin stretchable films used for the production of diapers. In addition, our SIS polymers are also used in the lamination process for other personal care products. Our products primarily compete against low priced alternatives such as metallocenes. We believe that customer choice for these markets is driven principally by total end-product cost and performance.

In adhesives applications, our Performance Products primarily compete with ethylene-vinyl acetate, polyolefins, and metallocene polyolefins. The choice between these materials is influenced by bond strength, specific adhesion, consistent performance to specification, processing speed, hot-melt application, resistance to water and cost. Our SBCs are compatible with many other formulating ingredients. We believe demand for utilization of SBC-based adhesives is primarily driven by cost reduction and higher performance.

Specialty Polymers. Our Specialty Polymers are comprised of HSBC products that are significantly more complex to produce than our Performance Products. As a result, our Specialty Polymers generally generate higher margins than our Performance Products. For the years ended December 31, 2016, 2015, and 2014, our Specialty Polymers revenue included sales into the following product applications:

Application:	Specialty Polymers Revenue Mix		
	Years Ended December 31,		
	2016	2015	2014
Polymer modification	12%	13%	13%
Lubricant additives	11%	14%	20%
Medical	11%	10%	8%
Industrial	10%	7%	5%
Personal care	9%	10%	12%
Adhesives and coatings	6%	7%	7%
Cable gels	6%	7%	9%
Consumer	6%	5%	4%
Other	29%	27%	22%

Our Specialty Polymers impart characteristics such as:

- improved flow characteristics for many industrial and consumer sealant and lubricating fluids;
- soft feel in numerous consumer products such as razor blades, power tools, and automobile components;
- impact resistance for demanding engineered plastic applications;
- flexibility for wire and cable plastic outer layers;
- stretch properties in disposable diapers and adult incontinence products;
- resistance to ultraviolet light;
- processing stability and viscosity; and
- elevated temperature resistance.

Our products primarily compete against a variety of chemical and non-chemical alternatives including, but not limited to, thermoplastic vulcanizate, thermoplastic polyurethane, PVC, thermoplastic polyolefin, polyethylene terephthalate, polycarbonate, polyamide and ethylene-propylene-diene-monomer based products. We believe demand for our Specialty Polymers portfolio is principally driven by customer-specific needs and by the ability to balance performance characteristics such as soft-touch, durability, stretch and impact.

Because many of our products are highly engineered and customized formulations, they require specialized product testing and validation, production and process evaluation. This results in potentially long lead times to achieve customer and industry established approvals. Our innovation-led growth strategy focuses on translating the inherent strengths of our product technologies such as flexibility, resilience, impact and moisture resistance, and aesthetics (clarity and haptics) to target opportunities in which we can expand and/or have the potential to create new market spaces for our solutions.

Cariflex™. We market our IR and IRL products under the Cariflex brand name. These products combine the key qualities of natural rubber, such as good mechanical properties and hysteresis, with purity and clarity enhancements, good flow, low gel content, and absence of nitrosamines and natural rubber proteins. For the years ended December 31, 2016, 2015, and 2014, our Cariflex revenue included sales into the following product applications:

<u>Application:</u>	Cariflex Revenue Mix		
	Years Ended December 31,		
	2016	2015	2014
Medical	94%	94%	94%
Industrial	6%	6%	6%

We focus our high purity IR polymers in demanding applications such as medical products, paints, coatings, and specialized footwear. Our IRL is specialized polyisoprene latex with a controlled structure and low chemical impurity level obtained through an anionic polymerization process followed by a proprietary latex processing step, both of which were first developed by us. IRL is durable, tear resistant, soft, transparent and odorless. In addition, the synthetic material is non-allergenic and has superior consistency and other advantages over natural rubber latex. As a result, IRL is a substitute for natural rubber latex, particularly in applications with high purity requirements, such as medical, healthcare, personal care such as synthetic surgical gloves and condoms as well as in food contact operations.

Our products primarily compete with natural rubber, conventional Ziegler Natta sourced solid IR, halo butyl rubber and several synthetic latex alternatives, notably neoprene, nitrile, and polychloroprene latex rubber, as well as polyurethane.

CHEMICAL SEGMENT PRODUCTS AND COMMERCIAL APPLICATIONS

We manufacture and sell high value products primarily derived from pine wood pulping co-products. We refine and further upgrade two primary feedstocks, crude tall oil (“CTO”) and crude sulfate turpentine (“CST”), both of which are co-products of the wood pulping process, into value-added specialty chemicals. We refine CTO through a distillation process into four primary constituent fractions: tall oil fatty acids (“TOFA”); tall oil rosin (“TOR”); distilled tall oil (“DTO”); and tall oil pitch. We further upgrade TOFA, TOR, and DTO into derivatives such as dimer acids, polyamide resins, rosin resins, dispersions, and disproportionated resins. We refine CST into terpene fractions, which can be further upgraded into terpene resins. The various fractions and derivatives resulting from our CTO and CST refining process provide for distinct functionalities and properties, determining their respective applications and end markets.

We focus our resources on four product groups: adhesives; roads and construction; tires; and chemical intermediates. Within our product groups, our products are sold into a diverse range of submarkets, including packaging, tapes and labels, pavement marking, high performance tires, fuel additives, oilfield and mining, coatings, metalworking fluids and lubricants, inks, and flavor and fragrances, among others.

While this business is based predominantly on the refining and upgrading of CTO and CST, we have the capacity to use both hydrocarbon-based raw materials, such as alpha-methyl-styrene (“AMS”), rosins, and gum rosins where appropriate and, accordingly, are able to offer tailored solutions for our customers.

Our Chemical segment has a portfolio of innovations at various stages of development and commercialization, including:

- adhesive tackifiers designed to enable the use of a higher amount of recycled content in packaging materials;
- high solid adhesive dispersions for labels and tapes that allow for higher coating speeds, which lower process energy costs;
- heat stable rheology ink resins that reduce formulation complexity for ink manufacturers while improving ink performance;

- high performance tire tread resins that promote wet grip, fuel economy, and tire life;
- fuel lubricity improvers that ensure low sulfur targets for diesel fuel can be met;
- bitumen additives for the asphalt paving market that enable high recycled content in asphalt mixes; and
- insoluble maleic rosin esters used in pavement marking binders that provide thermal oxidation resistance.

Our Chemical segment products are manufactured and our commercial activities are organized in the following product groups based upon end markets and process technologies:

<u>Product Groups</u>	<u>Revenue Mix</u>	
	<u>Year Ended December 31,</u>	
	<u>2016</u>	
	<u>(\$ In millions)</u>	
Adhesives	\$ 246.4	34.3%
Roads and construction	\$ 48.9	6.8%
Tires	\$ 42.5	5.9%
Chemical intermediates	\$ 381.5	53.0%

Adhesives. We offer a broad range of products to service target adhesives submarkets, including rosin-based tackifiers for packaging and pressure-sensitive adhesive applications, terpene-based tackifiers for bookbinding, hygiene and pressure-sensitive adhesive applications, AMS resins for bookbinding and pressure-sensitive adhesive applications and hot melt polyamides for flexible packaging.

Our tackifiers are primarily used in hot melt adhesives, which are heavily used in the packaging submarket. Our focus in packaging is to improve our competitive position by introducing higher stability tackifiers that work in new polymer systems. We believe our efforts to improve functionality of tackifier offerings will enable differentiated and profitable growth in emerging markets.

Roads and Construction. We provide various products for use in roads and construction applications. Within the pavement marking submarket, we provide rosin-based binders for the thermoplastic pavement marking submarket and we sell TOFA for the asphalt paving market and produce rosin esters, insoluble maleic-based tackifiers and niche products, including bitumen additives. Our performance bitumen additives were developed to increase the amount of reclaimed asphalt that can be used in a paving application, while meeting local performance specifications. We believe we have a strong market position supported by our increasing expertise in bitumen chemistry for aged materials, a comprehensive understanding of market needs, innovative product solutions, and a growing patent portfolio.

Tires. We sell a range of products that enhance the performance and manufacturing of high performance, winter, and all-season tires. Our terpene-based tread enhancement resins optimize wet grip of tire treads while maintaining reduced rolling resistance and enhanced durability which contribute to improved vehicle fuel efficiency. We market our AMS-based tread enhancement additives through product attributes that include reduced rolling resistance, increased durability, wet grip enhancement, and exceptional compatibility with rubber compounds, especially solution styrene-butadiene rubber polymers. We also sell TOFA, DTO, and rosins as processing aids, which provide select functionalities at various steps in the rubber and tire manufacturing process.

We were one of the first companies to supply tread enhancement resins to the tire industry and won early qualifications with innovative tire manufacturers. The quest for improved fuel economy has prompted the introduction of silica-based “green tires” in which certain of our products are a key component. AMS resins were the first tread enhancement additive commercialized beyond basic hydrocarbon tackifiers, and we believe they offer a good balance of properties, price, and performance for current generation tires.

Chemical Intermediates. We serve various submarkets with a wide product offering, providing value across several different applications including, among others, fuel additives, oilfield chemicals, mining fluids, coatings, metalworking fluids and lubricants, and flavors and fragrances. Our products include:

TOFA. Compared to other fatty acids obtained from various vegetable and animal origins, TOFA has a chemical composition characterized by distinctive features. For example:

<i>End use market</i>	<i>Features</i>
Coatings	<ul style="list-style-type: none"> • serves as a binder in solvent-based paints as well as in hybrid coatings • preferred over soybean oil due to its higher unsaturation, better reactivity, flexibility, and compatibility
Mining	<ul style="list-style-type: none"> • lower viscosity and higher affinity with the ore extract allow a higher recovery yield • preferred over oleic acid
Oilfield chemicals	<ul style="list-style-type: none"> • easier handling, better solubility in drilling muds, as well as higher surface activity and emulsifying power • preferred over oleic acid
Fuel additives	<ul style="list-style-type: none"> • improves the lubricity of low-sulfur diesel fuel, preventing engine fuel pump wear

Dimer Acids. Our dimer acids are used for the production of polyamide resins used in applications such as epoxy coatings, flexographic inks, and high performance adhesive applications. In addition, dimer acids are building blocks in the production of corrosion inhibitors and emulsifiers used in the production and recovery of petroleum and natural gas. Our dimer acids compete with dimer acids derived from other feedstocks such as rapeseed and cottonseed oil.

TOR. TOR is used in all major rosin applications for the manufacture of adhesives, inks, pavement markers, rubber, and paper.

DTO. DTO is a mixture of TOFA and rosin acids. Our DTO is primarily used as an emulsifier for metalworking fluids and lubricants, in which our product offers performance attributes and, in many cases, replaces less environmentally friendly hydrocarbon-based chemicals. In these applications, it is sometimes used in place of TOFA.

Terpene Fractions. We supply terpene fractions, alpha-pinene and beta-pinene, mainly as specialty tackifiers for the adhesives market and tread enhancers for the tires market.

GENERAL

Sales and Marketing

Our business is predominantly based on a short sales cycle. We sell our products through a number of channels including a direct sales force, marketing representatives, and distributors. We use third-party marketing representatives and distributors in markets where they have existing platforms and are more cost effective in completing market coverage. We have long-term relationships and a wide network of distributors across North America, Europe, Latin America, and Asia Pacific.

Our sales personnel are primarily responsible for maintaining relationships with our customer base and providing product advice. In general, they arrange and coordinate contact between our customers and our research and development personnel to provide quality control and new product solutions. Our close interaction with our customers has allowed us to develop and maintain what we consider to be strong customer relationships.

For geographic reporting, revenue is attributed to the geographic location in which the customers' facilities are located. See Note 14 *Industry Segment and Foreign Operations* to the consolidated financial statements for geographic reporting of revenue and long-lived assets. We generated our revenue from customers located in the following regions:

<u>Revenue by Geography</u>	<u>Years Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Americas	43.1%	38.4%	38.9%
Europe, Middle East, and Africa	34.3%	33.1%	36.4%
Asia Pacific	22.6%	28.5%	24.7%

Competition

In each of our markets, we compete on a range of factors, including price, breadth of product availability, product quality, and the speed of service from order to delivery. We believe our customers also base their supply decisions on the supplier's ability to design and produce customized products and the availability of technical support. We also compete against a broad range of alternative materials throughout our product groups, including petrochemical, animal and vegetable-based substitutes. Major competitors in our market include large domestic and international companies. No one or small number of competitors is dominant across all industries in which we compete.

Sources and Availability of Raw Materials

We use butadiene, styrene, and isoprene (also referred to as “monomers”) as our primary raw materials in our Polymer segment and CTO and CST in our Chemical segment. The cost of these raw materials together represented approximately \$531.1 million, or 42.0%, of our total cost of goods sold for the year ended December 31, 2016.

For our Polymer segment, we procure a substantial majority of our monomers for our Belpre, Ohio, site from U.S. suppliers pursuant to contractual arrangements generally having terms ranging from one to two years, subject to renewal conditions. In Europe, we source our butadiene pursuant to long-term contracts in effect through 2023 for our Berre, France, facility and 2040 for our Wesseling, Germany, facility. We source styrene and isoprene in Europe through a variety of short term contractual arrangements. In Brazil, we generally purchase all our raw materials from local third-party suppliers under short term contractual arrangements. In Japan, butadiene and isoprene are supplied under our joint venture agreement with JSR Corporation (“JSR”) and styrene is sourced from local third-party suppliers.

For our Chemical segment, we have an exclusive long-term supply contract with International Paper, which extends through 2027, pursuant to which they have agreed to sell to us, and we have agreed to purchase from them, all of the CTO and CST produced at its paper mills. We also maintain long-standing relationships with other major suppliers of CTO and CST in the U.S. and Europe. Additionally, our CTO supply sources are further diversified by our ability to refine and process black liquor soap into CTO in the U.S. Most of our Chemical segment manufacturing facilities are located in close proximity to the facilities of our raw material suppliers, allowing us to procure our raw materials at a low delivered cost. Furthermore, we work directly with our suppliers at their production facilities to enhance their CTO and CST yields through technological improvements, which we believe allows us to maximize our raw material supplies, improve the efficiency of our suppliers’ operations and enable us to foster strong, long-lasting relationships with them.

Research, Development, and Technology

Our research and development program is designed to develop new products and applications, provide technical service to customers, develop and optimize process technology, and assist in marketing new products. We spent \$39.5 million, \$31.0 million and \$31.4 million for research and development for the years ended December 31, 2016, 2015, and 2014, respectively.

Our research and development activities are primarily conducted in laboratories in Savannah, Georgia; Houston, Texas; Almere, Netherlands; Amsterdam, Netherlands; and Shanghai, China. In addition, we have a world class facility located at our Belpre, Ohio, plant which accelerates polymer development efforts and commercialization of products including the reduction of customer qualification lead times.

Patents, Trademarks, Copyrights, and Other Intellectual Property Rights

We rely on a variety of intellectual property rights to conduct our business, including patents, trademarks, and trade secrets. We had 1,088 granted patents and 471 pending patent applications at December 31, 2016. These patents protect our innovative technologies and applications against infringement, and create long-term, sustainable competitive advantages in our core growth markets. Since patents are generally in effect for a period of 20 years from the filing date, and therefore, assuming most of these applications will be granted, a significant portion of our patent portfolio is expected to remain in effect for a significant period. The granted patents and the applications cover both the U.S. and foreign countries. We do not expect that the expiration of any single patent or specific group of patents would have a material impact on our business and the overall profitability of our business is not dependent on any single patent, trademark, license, or franchise.

Our material trademarks will remain in effect unless we decide to abandon any of them, subject to possible third-party claims challenging our rights. Similarly, our trade secrets will preserve their status as such for as long as they are the subject of reasonable efforts, on our part, to maintain their secrecy. We maintain a number of trade names that are protected by trademark laws.

Employees

As of December 31, 2016, we had 1,971 employees, of which 1,929 are full-time employees.

Environmental Regulation

Our operations in the U.S. and abroad are subject to a wide range of environmental laws and regulations at the international, national, state, and local levels. Matters pertaining to the environment are discussed in Part I, Item 1A. *Risk Factors*; Part I, Item 3. *Legal Proceedings*; and Part II, Item 7. *Management’s Discussion and Analysis of Financial Condition and Results of Operations*.

We have made, and intend to continue to make, the expenditures necessary for compliance with applicable laws and regulations relating to health, safety, environmental, and security matters. We incurred capital expenditures in 2016 for

regulatory purposes of \$14.5 million, and estimate such expenditures to be approximately \$20.0 million in 2017 and \$20.0 million to \$25.0 million in 2018.

Costs of remediation at our current and former facilities are covered by indemnification agreements, insurance or through allocated reserves. We currently estimate that the costs of remediation will not materially affect our operations or cause us to materially exceed our anticipated level of capital expenditures. Although resolution of environmental liabilities will require future cash outlays, it is not expected that such outlays will materially impact our liquidity position, although there can be no assurance that such impacts would not occur.

Seasonality

Seasonal changes and weather conditions typically affect our sales of products in our paving, pavement marking, roofing, and construction applications, which generally results in higher sales volumes in the second and third quarters of the calendar year compared to the first and fourth quarters of the calendar year. Sales for our other product applications tend to show relatively little seasonality.

Available Information

We electronically file reports with the Securities and Exchange Commission (SEC), including annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to such reports. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet site that contains reports and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov. Additionally, information about us, including our reports filed with the SEC, is available through our web site at www.kraton.com. Such reports are accessible at no charge through our web site and are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated by reference into this report.

Item 1A. Risk Factors.

Failure to successfully integrate Arizona Chemical, including in the expected time frame, may adversely affect our future results, including the realization of anticipated cost synergies and the incurrence of additional and/or unexpected costs in order to realize them.

The success of the Arizona Chemical Acquisition will depend substantially on our ability to realize the anticipated benefits and cost synergies from combining our business with Arizona Chemical's business. To realize these anticipated benefits, the businesses must be successfully integrated and combined, and we will incur substantial costs to do so. We currently estimate the cost to achieve expected annual synergies of approximately \$65.0 million (expected to be fully realized by 2018) to be approximately \$50.0 million over the three-year period following closing of the Arizona Chemical Acquisition and in addition, we may incur future costs associated with integrating the businesses. There can be no assurance that we will be able to realize the anticipated cost synergies from the Arizona Chemical Acquisition in the anticipated amounts or within the anticipated timeframes or costs expectations, or at all.

The combined organization may not be able to achieve its objectives or expected synergies for a number of reasons, including, but not limited to, the following: (i) we may fail to integrate the Arizona Chemical business with our existing business into a cohesive, efficient enterprise; (ii) our resources, including management resources, are limited and may be strained, and the Arizona Chemical Acquisition may divert our management's attention from initiating or carrying out programs to save costs or enhance revenues; (iii) our failure to retain key employees and contracts of Arizona Chemical; and (iv) there may be operating problems or liabilities that were not identified prior to closing of the Arizona Chemical Acquisition. In addition, costs to achieve anticipated synergies and benefits may exceed our estimates, and the actual integration may result in additional and unforeseen expenses, which could reduce the anticipated benefits of the Arizona Chemical Acquisition.

Assumptions relating to these cost synergies involve subjective decisions and judgments. Although our management team believes these estimates and assumptions to be reasonable, any of the assumptions could be inaccurate. The internal financial projections used to calculate anticipated cost synergies also do not take into account any circumstances or events occurring after the date on which they were prepared. These internal financial projections reflect assumptions as to certain business decisions that are subject to change. Accordingly, there can be no assurance that the internal financial projections and the related anticipated cost synergies will be realized or that actual results will not be significantly higher or lower than projected. We undertake no obligation to update or otherwise revise or reconcile these internal financial projections and the related anticipated cost synergies whether as a result of new information, future events or otherwise.

Our substantial indebtedness could adversely affect our financial condition and prevent us from fulfilling our obligations under the terms of our indebtedness, including our senior notes and our senior secured credit facilities.

In connection with the Arizona Chemical Acquisition we:

- conducted a cash tender offer and redemption for the 6.75% Senior Notes;
- entered into a new \$1,350.0 million first lien term loan (the “Term Loan Facility”);
- amended our former senior secured credit facilities to a \$250.0 million asset-based credit facility (the “ABL Facility”), under which we drew \$37.1 million; and
- issued \$440.0 million of 10.5% senior notes due 2023 (the “10.5% Senior Notes”).

Under our new Term Loan Facility and amended ABL Facility, we may request up to an aggregate of \$350.0 million and \$100.0 million, respectively, of additional facility commitments subject to compliance with certain covenants and other conditions.

In addition, our KFPC joint venture executed a syndicated loan agreement in the amount of 5.5 billion new Taiwanese dollars (“NTD”), or \$170.8 million (converted at the December 31, 2016 exchange rate), to provide additional funding to construct the HSBC facility in Taiwan and to provide funding for working capital requirements and/or general corporate purposes. FPCC and Kraton Polymers LLC are the guarantors of the KFPC Loan Agreement with each guarantor guaranteeing fifty percent (50%) of the indebtedness, of which NTD 3.7 billion, or \$115.9 million (converted at the December 31, 2016 exchange rate), of indebtedness was outstanding as of December 31, 2016.

Although the agreements governing the Term Loan Facility, the ABL Facility, the 10.5% Senior Notes, and the KFPC Loan Agreement contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of important exceptions, and additional indebtedness that we may incur from time to time to finance projects or for other reasons in compliance with these restrictions could be substantial. If we and our restricted subsidiaries incur significant additional indebtedness, the related risks that we face could increase.

Our indebtedness could:

- make it more difficult for us to satisfy our financial obligations;
- increase our vulnerability to adverse economic and industry conditions;
- increase the risk that we breach financial covenants and other restrictions in our debt agreements, which can be exacerbated by volatility in the cost of our raw materials and the resulting impact on our earnings;
- require us to dedicate a substantial portion of our cash flow from operations to make payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in the business and industry in which we operate;
- restrict us from exploiting business opportunities;
- place us at a disadvantage compared to our competitors that have less debt and lease obligations; and
- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy and other general corporate purposes or to refinance our existing debt.

Our ability to pay principal of and interest on indebtedness, fund working capital and make anticipated capital expenditures depends on our future performance, which is subject to general economic conditions and other factors, some of which are beyond our control. There can be no assurance that our business will generate sufficient cash flow from operations or that future borrowings will be available under the ABL Facility to fund liquidity needs, including debt service. Furthermore, if we decide to undertake additional investments in existing or new facilities, this will likely require additional capital, and there can be no assurance that this capital will be available.

Despite current indebtedness levels and restrictive covenants, we and our subsidiaries may incur additional indebtedness or we may pay dividends in the future. This could further exacerbate the risks associated with our substantial financial leverage.

We and our subsidiaries may incur significant additional indebtedness in the future under the agreements governing our indebtedness. Although the terms of the Term Loan Facility, the ABL Facility and the 10.5% Senior Notes contain restrictions on the incurrence of additional indebtedness and the payment of distributions to our equity holders, these restrictions are subject to a number of thresholds, qualifications and exceptions, and the additional indebtedness incurred, and distributions paid, in compliance with these restrictions could be substantial. Additionally, these restrictions also permit us to

incur obligations that, although preferential to our common stock in terms of payment, do not constitute indebtedness. As of the date of this filing, we did not have any borrowings on the ABL Facility with a remaining available borrowing capacity of \$204.0 million. In addition, if new debt is added to our and/or our subsidiaries' debt levels, the related risks that we now face as a result of our leverage would intensify.

Our current and future debt instruments may impose significant operating and financial restrictions on us and affect our ability to access liquidity.

Our current debt instruments do, and any future debt instruments may, contain a number of restrictive covenants that impose significant operating and financial restrictions on us. Under the terms of our ABL Facility, we are subject to a financial covenant requiring us to maintain a fixed charge coverage ratio of 1.0 to 1.0 if availability under the facility is below specified amounts. In addition, our Term Loan Facility includes a senior secured net leverage ratio covenant which shall not exceed 4.00:1.00 through March 31, 2017 reducing over time to 3.25:1.00 in 2019. In addition, our debt instruments may include restrictions on our ability to, in certain circumstances, among other things:

- place liens on our or our restricted subsidiaries' assets;
- make investments other than permitted investments;
- incur additional indebtedness;
- merge, consolidate or dissolve;
- sell assets;
- engage in transactions with affiliates;
- change the nature of our business;
- change our or our subsidiaries' fiscal year or organizational documents; and
- make restricted payments (including certain equity issuances).

A failure by us or our subsidiaries to comply with the covenants and restrictions contained in the agreements governing our indebtedness could result in an event of default under such indebtedness, which could adversely affect our ability to respond to changes in our business and manage our operations. Upon the occurrence of an event of default under any of the agreements governing our indebtedness, the lenders could elect to declare all amounts outstanding to be due and payable and exercise other remedies as set forth in the agreements. Further, an event of default or acceleration of indebtedness under one instrument may constitute an event of default under another instrument. If any of our indebtedness were to be accelerated, there can be no assurance that our assets would be sufficient to repay this indebtedness in full, which could have a material adverse effect on our ability to continue to operate as a going concern.

To service our current, and any future, indebtedness, we will require a significant amount of cash, which may adversely affect our future results.

Our ability to generate cash depends on many factors beyond our control, and any failure to meet our debt service obligations could harm our business, financial condition and results of operations. Our ability to make payments on and to refinance our indebtedness, and to fund working capital needs and planned capital expenditures, will depend on our ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive, business, legislative, regulatory and other factors that are beyond our control, including, among other things, the costs of raw materials used in the production of our products.

If our business does not generate sufficient cash flow from operations or if future borrowings are not available to us in an amount sufficient to enable us to pay our indebtedness, or to fund our other liquidity needs, we may need to refinance all or a portion of our indebtedness, on or before the maturity thereof, sell assets, reduce or delay capital investments or seek to raise additional capital, any of which could have a material adverse effect on our operations. We might not generate sufficient cash flow to repay indebtedness as currently anticipated. In addition, we may not be able to effect any of these actions, if necessary, on commercially reasonable terms or at all. Our ability to restructure or refinance our indebtedness, will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. The terms of existing or future debt instruments may limit or prevent us from taking any of these actions. In addition, any failure to make scheduled payments of interest and principal on our outstanding indebtedness would likely result in a reduction of our credit rating, which could harm our ability to incur additional indebtedness on commercially reasonable terms or at all. Our inability to generate sufficient cash flow to satisfy our debt service obligations, or to refinance or restructure our obligations on commercially reasonable terms or at all, would have a material adverse effect on our business, financial condition and results of operations.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

Borrowings under the Term Loan Facility and the ABL Facility are at variable rates of interest and expose us to interest rate risk. If interest rates increase, our debt service obligations on the variable rate indebtedness will increase even though the amount borrowed will remain the same, and our net income and cash flows, including cash available for servicing our indebtedness, will correspondingly decrease. At December 31, 2016, approximately \$1,278.0 million of our debt was variable rate debt, and, holding other variables constant, an increase or decrease in interest rates by 0.125% on our variable rate debt would increase or decrease our annual interest expense by approximately \$1.6 million. Subsequent to the close of our Term Loan Facility, we entered into a series of interest rate swaps for a portion of the forecasted Term Loan Facility balance effective in January 2017 whereby we exchanged floating for fixed rate interest payments in order to reduce exposure to interest rate volatility. However, interest rate swaps we entered may not fully mitigate our interest rate risk.

Conditions in the global economy and capital markets may adversely affect the company's results of operations, financial condition and cash flows.

Our products are sold in markets that are sensitive to changes in general economic conditions, such as automotive, construction and consumer products. Downturns in general economic conditions can cause fluctuations in demand for our products, product prices, sales volumes and margins. A decline in the demand for our products or a shift to lower-margin products due to deteriorating economic conditions could adversely affect sales of our products and our profitability and could also result in impairments of certain of our assets.

Our business and operating results have been affected by fluctuating commodity prices, volatile exchange rates and other challenges currently affecting the global economy and our customers. Uncertainty regarding global economic conditions poses a continuing risk to our business, as consumers and businesses may postpone spending in response to tighter credit, negative financial news or declines in income or asset values, which may reduce demand for our products. If global economic and market conditions, or economic conditions in key markets, remain uncertain or deteriorate further, our results of operations, financial condition and cash flows could be materially adversely affected.

The failure of our raw materials suppliers to perform their obligations under long-term supply agreements, or our inability to replace or renew these agreements when they expire, could increase our cost for these materials, interrupt production or otherwise adversely affect our results of operations.

Our manufacturing processes use the following primary raw materials: butadiene; styrene; isoprene; CTO, including black liquor soap that we refine into CTO and CST. We have long-term supply agreements with LyondellBasell, International Paper, and others to supply our raw material needs in the U.S. and Europe.

In addition, most of our long-term contracts contain provisions that allow our suppliers to limit, or allocate, the amount of raw materials shipped to us below the contracted amount in certain circumstances. If we are required to obtain alternate sources for raw materials because a supplier is unwilling or unable to perform under raw material supply agreements, if a supplier terminates its agreements with us, if we are unable to renew our existing contract, or if we are unable to obtain new long-term supply agreements to meet changing demand, we may not be able to obtain these raw materials in sufficient quantities or in a timely manner, and we may not be able to enter into long-term supply agreements on terms as favorable to us, if at all. A lack of availability of raw materials could have a material adverse effect on our results of operations, financial condition and cash flows.

If the availability of isoprene is limited, we may be unable to produce some of our products in quantities or on economic terms sought by our customers, which could have an adverse effect on our sales of products requiring isoprene.

Isoprene is not widely available, and the few isoprene producers tend to use their production for captive manufacturing purposes or to sell only limited quantities into the world chemicals market. As a result, there is limited non-captive isoprene available for purchase in the markets in which we operate.

Currently, we source our isoprene requirements for the U.S. and Europe from a portfolio of suppliers. In Japan, we obtain the majority of our isoprene requirements from our joint venture partner, JSR, and from alternative suppliers as needed. In Brazil, isoprene is primarily obtained from local third party suppliers under short term contractual arrangements. These suppliers may not be able to meet our isoprene requirements, and we may not be able to obtain isoprene in quantities required for our operations on terms favorable to us, or at all. A lack of availability of isoprene in the quantities we require to produce products containing isoprene could have a material adverse effect on our results of operations.

Because there is limited non-captive isoprene availability, the market for isoprene is thin and prices are particularly volatile. Prices for isoprene are impacted by the supply and prices of natural and synthetic rubber, prevailing energy prices and the existing supply and demand of isoprene in the market. In the past, tight supply in the isoprene market has been exacerbated by operational problems of some key producers and reduced availability of crude C5 inputs for the extraction units. More recently, the trend toward lighter ethylene cracker feed slates has reduced the supply of crude C5 in the U.S. This decrease has been replaced by imports of crude C5 and/or isoprene. Significant increases in the cost of isoprene could have a material adverse impact on our results of operations, financial condition and cash flows.

If the availability of butadiene is limited, we may be unable to produce some of our products in quantities or on economic terms sought by our customers, which could have an adverse effect on our sales of products requiring butadiene.

The North American market is structurally short of butadiene and has relied on imports of crude C4 and/or butadiene to balance demand. With the trend toward lighter ethylene cracker feed slates in the U.S., there has been a reduction in the supply of crude C4. The North American market has been supplemented by imports of crude C4 and butadiene. Historically, the European market has been better balanced and provided exports to North America. Currently, our butadiene requirements in the U.S. are satisfied by several suppliers, and LyondellBasell is our major butadiene supplier in Europe. In general, the quantity of butadiene available in any one region is dependent on the cracking inputs of olefins plants, ethylene demand, inter-regional demand for butadiene and demand for other oil derivatives. Suppliers may not be able to meet our butadiene requirements, and we may not be able to obtain substitute supplies of butadiene from alternative suppliers in a timely manner or on favorable terms. A lack of availability of butadiene in the quantities we require to produce products containing butadiene could have a material adverse effect on our results of operations, financial condition and cash flows.

If the availability of styrene is limited, we may be unable to produce some of our products in quantities or on economic terms sought by our customers, which could have an adverse effect on facility utilization and our sales of products requiring styrene.

We satisfy our styrene requirements in the U.S. and Europe pursuant to purchase agreements with terms of one to two years, subject to renewal conditions. We have more than one supplier in each of these regions and also generally have alternatives for either modifying the contract, supply portfolio or obtaining spot supply. As contracts expire, we cannot give assurances that we will obtain new long-term supply agreements or that the terms of any such agreements will be on terms favorable to us, and consequently our future acquisition costs for styrene may therefore increase which could have a material adverse effect on our results of operations, financial condition and cash flows.

If the availability of CTO is limited, we may be unable to produce some of our products in quantities or on economic terms sought by our customers, which could have an adverse effect on facility utilization and the sales of products requiring CTO.

The availability of CTO is directly linked to the production output of kraft mills using pine as their source of pulp. As a result, there is a finite global supply of CTO, with global demand for kraft board driving the global supply of CTO, rather than demand for CTO itself. Most of the CTO made available for sale by its producers in North America is covered by long-term supply agreements, further constraining availability. We have a long-term supply contract with International Paper pursuant to which they sell to us all of the CTO produced at their paper mills. If International Paper, or any of our other suppliers for CTO, fail to meet their respective obligations under supply agreements or if we are otherwise unable to procure an adequate supply of CTO, we may be unable to produce the quantity of products needed to satisfy customer demand. There are other pressures on the availability of CTO. Some pulp or paper mills may choose to consume their production of CTO to meet their energy needs rather than sell the CTO to third parties. Also, there are regulatory pressures that may incentivize suppliers of CTO to sell CTO into alternative fuel markets rather than to historical end users. Furthermore, weather conditions have in the past and may in the future affect the availability and quality of pine trees used in the kraft pulping process and therefore the availability of CTO meeting our quality standards. A lack of availability of CTO in the quantities we require to produce products containing CTO could have a material adverse effect on our results of operations, financial condition and cash flows.

The European Union’s Directive 2009/28 on the promotion of the use of energy from renewable resources (“Renewable Energy Directive” or “RED”) and similar legislation in the U.S. and elsewhere may incentivize the use of CTO as a feedstock for production of alternative fuels.

In December 2008, the European Union adopted RED, which established a 20% EU-wide target for energy consumed from renewable sources relative to the EU’s gross final consumption of energy, as well as a 10% target for energy consumed from renewable sources in the transport section by 2020. In order to reach these targets, the RED established mandatory targets for each Member State (as defined in RED) and required each Member State to adopt a national renewable energy action plan setting forth measures to achieve its national targets. RED also established sustainability criteria for biofuels, which must be satisfied in order for the consumption of a fuel to count toward a Member State’s national targets. CTO-based biofuel currently fulfills RED’s biofuel sustainability criteria. In spring 2015, the EU adopted amendments to RED, expressly listing CTO as a residue-type feedstock whose use in biofuel would make that biofuel eligible for double counting towards national targets of the Member States, and at least two Member States additionally have or plan fiscal incentives for the domestic marketing of CTO-based and other qualifying biofuels. In addition to these developments in the European Union, various pieces of legislation regarding the use of alternative fuels have been introduced in the U.S. Because the supply of CTO is inherently constrained by the volume of kraft pulp processing, any diversion of CTO for production of alternative fuels would reduce the available supply of CTO as the principal raw material of the pine chemicals industry. A reduced ability to procure an adequate supply of CTO due to competing new uses such as for biofuel production, could have a material adverse effect on our results of operations, financial condition and cash flows.

Increases in the costs of our raw materials could have an adverse effect on our financial condition and results of operations if those costs cannot be passed onto our customers.

Our results of operations are directly affected by the cost of raw materials. We use butadiene, styrene, and isoprene (also referred to as “monomers”) as our primary raw materials in our Polymer segment and CTO and CST in our Chemical segment. On a first-in, first-out (FIFO) basis, these raw materials together represented approximately \$531.1 million, \$385.2 million, and \$512.8 million or 42.0%, 47.8%, and 51.6% of our total cost of goods sold for the years ended December 31, 2016, 2015 and 2014, respectively. Since the cost of these primary raw materials comprise a significant amount of our total cost of goods sold, the selling prices for our products and therefore our total revenue is impacted by movements in these raw material costs, as well as the cost of other inputs. In the past we have experienced erratic and significant changes in the costs of these raw materials, the cost of which has generally correlated with changes in energy prices, supply and demand factors, and prices for natural and synthetic rubber. The pricing for butadiene has historically been particularly volatile. Political unrest in the Middle East and market dislocation resulting from U.S. sanctions relating thereto could lead to increases in the price of crude oil, and, as a result, in the price of our raw materials. In addition, product mix can have an impact on our overall unit selling prices, since we provide an extensive product offering and therefore experience a wide range of unit selling prices. Because of the significant portion of our cost of goods sold represented by these raw materials, our gross profit margins could be adversely affected by changes in the cost of these raw materials if we are unable to pass the increases on to our customers.

Due to volatile raw material price increases, there can be no assurance that we can continue to recover raw material costs or retain customers in the future. As a result of our pricing actions, customers may become more likely to consider competitors’ products, some of which may be available at a lower cost. Significant loss of customers could result in a material adverse effect on our results of operations, financial condition and cash flows.

Significant fluctuations in raw material costs may result in volatility in our quarterly operating results and impact the market price of our common stock.

In periods of raw material price volatility, reported results under U.S. generally accepted accounting principles (“U.S. GAAP”) will differ from what the results would have been if cost of goods sold were based on estimated current replacement cost (“ECRC”). Specifically, in periods of declining raw material costs, reported gross profit will be lower under U.S. GAAP than under ECRC, and in periods of rising raw material costs, gross profit will be higher under U.S. GAAP than under ECRC. However, because raw material costs are difficult to predict, we cannot accurately anticipate fluctuations in raw material costs with precision, or effectively or economically hedge against the effects of any such change. If raw material costs fluctuate in a quarter, our results of operations will be affected, the magnitude of which could be significant, which could cause our earnings to depart from the periodic expectations of financial analysts or investors and, therefore, the market price of our common stock may be volatile as a result.

LyondellBasell Industries provides significant operating and other services under agreements that are important to our business. The failure of LyondellBasell to perform its obligations, or the termination of these agreements, could adversely affect our operations.

We have operating and service agreements with LyondellBasell Industries, or LyondellBasell, that are important to our business. We are a party to:

- operating agreements under which LyondellBasell (in Berre, France, and Wesseling, Germany) operates and maintains our European manufacturing facilities and employs and provides substantially all of the staff for those facilities; these operating agreements also provide for site services, utilities, materials and facilities, which had previously been under separate agreements; and
- lease agreements under which we lease our European manufacturing sites for our Polymers Business (a 96 kiloton capacity facility in Wesseling, Germany, and an 76 kiloton capacity facility in Berre, France) from LyondellBasell.

Under the terms of the above agreements, either party is permitted to terminate the applicable agreement in a variety of situations. The operating agreement for our Berre facility has an unlimited term, but is terminable as of any date after December 31, 2020 following a minimum 18 months notice by either party. As of the date of this filing, no such notice has been given by either party. Should LyondellBasell fail to provide these services or should any operating agreement be terminated, we would be forced to obtain these services from third parties or provide them ourselves. Similarly, if in connection with or independent from the termination of an operating agreement, LyondellBasell terminates a facility lease, we would be forced to relocate our manufacturing facility. The failure of LyondellBasell to perform its obligations under, or the termination of, any of these agreements could materially adversely affect our operations and, depending on market conditions at the time of any such termination, we may not be able to enter into substitute arrangements in a timely manner, if at all, and if we are able to enter into a substitute arrangement, it may not be on terms as favorable to us.

Our industry is highly competitive, and we may lose market share to other producers of SBCs, pine based specialty chemicals or other products that can be substituted for our products.

Our industry is highly competitive, and we face significant competition from both large international producers and from smaller regional competitors. Our competitors may improve their competitive position in our core markets by successfully introducing new products, improving their manufacturing processes, or expanding their capacity or manufacturing facilities. Further, some of our competitors benefit from advantageous cost positions that could make it increasingly difficult for us to compete in markets for less-differentiated applications. If we are unable to keep pace with our competitors' product and manufacturing process innovations or cost position, it could have a material adverse effect on our results of operations, financial condition and cash flows.

In addition, competition in the various product applications in which we compete is intense. Increased competition from existing or newly developed SBCs, pine-based specialty chemicals or other products may reduce demand for our products in the future and our customers may decide on alternate sources to meet their requirements. If we are unable to successfully compete with other producers of SBCs or refiners of CTO, or if other products can be successfully substituted for our products, our sales may decline. Our tall oil-based resins compete against hydrocarbon and gum-based resins in the adhesives and inks submarkets, and our TOFA competes against animal and vegetable-based fatty acids. We could be subject to pricing pressure from Chinese manufacturers of gum rosins, and hydrocarbon competitors have introduced metallocene-based products that compete directly with many of our adhesive tackifiers.

If we are not able to continue the technological innovation and successful commercial introduction of new products, our customers may turn to other producers to meet their requirements.

Our industry and the markets into which we sell our products experience periodic technological change and ongoing product improvements. In addition, our customers may introduce new generations of their own products or require new technological and increased performance specifications that would require us to develop customized products. Innovation or other changes in our customers' product performance requirements may also adversely affect the demand for our products. Our future growth and profitability will depend on our ability to gauge the direction of the commercial and technological progress in all key markets, and upon our ability to successfully develop, manufacture and sell products in such changing markets. In order to maintain our profit margins and our competitive position, we must continue to identify, develop and market innovative products on a timely basis to replace existing products. We may not be successful in developing new products and technology that successfully compete with newly introduced products and materials, and our customers may not accept, or may have lower demand for, any of our new products. Further, an important part of our strategy is the creation of demand for innovations that we develop and introduce to the markets. If we fail to keep pace with evolving technological innovations, fail to modify our products in response to our customers' needs or fail to develop innovations that generate additional demand, then our business,

financial condition and results of operations could be adversely affected as a result of reduced sales of our products or diminished return on investment in innovations.

Our business relies on intellectual property and other proprietary information, and our failure to protect our rights could harm our competitive advantages with respect to the manufacturing of some of our products.

Our success depends, to a significant degree, upon our ability to protect and preserve our intellectual property and other proprietary information relating to our business. However, we may be unable to prevent third parties from using our intellectual property and other proprietary information without our authorization or from independently developing intellectual property and other proprietary information that is similar to ours, particularly in those countries where the laws do not protect our proprietary rights to the same degree as in the U.S. The use of our intellectual property and other proprietary information by others could reduce or eliminate any competitive advantage we have developed, potentially causing us to lose sales or otherwise harm our business. If it becomes necessary for us to litigate to protect these rights, any proceedings could be burdensome and costly, and we may not prevail.

In addition, we acquired a significant number of patents from Shell Chemicals. According to the agreements with Shell Chemicals relating to their contribution of these patents to us and our ownership of these patents, Shell Chemicals retained for itself fully-transferable and exclusive licenses to their use outside of the elastomers business, as well as fully-transferable non-exclusive licenses within the field of elastomers for certain limited uses in non-competing activities. Shell Chemicals is permitted to sublicense these rights. Shell Chemicals also retains the right to enforce these patents outside the elastomers field and recover any damages resulting from these actions.

Our patent applications and issued patents may not provide us with any competitive advantage and may be challenged by third parties. Our competitors may also attempt to design around our patents or copy or otherwise obtain and use our intellectual property and other proprietary information. Moreover, our competitors may already hold or have applied for patents in the U.S. or abroad that, if enforced or issued, could possibly prevail over our patent rights or otherwise limit our ability to manufacture or sell one or more of our products in the U.S. or abroad. With respect to our pending patent applications, we may not be successful in securing patents for these claims. Our failure to secure these patents may limit our ability to protect inventions that these applications were intended to cover. In addition, the expiration of a patent can result in increased competition with consequent erosion of profit margins.

Our confidentiality agreements could be breached or may not provide meaningful protection for our trade secrets or proprietary manufacturing expertise. Adequate remedies may not be available in the event of an unauthorized use or disclosure of our trade secrets and manufacturing expertise. Violations by others of our confidentiality agreements and the loss of employees who have specialized knowledge and expertise could harm our competitive position and cause our sales and operating results to decline as a result of increased competition. In addition, others may obtain knowledge of our trade secrets through independent development or other access by legal means.

The applicable governmental authorities may not approve our pending service mark and trademark applications. A failure to obtain trademark registrations in the U.S. and in other countries could limit our ability to obtain and retain our trademarks and impede our marketing efforts in those jurisdictions. Moreover, third parties may seek to oppose our applications or otherwise challenge the resulting registrations. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing new brands.

The failure of our patents, trademarks or confidentiality agreements to protect our intellectual property and other proprietary information, including our processes, apparatuses, technology, trade secrets, trade names and proprietary manufacturing expertise, methods and compounds, could have a material adverse effect on our competitive advantages over other producers.

Our products may infringe on the intellectual property rights of others, which may cause us to incur unexpected costs or prevent us from selling our products.

Many of our competitors have a substantial amount of intellectual property. We cannot guarantee that our processes and products do not and will not infringe issued patents (whether present or future) or other intellectual property rights belonging to others, including, without limitation, situations in which our products, processes or technologies may be covered by patent applications filed by other parties in the U.S. or abroad.

From time to time, we oppose patent applications that we consider overbroad or otherwise invalid in order to maintain the necessary freedom to operate fully in our various business lines without the risk of being sued for patent infringement. If, however, patents are subsequently issued on any such applications by other parties, or if patents belonging to others already exist that cover our products, processes or technologies, we could be liable for infringement or have to take other remedial or curative actions to continue our manufacturing and sales activities with respect to one or more products.

We may also be subject to legal proceedings and claims in the ordinary course of our business, including claims of alleged infringement of the patents, trademarks and other intellectual property rights of third parties by us or our licensees in connection with their use of our products. Intellectual property litigation is expensive and time-consuming, regardless of the merits of any claim, and could divert our management's attention from operating our business.

If we were to discover that our processes, technologies or products infringe the valid intellectual property rights of others, we might need to obtain licenses from these parties or substantially re-engineer our products in order to avoid infringement. We may not be able to obtain the necessary licenses on acceptable terms, or at all, or be able to re-engineer our products successfully. Moreover, if we are sued for infringement and lose, we could be required to pay substantial damages and/or be enjoined from using or selling the infringing products or technology. If we incur significant costs to litigate our intellectual property rights or to obtain licenses, or if our inability to obtain required licenses for our processes, technologies or products prevents us from selling our products, it could have a material adverse effect on our business and results of operations.

Increased information systems security threats and more sophisticated and targeted computer crime could pose a risk to our systems, networks, products, and services.

We depend on integrated information systems to conduct our business. Increased global information systems security threats and more sophisticated, targeted computer crime pose a risk to the security of our systems and networks and the confidentiality, availability, and integrity of our data, operations, and communications. While we attempt to mitigate these risks by employing a number of measures, including employee training, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems, our systems, networks, and products remain potentially vulnerable to cyber security threats. If our systems for protecting against these risks prove not to be sufficient, we could be adversely affected by, among other things, loss or damage of intellectual property, proprietary and confidential information, and communications or customer data, having our business operations interrupted and increased costs to prevent, respond to or mitigate against these cyber security threats. Any significant disruption or slowdown of our systems could cause customers to cancel orders or cause standard business processes to become inefficient or ineffective, which could adversely affect our results of operations, financial position or cash flows. Additionally, in connection with the Arizona Chemical Acquisition, integration activities for our separate ERP systems began in 2016. Disruption to the integration process could affect functionality, which could affect the conduct of our business.

Our business is subject to seasonality that may affect our quarterly operating results and impact the market price of our common stock.

Seasonal changes and weather conditions typically affect our sales in our paving (including pavement markings), roofing, and construction applications. In particular, sales volumes generally rise in the warmer months and generally decline during the colder months of fall and winter, or during abnormally wet seasons. In addition, sales into the ink submarket are typically highest in the third quarter of the year due to increased demand for holiday catalog printing. However, because seasonal weather patterns are difficult to predict, we cannot accurately estimate quarterly fluctuations in sales into our paving, roofing, construction, and ink submarkets in any given year.

Seasonality also affects the availability of CTO and CST, two of our primary raw materials. Yields of CTO and CST are higher during the first half of the year, generally peaking during the early summer months, due to the natural growth and associated chemical yield cycles of trees, in addition to higher yields from kraft pulping during the cooler months.

Chemical manufacturing is inherently hazardous, which could result in accidents that disrupt our operations or expose us to significant losses or liabilities.

Hazards associated with chemical manufacturing and the related storage and transportation of raw materials, products and wastes exist in our operations and the operations of other occupants with whom we share manufacturing sites. These hazards could lead to an interruption or suspension of operations and have an adverse effect on the productivity and profitability of a particular manufacturing facility or on us as a whole. These potential risks include, but are not necessarily limited to:

- pipeline and storage tank leaks and ruptures;
- explosions and fires;
- inclement weather and natural disasters;
- terrorist attacks;
- mechanical failure; and
- chemical spills and other discharges or releases of toxic or hazardous substances or gases.

These hazards may result in personal injury and loss of life, damage to property and contamination of the environment, which may result in a suspension of operations and the imposition of civil or criminal penalties, including governmental fines, expenses for remediation and claims brought by governmental entities or third parties. The loss or shutdown of operations over an extended period at any of our major operating facilities could have a material adverse effect on our industry, reputation, or our financial condition and results of operations. Our property, business interruption and casualty insurance may not fully insure us against all potential hazards incidental to our business.

We may be liable for damages based on product liability claims brought against our customers.

Many of our products provide critical performance attributes to our customers' products that are sold to consumers who could potentially bring product liability suits in which we could be named as a defendant. For example, certain of the chemicals or substances that are used in our businesses, including alkyl phenols such as bisphenol A and nonylphenol, flammable solvents such as toluene, xylene and alcohols, and rosin, formaldehyde and resin dust, have been identified as having potentially harmful health effects. The sale of these products entails the risk of product liability claims. If a person were to bring a product liability suit against one of our customers, the customer may attempt to seek contribution from us. A person may also bring a product liability claim directly against us. A successful product liability claim or series of claims against us in excess of our insurance coverage, for which we are not otherwise indemnified, could have a material adverse effect on our industry, reputation, or our financial condition or results of operations. There can be no assurance that our efforts to protect ourselves from product liability claims in this regard will ultimately protect us from any such claims.

Failure to comply with the Foreign Corrupt Practices Act and other similar worldwide anti-bribery and anti-corruption laws may subject to us penalties and adversely affect our operations and reputation.

Our international operations require us to comply with a number of U.S. and international laws and regulations, including those involving anti-bribery and anti-corruption. In particular, our international operations are subject to U.S. and foreign anti-corruption laws and regulations, including the regulations imposed by the Foreign Corrupt Practices Act ("FCPA"), which generally prohibits issuers and their strategic or local partners, agents or representatives, which we refer to as our intermediaries (even if those intermediaries are not themselves subject to the FCPA or other similar laws), from making improper payments to foreign officials for the purpose of obtaining or keeping business or obtaining an improper business benefit, and the United Kingdom Bribery Act 2010 (the "Bribery Act") as well as anti-bribery and anti-corruption laws of the various jurisdictions in which we operate. We currently take precautions to comply with these laws. However, these precautions may not protect us against liability, particularly as a result of actions by our intermediaries through whom we have exposure under these anti-bribery and anti-corruption laws even though we may have limited or no ability to control such intermediaries. Additionally, we have operations in certain countries where strict compliance with anti-bribery and anti-corruption laws may conflict with local customs and practices. In order to effectively operate in certain foreign jurisdictions, circumstances may require that we establish joint ventures with local operators or use third-party agents, distributors and marketing representatives. The establishment of joint ventures with local operators and the use of third-party intermediaries may expose us to the risk of violating, or being accused of violating, the foregoing or other anti-bribery or anti-corruption laws. Such violations could be punishable by criminal fines, imprisonment, civil penalties, disgorgement of profits, injunctions and exclusion from government contracts, as well as other remedial measures. Investigations of alleged violations can be very expensive, disruptive and damaging to our reputation and could negatively impact our stock price. Failure by us or our intermediaries to comply with the foregoing or other anti-bribery or anti-corruption laws could adversely impact our results of operations, financial position, and cash flows, damage our reputation and negatively impact our stock price.

As a global business, we are exposed to local business risks in different countries, which could have a material adverse effect on our financial condition or results of operations.

We procure raw material from foreign countries and have significant operations in foreign countries, including manufacturing facilities, research and development facilities, sales personnel and customer support operations. Currently, we operate, or others operate on our behalf, facilities in Brazil, Finland, France, Germany, Japan and Sweden, in addition to our operations in the U.S. Furthermore, we are a 50/50 joint venture partner with FPCC to own and operate a 30 kiloton HSBC plant at FPCC's petrochemical site in Mailiao, Taiwan.

Our foreign operations are subject to risks inherent in doing business in foreign countries, including, but not necessarily limited to:

- new and different legal and regulatory requirements in local jurisdictions;
- export duties or import quotas;
- domestic and foreign customs and tariffs or other trade barriers;
- potential staffing difficulties and labor disputes;

- risk of non-compliance with the U.S. FCPA or similar anti-bribery legislation in other countries by agents or other third-party representatives;
- managing and obtaining support and distribution for local operations;
- increased costs of transportation or shipping;
- credit risk and financial conditions of local customers and distributors;
- potential difficulties in protecting intellectual property;
- risk of nationalization of private enterprises by foreign governments;
- potential imposition of restrictions on investments;
- varying permitting and approval requirements;
- potentially adverse tax consequences, including imposition or increase of withholding and other taxes on remittances and other payments by subsidiaries;
- foreign currency exchange restrictions and fluctuations;
- local political and social conditions, including the possibility of hyperinflationary conditions and political instability in certain countries; and
- civil unrest, including labor unrest, in response to local political conditions.

We may not be successful in developing and implementing policies and strategies to address the foregoing risks in a timely and effective manner at each location where we do business or from where we procure raw materials. Consequently, the occurrence of one or more of the foregoing risks could have a material adverse effect on our international operations or upon our financial condition and results of operations.

Compliance with extensive environmental, health and safety laws could require material expenditures, changes in our operations or site remediation.

The manufacturing of our products can present potentially significant health and safety concerns. Our products are also used in a variety of applications that have specific regulatory requirements such as those relating to products that have contact with food or are used for medical applications.

We use large quantities of hazardous substances and generate hazardous wastes in our manufacturing operations. Consequently, our operations are subject to extensive environmental, health and safety laws and regulations at the international, national, state and local level in multiple jurisdictions. These laws and regulations govern, among other things, air emissions, wastewater discharges, solid and hazardous waste management and disposal, occupational health and safety, including dust and noise control, site remediation programs and chemical use and management. Many of these laws and regulations have become more stringent over time and the costs of compliance with these requirements may increase, including costs associated with any necessary capital investments. In addition, our production facilities require operating permits that are subject to renewal and, in some circumstances, revocation. The necessary permits may not be issued or continue in effect, and renewals of any issued permits may contain significant new requirements or restrictions. The nature of the chemical industry exposes us to risks of liability due to the use, production, management, storage, transportation and sale of materials that are heavily regulated or hazardous and can cause contamination or personal injury or damage if released into the environment.

Because of the nature of our operations, we could be subject to legislation and regulation affecting the emission of greenhouse gases. In the last five years, the U.S. Environmental Protection Agency (“EPA”) promulgated regulations applicable to projects involving greenhouse gas emissions above a certain threshold, and the U.S. and certain states within the U.S. have enacted, or are considering, limitations on greenhouse gas emissions.

Jurisdictions outside the U.S. are also addressing greenhouse gases by legislation or regulation. In addition, efforts have been made and continue to be made at the international level toward the adoption of international treaties or protocols that would address global greenhouse gas emissions. These requirements to limit greenhouse gas emissions may require us to incur capital investments to upgrade our operations to comply with any future greenhouse gas emissions controls. While the impact of any such legislation, regulation, treaties or protocols is currently speculative, any such legislation, regulation, treaties or protocols, if enacted, may have an adverse effect on our operations or financial condition. Further, some scientific studies on the effect of the emission of greenhouse gases on climate suggest that adverse weather events may become stronger or more frequent in the future in certain of the areas in which we operate, although the scientific studies are not unanimous. Due to their location, some of our operations may be vulnerable to operational and structural damages resulting from hurricanes and other severe weather systems. Our insurance may not cover all associated losses. We are taking steps to mitigate physical risks from storms, but no assurance can be given that future storms will not have a material adverse effect on our business.

Compliance with environmental laws and regulations generally increases the costs of transportation and storage of raw materials and finished products, as well as the costs of storage and disposal of wastes. We may incur substantial costs, including fines, damages, criminal or civil sanctions and remediation costs, or experience interruptions in our operations for violations arising under environmental laws, regulations or permit requirements.

Regulation of our employees' exposure to certain chemicals could require material expenditures or changes in our operations.

The Occupational Safety and Health Act ("OSHA") in the U.S. and the Registration, Evaluation and Authorization of Chemicals ("REACH"), directive in Europe, prescribe limitations restricting exposure to a number of chemicals used in our operations, including butadiene, formaldehyde and nonylphenol, a raw material used in the manufacture of phenolic ink resins. Butadiene is a known carcinogen in laboratory animals at high doses and is being studied for its potential adverse health effects. Future studies on the health effects of these, and other, chemicals may result in additional regulations or new regulations that further restrict or prohibit the use of, and exposure to, such chemicals. Additional regulation of or requirements for these chemicals could require us to change our operations, and these changes could affect the quality of our products and materially increase our costs.

We may be subject to losses due to lawsuits arising out of environmental damage or personal injuries associated with chemical manufacturing.

We face the risk that individuals could, in the future, seek damages for personal injury due to exposure to chemicals at our facilities or to chemicals otherwise owned or controlled by us. We may be subject to future claims with respect to workplace exposure, workers' compensation and other matters that are filed after the date of our acquisition of Shell Chemicals' elastomers business. While Shell Chemicals has agreed to indemnify us for certain claims brought with respect to matters occurring before our separation from Shell Chemicals in February 2001, those indemnity obligations are subject to limitations, and we cannot be certain that those indemnities will be sufficient to satisfy claims against us. In addition, we face the risk that future claims would fall outside of the scope of the indemnity due either to the limitations on the indemnity or to their arising from events and circumstances occurring after February 2001. Finally, under certain of the lease and operating agreements under which LyondellBasell leases and provides services to our sites in Wesseling, Germany, and Berre, France, we are required to indemnify LyondellBasell in certain circumstances, including in certain circumstances for loss and damages resulting from LyondellBasell's negligence in performing their obligations.

Some environmental laws could impose on us the entire cost of clean-up of contamination present at a facility even though we did not cause the contamination. These laws often identify the site owner as one of the parties that can be jointly and severally liable for on-site remediation, regardless of fault or whether the original activity was legal at the time it occurred. For example, our Belpre, Ohio, facility is the subject of a required remediation program to clean up past contamination at the site and at an adjacent creek and we are a party to that site clean-up order. While Shell Chemicals has posted financial assurance of \$5.2 million for this program and has taken the lead in implementing the program, we may incur costs and be required to take action under this program. Similarly, the Shell Chemicals indemnity for remediation at the Belpre facility may not cover all claims that might be brought against us.

Our Paulinia, Brazil, facility also has on-site contamination resulting from past operations of Shell Chemicals. Although an indemnity from Shell Chemicals covers claims related to specified areas within the facility, we may be required to undertake and pay for remediation of these and other areas. The indemnity coverage from Shell Chemicals is limited in time and amount and we cannot rely upon it to cover possible future claims for on-site contamination separate from the areas specified in the indemnity. The Paulinia facility is also adjacent to a former Shell Chemicals site where we believe past manufacturing of hydrocarbons resulted in significant contamination of soil and groundwater and required relocation of nearby residents. It is our understanding that the Shell Chemicals portion of the site has changed ownership several times, which may impact financial responsibility for contamination on the site. While we are not aware of any significant contamination at our Paulinia facility, we could potentially be the subject of claims related to pesticide contamination and effects at some point in the future.

With respect to the Arizona Chemical Acquisition, International Paper provided an indemnification to the buyer with the divestiture of Arizona Chemical in February 2007. This indemnity covered specific known environmental liabilities and other environmental liabilities pertaining to former properties. At the closing of the Arizona Chemical Acquisition, Kraton was assigned the right to International Paper's indemnity for such environmental liabilities and assumed certain related obligations. Certain liabilities may fall outside the scope of the indemnity and therefore we cannot be certain that the indemnity will be sufficient to satisfy all environmental liabilities of Arizona Chemical.

In general, there is always the possibility that a third-party plaintiff or claimant, or governmental or regulatory authority, could seek to include us in an action or claim for damages, clean-up, or remediation pertaining to events or circumstances occurring or existing at one or more of our sites prior to the time of our ownership or occupation of the

applicable site. In the event that any of these actions or claims were asserted against us, our results of operations could be adversely affected.

We are subject to customs, international trade, export control, antitrust, zoning and occupancy and labor and employment laws that could require us to modify our current business practices and incur increased costs.

We are subject to numerous regulations, including customs and international trade laws, export control, antitrust laws and zoning and occupancy laws that regulate manufacturers generally and/or govern the importation, promotion and sale of our products, the operation of factories and warehouse facilities and our relationship with our customers, suppliers and competitors. In addition, we face risk associated with trade protection laws, policies and measures and other regulatory requirements affecting trade and investment, including loss or modification of exemptions for taxes and tariffs, imposition of new tariffs and duties and import and export licensing requirements. If these laws or regulations were to change or were violated by our management, employees, suppliers, buying agents or trading companies, the costs of certain goods could increase, or we could experience delays in shipments of our goods, be subject to fines or penalties, or suffer reputational harm, which could reduce demand for our products and hurt our business and negatively impact our results of operations. In addition, changes in federal and state minimum wage laws and other laws relating to employee benefits could cause us to incur additional wage and benefits costs, which could negatively impact our profitability.

Legal requirements are frequently changed and subject to interpretation, and we are unable to predict the ultimate cost of compliance with these requirements or their effects on our operations. We may be required to make significant expenditures or modify our business practices to comply with existing or future laws and regulations, which may increase our costs and materially limit our ability to operate our business.

Fluctuations in currency exchange rates may significantly impact our results of operations and may significantly affect the comparability of our results between financial periods.

Our operations are conducted by our subsidiaries in many countries. The results of the operations and the financial position of these subsidiaries are reported in the relevant foreign currencies and then translated into U.S. dollars at the applicable exchange rates for inclusion in our consolidated financial statements. The main currencies to which we are exposed, besides the U.S. dollar, are the Euro, Japanese Yen, Brazilian Real, and Swedish Krona. The exchange rates between these currencies and the U.S. dollar in recent years have fluctuated significantly and may continue to do so in the future. A depreciation of these currencies against the U.S. dollar will decrease the U.S. dollar equivalent of the amounts derived from these operations reported in our consolidated financial statements and an appreciation of these currencies will result in a corresponding increase in such amounts. Because many of our raw material costs are determined with respect to the U.S. dollar rather than these currencies, depreciation of these currencies may have an adverse effect on our profit margins or our reported results of operations. Conversely, to the extent that we are required to pay for goods or services in foreign currencies, the appreciation of such currencies against the U.S. dollar will tend to negatively impact our results of operations. In addition, currency fluctuations may affect the comparability of our results of operations between financial periods.

We incur currency transaction risk whenever we enter into either a purchase or sale transaction using a currency other than the local currency of the transacting entity. From time to time, we use hedging strategies to reduce our exposure to currency fluctuations. Given the volatility of exchange rates, there can be no assurance that we will be able to effectively manage our currency transaction risks, that our hedging activities will be effective or that any volatility in currency exchange rates will not have a material adverse effect on our financial condition or results of operations.

We may have additional tax liabilities, which may adversely affect our financial position.

We are subject to income taxes and state taxes in the U.S., as well as numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different to that which is reflected in our consolidated financial statements. Should any tax authority take issue with our estimates, our results of operations, financial position, and cash flows could be adversely affected.

We may be unable to realize the benefits of our net operating loss carry-forwards (“NOLs”).

NOLs may be carried forward to offset federal and state taxable income in future years and eliminate income taxes otherwise payable on such taxable income, subject to certain adjustments. Based on current federal and state corporate income tax rates, our NOLs and other carry-forwards could provide a benefit to us, if fully utilized, of significant future tax savings. However, our ability to use these tax benefits in future years will depend upon the amount of our otherwise federal and state taxable income. If we do not have sufficient federal and state taxable income in future years to use the tax benefits before they expire, we will lose the benefit of these NOLs permanently.

The amount of NOLs that we have claimed has not been audited or otherwise validated by the U.S. Internal Revenue Service (“IRS”). The IRS could challenge our calculation of the amount of our NOLs or our determinations as to when a prior change in ownership occurred, and other provisions of the Internal Revenue Code may limit our ability to carry forward our NOLs to offset taxable income in future years. If the IRS was successful with respect to any such challenge, the potential tax benefit of the NOLs to us could be substantially reduced.

Our relationship with our employees could deteriorate, which could adversely affect our operations.

As a manufacturing company, we rely on our employees and good relations with our employees to produce our products and maintain our production processes and productivity. A significant number of our non-U.S. employees are subject to arrangements similar to collective bargaining arrangements. We have approximately 27% of our combined U.S. employees represented by unions. Our collective bargaining agreement at the Pensacola, Florida, manufacturing facility will expire in July 2017. We may not be able to negotiate existing or future arrangements on satisfactory terms or at all, which may adversely affect our business. If these workers were to engage in a strike, work stoppage or other slowdown, our operations could be disrupted or we could experience higher labor costs, which could adversely affect our business, results of operations, cash flows and financial condition.

In addition, if our other employees were to become unionized, in particular our employees at our Belpre, Ohio, facility, we could experience significant operating disruptions and higher ongoing labor costs, which could adversely affect our business and financial condition and results of operations. Because many of the personnel who operate our European facilities are employees of LyondellBasell, relations between LyondellBasell and its employees may also adversely affect our business, results of operations, cash flows and financial condition.

Loss of key personnel or our inability to attract and retain new qualified personnel could hurt our business and inhibit our ability to operate and grow successfully.

Our success in the highly competitive markets in which we operate will continue to depend to a significant extent on our key employees. We are dependent on the expertise of our executive officers. Loss of the services of any of our executive officers could have an adverse effect on our prospects. We may not be able to retain our key employees or to recruit qualified individuals to join our company. The loss of key employees could result in high transition costs and could disrupt our operations.

We generally do not have long-term contracts with our customers and the loss of customers could adversely affect our sales and profitability.

With some exceptions, our business is based primarily upon individual sales orders with our customers. As such, our customers could cease buying our products from us at any time, for any reason, with little or no recourse. If multiple customers elected not to purchase products from us, our business prospects, financial condition and results of operations could be adversely affected.

A decrease in the fair value of pension assets could materially increase future funding requirements of the pension plans.

We sponsor defined benefit pension plans. The total projected benefit obligation of our defined benefit pension plans exceeded the fair value of the plan assets by approximately \$107.5 million at December 31, 2016. We contributed \$5.1 million to the pension plans in 2016. Among the key assumptions inherent in the actuarially calculated pension plan obligations and pension plan expenses are the discount rate and the expected rate of return on plan assets. If discount rates or actual rates of return on invested plan assets were to decrease, the pension plan obligations could increase materially. The size of future required pension contributions could result in our dedicating a substantial portion of our cash flow from operations to making the contributions, which could materially adversely affect our business, financial condition and results of operations.

Domestic or international natural disasters or terrorist attacks may disrupt our operations, decrease the demand for our products or otherwise have an adverse impact on our business.

Chemical related assets, and U.S. corporations such as ours, may be at a greater risk of future terrorist attacks than other possible targets in the U.S. and throughout the world. Moreover, extraordinary events such as natural disasters may negatively affect local economies, including those of our customers or suppliers. The occurrence of such events cannot be predicted, although they can be expected to continue to adversely impact the economy in general and our specific markets. The resulting damage from such an event could include loss of life, property damage or site closure. Any, or a combination, of these factors could adversely impact our results of operations, financial position and cash flows.

Delaware law and certain provisions of our organizational documents may make a takeover of our company more difficult.

Provisions of our charter and bylaws may have the effect of delaying, deferring or preventing a change in control of our company. A change of control could be proposed in the form of a tender offer or takeover proposal that might result in a premium over the market price for our common stock. In addition, these provisions could make it more difficult to bring about a change in the composition of our board of directors, which could result in entrenchment of current management. For example, our charter and bylaws:

- establish a classified board of directors so that not all members of our board of directors are elected at one time;
- require that the number of directors be determined, and provide that any vacancy or new board seat may be filled only by the board;
- do not permit stockholders to act by written consent;
- do not permit stockholders to call a special meeting;
- permit the bylaws to be amended by a majority of the board without shareholder approval, and require that a bylaw amendment proposed by stockholders be approved by two-thirds of all outstanding shares;
- establish advance notice requirements for nominations for elections to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings; and
- authorize the issuance of undesignated preferred stock, or “blank check” preferred stock, by our board of directors without shareholder approval.

Our Kraton Corporation Executive Severance Program and the equity arrangements with our executive officers also contain change in control provisions. Under the terms of these arrangements, the executive officers are entitled to receive significant cash payments, immediate vesting of options, restricted shares and notional shares, and continued medical benefits in the event their employment is terminated under certain circumstances within one year following a change in control, and with respect to certain equity awards, within two years following a change in control.

Any amounts accrued under the Kraton Polymers LLC Executive Deferred Compensation Plan are immediately payable upon a change of control. We disclose in proxy statements filed with the SEC potential payments to our named executive officers in connection with a change of control. Further, the terms of the indenture governing the 10.5% Senior Notes require us, upon certain change of control transactions, to repurchase our outstanding 10.5% Senior Notes at a price equal to 101.0% of their principal amount, plus any accrued and unpaid interest.

These arrangements and provisions of our organizational documents and Delaware law may have the effect of delaying, deferring or preventing changes of control or changes in management of our company, even if such transactions or changes would have significant benefits for our stockholders. As a result, these provisions could limit the price some investors might be willing to pay in the future for shares of our common stock.

We do not currently pay dividends and may not pay any dividends for the foreseeable future.

We do not currently pay dividends, and we may not pay dividends to our stockholders for the foreseeable future. The terms of the Term Loan Facility, the ABL Facility and the 10.5% Senior Notes limit our ability to pay cash dividends, and we may be subject to other restrictions on our ability to pay dividends from time to time. In addition, because we are a holding company, our ability to pay dividends depends on our receipt of cash dividends and distributions from our subsidiaries. Accordingly, investors must be prepared to rely on sales of their common stock after price appreciation to earn an investment return, which may never occur. Investors seeking cash dividends should not purchase our common stock. Any determination to pay dividends in the future will be made at the discretion of our board of directors and will depend upon our results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law or the SEC and other factors that our board deems relevant.

We are a holding company with nominal net worth and will depend on dividends and distributions from our subsidiaries to pay any dividends.

Kraton Corporation is a holding company with nominal net worth. We do not have any assets or conduct any business operations other than our investments in our subsidiaries, including Kraton Polymers LLC. As a result, our ability to pay dividends, if any, will be dependent upon cash dividends and distributions or other transfers from our subsidiaries. Payments to us by our subsidiaries will be contingent upon their respective earnings and subject to any limitations on the ability of such entities to make payments or other distributions to us. In addition, our subsidiaries are separate and distinct legal entities and have no obligation to make any funds available to us.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our principal executive offices are located at 15710 John F. Kennedy Boulevard, Suite 300, Houston, Texas 77032.

We believe that our properties and equipment are generally in good operating condition and are adequate for our present needs. Production capacity at our sites can vary greatly depending upon feedstock, product mix, and operating conditions. The following table sets forth our manufacturing facilities and principal products:

Polymer Segment

Location	Principal Products	Annual Production Capacity (in kilotons)	Approximate Square Footage	Owned/Leased
Belpre, Ohio	Performance Polymers, Specialty Products, Cariflex	135	3,600,000	Owned (1)
Wesseling, Germany	Performance Polymers	96	354,000	Owned (2)
Berre, France	Performance Polymers, Specialty Products	76	392,000	Owned (2)
Paulinia, Brazil	Cariflex	25	2,220,000	Owned
Kashima, Japan	Performance Polymers	31	395,000	Owned (3)
Mailiao, Taiwan	Specialty Products	30	1,800,000	Leased (4)

Chemical Segment

Location	Principal Products (Upgrades)	Annual CTO Refining Capacity (in kilotons)	Approximate Square Footage	Owned/Leased
Panama City, Florida	Rosin Esters, Dispersions	107	217,626	Owned
Pensacola, Florida	Terpene Resins	—	64,109	Owned
Savannah, Georgia	Resin Esters, Resinates	213	186,125	Owned (5)
Dover, Ohio	Dimer Acids, Polyamides	—	166,824	Owned
Oulu, Finland	Rosin Esters and Soaps	156	167,681	Owned (6)
Niort, France	AMS, Terpene Resins	—	187,405	Owned
Sandarne, Sweden	Rosin Esters, Dispersions	174	378,892	Owned
Gersthofen, Germany	Disproporsins	—	39,116	Owned

- (1) The Belpre facility has approximately 135 kilotons of production capacity to which we are entitled. A portion of the HSBC capacity at the Belpre facility is owned by Infineum USA, a joint venture between Shell Chemicals and ExxonMobil that makes products for the lubricant additives business.
- (2) Our Wesseling and Berre manufacturing facilities are located on LyondellBasell sites. We lease the land, but own the manufacturing facilities and production equipment. We have operating agreements with LyondellBasell for various site services, utilities, materials, and facilities.
- (3) The Kashima manufacturing facility is owned and operated by a 50%-50% joint venture between us and JSR, named Kraton JSR Elastomers K.K. (“KJE”). We are generally entitled to 50% of this production pursuant to our joint venture agreement. JSR markets its portion of the production under its own trademarks, and we market our portion of the production under the Kraton® brand name although this amount may vary from time to time.
- (4) The Mailiao facility is our 50%-50% KFPC joint venture with FPCC and the joint venture leases the land, but owns the manufacturing facility and production equipment. Construction of the plant is mechanically complete with commercial start up expected in the first half of 2017.
- (5) We own our black liquor soap acidulation manufacturing facility located in Savannah. However, this manufacturing facility is located on land that we lease from International Paper. This lease expires on February 28, 2057.
- (6) We own our manufacturing facility located in Oulu. However, this facility is located on land that we lease from Stora Enso Oy. This lease expires on August 31, 2044, with an option to extend the term until August 31, 2095.

Item 3. Legal Proceedings.

In January 2014, our Belpre, Ohio, facility experienced a mechanical equipment failure due to inclement weather that resulted in a release of process solvents into nearby waterways. Applicable authorities were notified, and cleanup activities are complete. Kraton may be required to pay governmental fines or sanctions in excess of \$100,000 in connection with this event.

We and certain of our subsidiaries, from time to time, are parties to various other legal proceedings, claims, and disputes that have arisen in the ordinary course of business. These claims may involve significant amounts, some of which would not be covered by insurance. While the outcome of these proceedings cannot be predicted with certainty, our management does not expect any of these other existing matters, individually or in the aggregate, to have a material adverse effect upon our financial position, results of operations, or cash flows.

For information regarding legal proceedings, including environmental matters, see Note 12 *Commitments and Contingencies* (subsections (b) and (c) of which are incorporated herein by reference) to the consolidated financial statements for further discussion.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

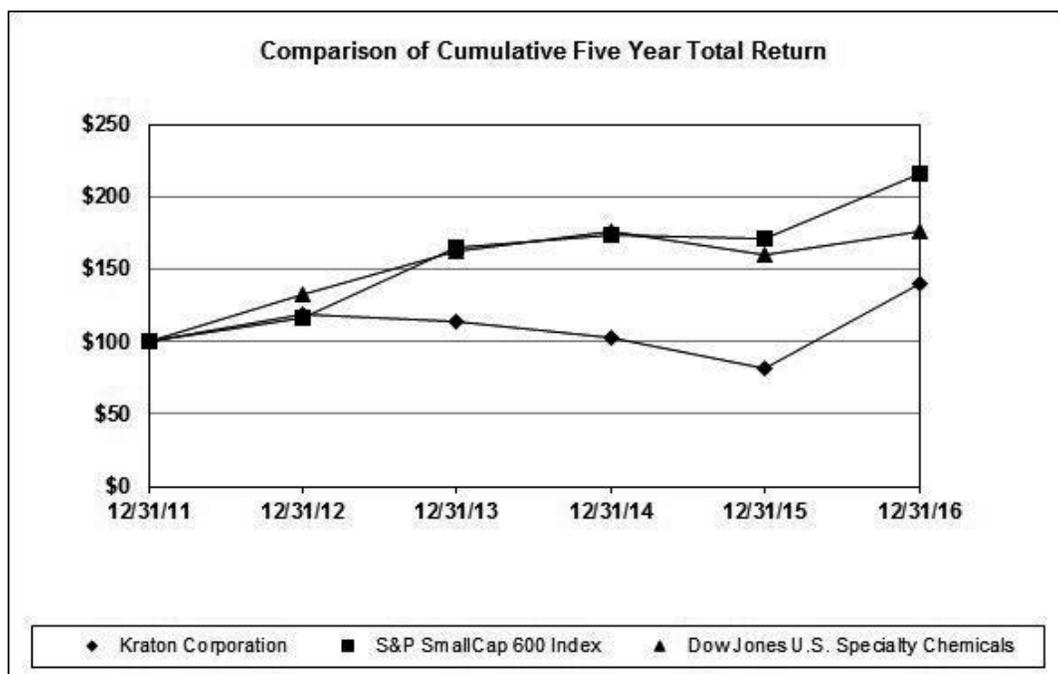
Our common stock is listed on the New York Stock Exchange (“NYSE”) under the symbol “KRA.” The following table sets forth the high and low intraday sales prices of our common stock per share, as reported by the NYSE.

	Stock Price Range	
	High	Low
2016		
Fourth Quarter	\$ 35.64	\$ 24.95
Third Quarter	\$ 37.50	\$ 26.34
Second Quarter	\$ 29.76	\$ 16.62
First Quarter	\$ 17.86	\$ 13.35
2015		
Fourth Quarter	\$ 23.53	\$ 16.51
Third Quarter	\$ 24.31	\$ 16.97
Second Quarter	\$ 25.22	\$ 19.44
First Quarter	\$ 21.35	\$ 18.56

As of February 21, 2017, we had approximately 93 shareholders of record of our common stock and approximately 6,365 beneficial owners.

Stock Performance Graph

The following graph reflects the comparative changes in the value from December 31, 2011 through December 31, 2016, assuming an initial investment of \$100 and the reinvestment of dividends, if any, in (1) our common stock, (2) the S&P SmallCap 600 Index, and (3) the Dow Jones U.S. Specialty Chemicals Index. The information under this caption is not deemed to be “soliciting material” or to be “filed” with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into such a filing. Historical performance should not be considered indicative of future stockholder returns.



Total Return to Shareholders
(Includes reinvestment of dividends)

<i>Company Name / Index</i>	Annual Return Percentage, Years Ending				
	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
Kraton Corporation	18.37%	(4.07)%	(9.81)%	(20.11)%	71.47%
S&P SmallCap 600 Index	16.33%	41.30 %	5.75 %	(1.97)%	26.56%
Dow Jones U.S. Specialty Chemicals	32.23%	22.88 %	8.62 %	(9.79)%	10.54%

<i>Company Name / Index</i>	Cumulative Value of \$100 Investment, through December 31, 2016					
	Base Period 12/31/11	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
Kraton Corporation	\$ 100.00	\$ 118.37	\$ 113.55	\$ 102.41	\$ 81.82	\$ 140.30
S&P SmallCap 600 Index	\$ 100.00	\$ 116.33	\$ 164.38	\$ 173.84	\$ 170.41	\$ 215.67
Dow Jones U.S. Specialty Chemicals	\$ 100.00	\$ 132.23	\$ 162.49	\$ 176.49	\$ 159.22	\$ 176.00

Dividends

We have not previously declared or paid any dividends or distributions on our common stock and have instead deployed earnings to fund the development of our business. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital expenditure requirements, restrictions contained in current and future financing instruments, and other factors that our board of directors deems relevant. Because we are a holding company, our ability to pay dividends depends on our receipt of cash dividends and distributions from our subsidiaries. The terms of the Term Loan Facility, the Asset Based Lending Facility, and the 10.5% Senior Notes due 2023 restrict our ability and the ability of our subsidiaries to pay dividends, as may the terms of any of our future debt or preferred securities.

Item 6. Selected Financial Data.

The selected financial data below should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included under Item 7 of this Form 10-K as well as the consolidated financial statements and the related notes.

	Years Ended December 31,				
	2016	2015	2014	2013	2012
(In thousands, except per share data)					
Consolidated statements of operations data:					
Revenue	\$1,744,104	\$1,034,626	\$1,230,433	\$1,292,121	\$1,423,122
Cost of goods sold	1,265,079	805,970	993,366	1,066,289	1,191,680
Gross profit	479,025	228,656	237,067	225,832	231,442
Operating expenses:					
Research and development	39,491	31,024	31,370	32,014	31,011
Selling, general and administrative	177,625	117,308	104,209	105,558	98,555
Depreciation and amortization	125,658	62,093	66,242	63,182	64,554
Impairment of long-lived assets	—	—	4,731	—	5,434
Operating income	136,251	18,231	30,515	25,078	31,888
Disposition and exit of business activities	28,416	—	—	—	—
Loss on extinguishment of debt	(13,423)	—	—	—	—
Earnings of unconsolidated joint venture ⁽¹⁾	394	406	407	530	530
Interest expense, net	(138,952)	(24,223)	(24,594)	(30,470)	(29,303)
Income (loss) before income taxes	12,686	(5,586)	6,328	(4,862)	3,115
Income tax benefit (expense)	91,954	(6,943)	(5,118)	3,887	(19,306)
Consolidated net income (loss)	104,640	(12,529)	1,210	(975)	(16,191)
Net loss attributable to noncontrolling interest	2,668	1,994	1,209	357	—
Net income (loss) attributable to Kraton	<u>\$ 107,308</u>	<u>\$ (10,535)</u>	<u>\$ 2,419</u>	<u>\$ (618)</u>	<u>\$ (16,191)</u>
Earnings (loss) per common share:					
Basic	\$ 3.48	\$ (0.34)	\$ 0.07	\$ (0.02)	\$ (0.50)
Diluted	\$ 3.43	\$ (0.34)	\$ 0.07	\$ (0.02)	\$ (0.50)
Weighted average common shares outstanding:					
Basic	30,180	30,574	32,163	32,096	31,939
Diluted	30,621	30,574	32,483	32,096	31,939

(1) Represents our 50% joint venture interest in Kraton JSR Elastomers K.K., which is accounted for using the equity method of accounting.

	December 31,				
	2016	2015	2014	2013	2012
(In thousands)					
Consolidated balance sheets data:					
Cash and cash equivalents	\$ 121,749	\$ 70,049	\$ 53,818	\$ 175,872	\$ 223,166
Total assets	\$ 2,906,645	\$ 1,079,235	\$ 1,076,877	\$ 1,194,797	\$ 1,229,189
Total debt	\$ 1,739,525	\$ 415,732	\$ 351,872	\$ 350,989	\$ 448,017
Years Ended December 31,					
	2016	2015	2014	2013	2012
Ratio of Earnings to Fixed Charges ⁽¹⁾	1.05	—	1.11	—	1.02

(1) Our earnings were insufficient to cover our fixed charges by approximately \$9.4 million and \$8.7 million for the years ended December 31, 2015 and 2013, respectively.

EBITDA, Adjusted EBITDA, and Adjusted Diluted Earnings Per Share

We consider EBITDA, Adjusted EBITDA, and Adjusted Diluted Earnings Per Share to be important supplemental measures of our performance and believe they are frequently used by investors, securities analysts, and other interested parties in the evaluation of our performance and/or that of other companies in our industry, including period-to-period comparisons. In addition, management uses these measures to evaluate operating performance, and our incentive compensation plan bases incentive compensation payments on our Adjusted EBITDA performance, along with other factors. EBITDA, Adjusted EBITDA, and Adjusted Diluted Earnings Per Share have limitations as analytical tools and in some cases can vary substantially from other measures of our performance. You should not consider any of them in isolation, or as substitutes for analysis of our results under U.S. generally accepted accounting principles (“U.S. GAAP”).

	Years Ended December 31,		
	2016	2015	2014
	(In thousands, except per share data)		
EBITDA ⁽²⁾	\$ 277,296	\$ 80,730	\$ 97,164
Adjusted EBITDA ⁽¹⁾⁽³⁾	\$ 354,132	\$ 166,817	\$ 147,194
Adjusted Diluted Earnings Per Share ⁽¹⁾	\$ 2.36	\$ 2.02	\$ 1.16

- (1) The majority of our consolidated inventory is measured using the FIFO basis of accounting. As part of our pricing strategy, we measure our business performance using the estimated current replacement cost (“ECRC”) of our inventory and cost of goods sold. Our ECRC is based on our current expectation of the current cost of our significant raw material inputs. ECRC is developed monthly based on actual market-based contracted rates and spot market purchase rates that are expected to occur in the period. We then adjust the value of the significant raw material inputs and their associated impact to finished goods to the current replacement cost to arrive at an ECRC value for inventory and cost of goods sold. The result of this revaluation from the U.S. GAAP carrying value creates the spread between U.S. GAAP and ECRC. We maintain our perpetual inventory in our global enterprise resource planning system, where the carrying value of our inventory is determined. With inventory valued under U.S. GAAP and ECRC, we then have the ability to report cost of goods sold and therefore Adjusted EBITDA and Adjusted Diluted Earnings Per Share under both our U.S. GAAP convention and ECRC.
- (2) On a consolidated basis, EBITDA represents net income before interest, taxes, depreciation and amortization. On a reporting segment basis, EBITDA represents segment operating income before depreciation and amortization, disposition and exit of business activities, loss on extinguishment of debt, and earnings of unconsolidated joint venture. Limitations for EBITDA as an analytical tool include the following:
- EBITDA does not reflect the significant interest expense on our debt;
 - EBITDA does not reflect the significant depreciation and amortization expense associated with our long-lived assets;
 - EBITDA included herein should not be used for purposes of assessing compliance or non-compliance with financial covenants under our debt agreements. The calculation of EBITDA in the debt agreements includes adjustments, such as extraordinary, non-recurring or one-time charges, proforma cost savings, certain non-cash items, turnaround costs, and other items included in the definition of EBITDA in the debt agreements; and
 - other companies in our industry may calculate EBITDA differently than we do, limiting its usefulness as a comparative measure.
- (3) Adjusted EBITDA is EBITDA net of the impact of the spread between the FIFO basis of accounting and ECRC and net of the impact of items we do not consider indicative of our ongoing operating performance. We explain how each adjustment is derived and why we believe it is helpful and appropriate in the reconciliation below. You are encouraged to evaluate each adjustment and the reasons we consider it appropriate for supplemental analysis. As an analytical tool, Adjusted EBITDA is subject to the limitations applicable to EBITDA described above, as well as the following limitations:
- due to volatility in raw material prices, Adjusted EBITDA may, and often does, vary substantially from EBITDA, net income and other performance measures, including net income calculated in accordance with U.S. GAAP; and
 - Adjusted EBITDA may, and often will, vary significantly from EBITDA calculations under the terms of our debt agreements and should not be used for assessing compliance or non-compliance with financial covenants under our debt agreements.

Because of these and other limitations, EBITDA and Adjusted EBITDA should not be considered as a measure of discretionary cash available to us to invest in the growth of our business.

Our presentation of non-GAAP financial measures and the adjustments made therein should not be construed as an inference that our future results will be unaffected by unusual or non-recurring items, and in the future we may incur expenses or charges similar to the adjustments made in the presentation of our non-GAAP financial measures.

We compensate for the above limitations by relying primarily on our U.S. GAAP results and using EBITDA, Adjusted EBITDA, and Adjusted Diluted Earnings Per Share only as supplemental measures. See our financial statements included under Item 8 of this Form 10-K.

We reconcile each of consolidated net income (loss) and reporting segment operating income to EBITDA, and then to Adjusted EBITDA as follows:

	Year Ended December 31, 2016			Year Ended December 31, 2015			Year Ended December 31, 2014		
	Polymer	Chemical	Total	Polymer	Chemical	Total	Polymer	Chemical	Total
(In thousands)									
Net income (loss) attributable to Kraton			\$ 107,308			\$ (10,535)			\$ 2,419
Net loss attributable to noncontrolling interest			(2,668)			(1,994)			(1,209)
Consolidated net income (loss)			104,640			(12,529)			1,210
<i>Add (deduct):</i>									
Income tax expense (benefit)			(91,954)			6,943			5,118
Interest expense, net			138,952			24,223			24,594
Earnings of unconsolidated joint venture			(394)			(406)			(407)
Loss on extinguishment of debt			13,423			—			—
Disposition and exit of business activities			(28,416)			—			—
Operating income	\$ 77,891	\$ 58,360	136,251	\$ 18,231	\$ —	18,231	\$ 30,515	\$ —	30,515
<i>Add (deduct):</i>									
Depreciation and amortization	59,930	65,728	125,658	62,093	—	62,093	66,242	—	66,242
Disposition and exit of business activities	32,776	(4,360)	28,416	—	—	—	—	—	—
Loss on extinguishment of debt	(13,423)	—	(13,423)	—	—	—	—	—	—
Earnings of unconsolidated joint venture	394	—	394	406	—	406	407	—	407
EBITDA (non-GAAP)	157,568	119,728	277,296	80,730	—	80,730	97,164	—	97,164
<i>Add (deduct):</i>									
Transaction, acquisition related costs, restructuring and other costs (a)	25,035	8,529	33,564	22,575	—	22,575	12,538	—	12,538
Disposition and exit of business activities (b)	(32,776)	4,360	(28,416)	—	—	—	—	—	—
Loss on extinguishment of debt	13,423	—	13,423	—	—	—	—	—	—
Effect of purchase price accounting on inventory valuation (c)	—	24,719	24,719	—	—	—	—	—	—
Retirement plan charges (d)	—	—	—	792	—	792	399	—	399
Impairment of long-lived assets (e)	—	—	—	—	—	—	4,731	—	4,731
Impairment of spare parts inventory (f)	—	—	—	—	—	—	430	—	430
Production downtime (g)	—	—	—	(593)	—	(593)	10,291	—	10,291
KFPC startup costs (h)	6,179	—	6,179	3,640	—	3,640	1,911	—	1,911
Non-cash compensation expense (i)	8,334	—	8,334	9,015	—	9,015	10,475	—	10,475
Spread between FIFO and ECRC	5,324	13,709	19,033	50,658	—	50,658	9,255	—	9,255
Adjusted EBITDA (non-GAAP)	\$ 183,087	\$ 171,045	\$ 354,132	\$ 166,817	\$ —	\$ 166,817	\$ 147,194	\$ —	\$ 147,194

- (a) Charges related to the evaluation of acquisition transactions, severance expenses, and other restructuring related charges, which are recorded primarily in selling, general, and administrative expenses.
- (b) Includes \$38.2 million gain on sale of BCU, \$3.2 million gain on disposition of joint venture, \$4.4 million loss on exit of our Solution Resinates product line, and \$8.6 million loss of exit of our NEXAR product line.
- (c) Higher costs of goods sold for our Chemical segment related to the fair value adjustment in purchase accounting for their inventory.
- (d) Charges associated with the termination of the defined benefit restoration pension plan, which are primarily recorded in selling, general, and administrative expenses.
- (e) The charge recognized in 2014 includes \$2.4 million related to engineering and design assets for projects we determined were no longer economically viable, \$1.4 million related to information technology and office assets associated with restructuring activities, and \$0.9 million related to other long-lived assets.
- (f) Impairment of spare parts inventory associated with the coal-burning boilers which were decommissioned in 2015 which is recorded in cost of goods sold.
- (g) In 2015, the reduction in costs is due to insurance recoveries related to the Belpre production downtime, which are primarily recorded in cost of goods sold. In 2014, weather-related production downtime at our Belpre, Ohio, facility and an operating disruption from a small fire at our Berre, France, facility, of which \$9.9 million is recorded in cost of goods sold and \$0.4 million is recorded in selling, general, and administrative expenses.
- (h) Startup costs related to the joint venture company, KFPC, which are recorded in selling, general, and administrative expenses.
- (i) Represents non-cash expense related to equity compensation plans. In 2016, \$7.1 million, \$0.7 million, and \$0.5 million, in 2015, \$7.8 million, \$0.7 million and \$0.5 million, and in 2014, \$9.0 million, \$0.9 million, and \$0.6 million were recorded in selling, general, and administrative expenses, research and development expenses, and cost of goods sold, respectively.

We reconcile U.S. GAAP Diluted Earnings (Loss) Per Share to Adjusted Diluted Earnings Per Share as follows:

	Years Ended December 31,		
	2016	2015	2014
Diluted Earnings (Loss) Per Share	\$ 3.43	\$ (0.34)	\$ 0.07
Transaction, acquisition related costs, restructuring, and other costs (a)	0.90	0.72	0.37
Disposition and exit of business activities (b)	(0.59)	—	—
Loss on extinguishment of debt	0.27	—	—
Retirement plan charges (c)	—	0.03	0.01
Impairment of long-lived assets (d)	—	—	0.14
Impairment of spare parts inventory (e)	—	—	0.01
Production downtime (f)	—	(0.02)	0.31
Effect of purchase price accounting on inventory valuation (g)	0.63	—	—
KFPC startup costs (h)	0.08	0.05	0.02
Valuation allowance (i)	(2.75)	—	(0.05)
Spread between FIFO and ECRC	0.39	1.58	0.28
Adjusted Diluted Earnings Per Share (non-GAAP)	\$ 2.36	\$ 2.02	\$ 1.16

- (a) Employee severance, professional fees and other restructuring related charges which are primarily recorded in selling, general, and administrative expenses. Charges related to the evaluation of acquisition transactions which are recorded in selling, general, and administrative expenses. In 2015, charges are primarily related to the Arizona Chemical Acquisition. In 2014, charges are primarily related to the terminated Combination Agreement with LCY.
- (b) Includes \$38.2 million gain on sale of BCU, \$3.2 million gain on disposition of joint venture, \$4.4 million loss on exit of our Solution Resinates product line, and \$8.6 million loss of exit of our NEXAR product line.
- (c) Charges associated with the termination of the defined benefit restoration pension plan, which are primarily recorded in selling, general, and administrative expenses.
- (d) The charge recognized in 2014 includes \$2.4 million related to engineering and design assets for projects we determined were no longer economically viable, \$1.4 million related to information technology and office assets associated with fourth quarter restructuring activities, and \$0.9 million related to other long-lived assets.
- (e) Impairment of spare parts inventory associated with the coal-burning boilers which were decommissioned in 2015 which is recorded in cost of goods sold.
- (f) In 2015, the reduction in costs is due to insurance recoveries related to the Belpre production downtime, which are primarily recorded in cost of goods sold. In 2014, weather-related production downtime at our Belpre, Ohio, facility and an operating disruption from a small fire at our Berre, France, facility, of which \$9.9 million is recorded in cost of goods sold and \$0.4 million is recorded in selling, general and administrative expenses.
- (g) Higher costs of goods sold for our Chemical segment related to the fair value adjustment in purchase accounting for their inventory.
- (h) Startup costs related to the joint venture company, KFPC, which are recorded in selling, general, and administrative expenses.
- (i) Income tax benefit related to a portion of the change in our valuation allowance for deferred tax assets.

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

INTRODUCTION

Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with Item 8. Financial Statements and Supplementary Data. This discussion contains forward-looking statements and involves numerous risks and uncertainties, including, but not limited to those described in Item 1A. Risk Factors and below under the caption "Factors Affecting Our Results of Operations." Actual results may differ materially from those contained in any forward-looking statements.

OVERVIEW

We are a leading global specialty chemicals company that manufactures styrenic block copolymers ("SBCs") and other engineered polymers. Effective with the January 6, 2016 acquisition of Arizona Chemical (the "Arizona Chemical Acquisition"), we are now also a leading global producer of value-added specialty products primarily derived from pine wood pulping co-products. Commensurate with the Arizona Chemical Acquisition, Arizona Chemical became a separate operating segment and since such date our operations have been managed through two operating segments: (i) Polymer segment and (ii) Chemical segment. Operating results for the Chemical segment are included in the accompanying consolidated financial statements since the date of acquisition.

Polymer Segment

SBCs are highly-engineered synthetic elastomers, which we invented and commercialized over 50 years ago. We developed the first unhydrogenated styrenic block copolymers ("USBC") in 1964 and the first hydrogenated styrenic block copolymers ("HSBC") in the late 1960s. Our SBCs enhance the performance of numerous products by imparting greater flexibility, resilience, strength, durability, and processability, and are used in a wide range of applications, including adhesives, coatings, consumer and personal care products, sealants, lubricants, medical, packaging, automotive, paving, roofing, and footwear products. We also sell isoprene rubber ("IR") and isoprene rubber latex ("IRL"), which are non-SBC products primarily used in applications such as medical products, personal care, adhesives, tackifiers, paints, and coatings.

Our polymers are typically formulated or compounded with other products to achieve improved, customer-specific performance characteristics in a variety of applications. We seek to maximize the value of our product portfolio by emphasizing complex or specialized polymers and innovations that yield higher margins than more commoditized products. We sometimes refer to these complex or specialized polymers or innovations as being more "differentiated."

Our products are found in many everyday applications, including personal care products, such as disposable diapers, and in the rubberized grips of toothbrushes, razor blades, and power tools. Our products are also used to impart tack and shear properties in a wide variety of adhesive products and to impart characteristics such as flexibility and durability in sealants and corrosion resistance in coatings. Our paving and roofing applications provide durability, extending road and roof life.

We also produce Cariflex™ isoprene rubber and isoprene rubber latex. Our Cariflex products are based on synthetic polyisoprene polymer and do not contain natural rubber latex or other natural rubber products making them an ideal substitute for natural rubber latex, particularly in applications with high purity requirements such as medical, healthcare, personal care, and food contact. We believe the versatility of Cariflex provides opportunities for new, differentiated applications.

We have a portfolio of innovations at various stages of development and commercialization, including

- polyvinyl chloride alternatives for medical applications;
- polymers for soft skin and coated fabric applications for transportation and consumer markets;
- high melt flow polymers for compounding and adhesives formulation; and
- synthetic cement formulations and polymers used for viscosity modification in oilfield applications.

Chemical Segment

We manufacture and sell high value products primarily derived from pine wood pulping co-products. We refine and further upgrade two primary feedstocks, crude tall oil (“CTO”) and crude sulfate turpentine (“CST”), both of which are co-products of the wood pulping process, into value-added specialty chemicals. We refine CTO through a distillation process into four primary constituent fractions: tall oil fatty acids (“TOFA”); tall oil rosin (“TOR”); distilled tall oil (“DTO”); and tall oil pitch. We further upgrade TOFA, TOR, and DTO into derivatives such as dimer acids, polyamide resins, rosin resins, dispersions, and disproportionated resins. We refine CST into terpene fractions, which can be further upgraded into terpene resins. The various fractions and derivatives resulting from our CTO and CST refining process provide for distinct functionalities and properties, determining their respective applications and end markets.

We focus our resources on four product groups: adhesives; roads and construction; tires; and chemical intermediates. Within our product groups, our products are sold into a diverse range of submarkets, including packaging, tapes and labels, pavement marking, high performance tires, fuel additives, oilfield and mining, coatings, metalworking fluids and lubricants, inks, and flavor and fragrances, among others.

While this business is based predominantly on the refining and upgrading of CTO and CST, we have the capacity to use both hydrocarbon-based raw materials, such as alpha-methyl-styrene, rosins, and gum rosins where appropriate and, accordingly, are able to offer tailored solutions for our customers.

Our Chemical segment has a portfolio of innovations at various stages of development and commercialization, including:

- adhesive tackifiers designed to enable the use of a higher amount of recycled content in packaging materials;
- high solid adhesive dispersions for labels and tapes that allow for higher coating speeds, which lower process energy costs;
- heat stable rheology ink resins that reduce formulation complexity for ink manufacturers while improving ink performance;
- high performance tire tread resins that promote wet grip, fuel economy, and tire life;
- fuel lubricity improvers that ensure low sulfur targets for diesel fuel can be met;
- bitumen additives for the asphalt paving market that enable high recycled content in asphalt mixes; and
- insoluble maleic rosin esters used in pavement marking binders that provide thermal oxidation resistance.

Status of Synergies, Operational Improvement, and Cost Reduction Initiatives

We previously announced synergies and operational improvement initiatives associated with the Arizona Chemical Acquisition and a cost reduction initiative targeted at lowering costs in our Polymer segment. Following is a summary of the status of these initiatives:

	Years Ended December 31,		Incremental '15 to '16	Incremental '14 to '15	Cumulative(1)
	2016	2015			
	(In thousands)				
G&A synergies	\$ 17,663	\$ —	\$ 17,663	\$ —	\$ 17,663
Operational improvements	19,223	—	19,223	—	19,223
Cost reduction	31,338	19,388	11,950	19,388	31,338
	<u>\$ 68,224</u>	<u>\$ 19,388</u>	<u>\$ 48,836</u>	<u>\$ 19,388</u>	<u>\$ 68,224</u>

RESULTS OF OPERATIONS

Factors Affecting Our Results of Operations

Raw Materials. We use butadiene, styrene, and isoprene (also referred to as “monomers”) as our primary raw materials in our Polymer segment and CTO and CST in our Chemical segment in manufacturing our products and our results of operations are directly affected by the cost of these raw materials. On a FIFO basis, these raw materials together represented approximately \$531.1 million, \$385.2 million, and \$512.8 million, or 42.0%, 47.8%, and 51.6%, of our total cost of goods sold for the years ended December 31, 2016, 2015, and 2014, respectively. Since the cost of our raw materials comprise a significant amount of our total cost of goods sold, our selling prices for our products and therefore our total revenue is impacted by movements in our raw material costs, as well as the cost of other inputs. The cost of these raw materials has generally correlated with changes in energy prices and is generally influenced by supply and demand factors and for our isoprene monomers the prices for natural and synthetic rubber. Average purchase prices of our raw materials decreased during 2016 compared to 2015 and were lower in 2015 compared to 2014.

We use the FIFO basis of accounting for inventory and cost of goods sold, and therefore gross profit. In periods of raw material price volatility, reported results under FIFO will differ from what the results would have been if cost of goods sold were based on ECRC. Specifically, in periods of rising raw material costs, reported gross profit will be higher under FIFO than under ECRC. Conversely, in periods of declining raw material costs, reported gross profit will be lower under FIFO than under ECRC. In recognition of the fact that the cost of raw materials affects our results of operations and the comparability of our results of operations, we provide the difference, or spread, between FIFO and ECRC. For the years ended December 31, 2016, 2015, and 2014, reported results under FIFO were lower than results would have been on an ECRC basis by \$19.0 million, \$50.7 million, and \$9.3 million, respectively.

International Operations and Currency Fluctuations. We operate a geographically diverse business, serving customers in numerous countries from thirteen manufacturing facilities on four continents. Our sales and production costs are mainly denominated in U.S. dollars, Euro, Japanese Yen, Swedish Krona, and Brazilian Real. From time to time, we use hedging strategies to reduce our exposure to currency fluctuations.

Our financial results are subject to gains and losses on currency translations, which occur when the financial statements of foreign operations are translated into U.S. dollars. The financial statements of operations outside the U.S. where the local currency is considered to be the functional currency are translated into U.S. dollars using the exchange rate at each balance sheet date for assets and liabilities and the average exchange rate for each period for revenue, expenses, gains and losses, and cash flows. The effect of translating the balance sheet into U.S. dollars is included as a component of accumulated other comprehensive income (loss). Any appreciation of the functional currencies against the U.S. dollar will increase the U.S. dollar equivalent of amounts of revenue, expenses, gains and losses, cash flows, and any depreciation of the functional currencies will decrease the U.S. dollar amounts reported. Our results of operations are also subject to currency transaction risk. We incur currency transaction risk when we enter into either a purchase or sale transaction using a currency other than the local currency of the transacting entity. The impact from currency fluctuations amounted to a pre-tax loss of \$7.9 million, a pre-tax loss of \$9.8 million, and a pre-tax income of \$0.4 million for the years ended December 31, 2016, 2015, and 2014, respectively.

We generated our revenue from customers located in the following regions:

Revenue by Geography	Years Ended December 31,		
	2016	2015	2014
Americas	43.1%	38.4%	38.9%
Europe, Middle East, and Africa	34.3%	33.1%	36.4%
Asia Pacific	22.6%	28.5%	24.7%

Seasonality. Seasonal changes and weather conditions typically affect our sales of products in our paving, pavement markings, roofing, and construction applications, which generally results in higher sales volumes in the second and third quarters of the calendar year compared to the first and fourth quarters of the calendar year. Sales for our other product applications tend to show relatively little seasonality.

KRATON CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Years Ended December 31,		
	2016	2015	2014
Revenue	\$ 1,744,104	\$ 1,034,626	\$ 1,230,433
Cost of goods sold	1,265,079	805,970	993,366
Gross profit	479,025	228,656	237,067
Operating expenses:			
Research and development	39,491	31,024	31,370
Selling, general, and administrative	177,625	117,308	104,209
Depreciation and amortization	125,658	62,093	66,242
Impairment of long-lived assets	—	—	4,731
Operating income	136,251	18,231	30,515
Disposition and exit of business activities	28,416	—	—
Loss on extinguishment of debt	(13,423)	—	—
Earnings of unconsolidated joint venture	394	406	407
Interest expense, net	(138,952)	(24,223)	(24,594)
Income (loss) before income taxes	12,686	(5,586)	6,328
Income tax benefit (expense)	91,954	(6,943)	(5,118)
Consolidated net income (loss)	104,640	(12,529)	1,210
Net loss attributable to noncontrolling interest	2,668	1,994	1,209
Net income (loss) attributable to Kraton	\$ 107,308	\$ (10,535)	\$ 2,419
Earnings (loss) per common share:			
Basic	\$ 3.48	\$ (0.34)	\$ 0.07
Diluted	\$ 3.43	\$ (0.34)	\$ 0.07
Weighted average common shares outstanding:			
Basic	30,180	30,574	32,163
Diluted	30,621	30,574	32,483

Consolidated Results

Year Ended December 31, 2016 Compared to Year Ended December 31, 2015

Our operating results for the year ended December 31, 2016 include the operating results for Arizona Chemical since the acquisition date of January 6, 2016.

Revenue was \$1,744.1 million for the year ended December 31, 2016 compared to \$1,034.6 million for the year ended December 31, 2015, an increase of \$709.5 million, or 68.6%, of which \$719.4 million relates to our Chemical segment.

Cost of goods sold was \$1,265.1 million for the year ended December 31, 2016 compared to \$806.0 million for the year ended December 31, 2015, an increase of \$459.1 million, or 57.0%, of which \$515.0 million relates to our Chemical segment. Our Chemical segment results includes the negative effect of \$24.7 million related to the full amortization of the fair value adjustment in purchase accounting for inventory, which was fully amortized during the year ended December 31, 2016. The Polymer segment cost of goods sold decreased \$55.9 million, largely driven by a \$67.9 million decrease in raw material costs and a \$41.7 million reduction in other manufacturing costs (including a \$3.3 million decrease in turnaround costs), partially offset by a \$43.6 million increase related to higher sales volumes and a \$10.2 million negative effect from currency fluctuations.

Gross profit was \$479.0 million for the year ended December 31, 2016 compared to \$228.7 million for the year ended December 31, 2015. The increase includes gross profit of \$204.4 million from our Chemical segment, which includes the negative effect of \$24.7 million related to the full amortization of the fair value adjustment in purchase accounting for inventory.

Research and development expenses were \$39.5 million for the year ended December 31, 2016 compared to \$31.0 million for the year ended December 31, 2015, an increase of \$8.5 million, or 27.3%, of which \$11.2 million relates to our Chemical segment.

Selling, general, and administrative expenses were \$177.6 million for the year ended December 31, 2016 compared to \$117.3 million for the year ended December 31, 2015, an increase of \$60.3 million, or 51.4%, of which \$69.1 million relates to our Chemical segment. Selling, general, and administrative expenses for our Polymer segment decreased \$8.8 million, primarily driven by lower staffing costs.

Depreciation and amortization was \$125.7 million for the year ended December 31, 2016 compared to \$62.1 million for the year ended December 31, 2015, an increase of \$63.6 million, or 102.4%, of which \$65.7 million relates to our Chemical segment and includes the step up to fair value of the acquired long-lived assets.

Disposition and exit of business activities were \$28.4 million for the year ended December 31, 2016, which resulted from the exit of our NEXARTM and solution resins product lines, the dissolution of our joint venture in Paulinia, Brazil, and the sale of the Belpre, Ohio, compounding unit (the "BCU").

Loss on extinguishment of debt was \$13.4 million for the year ended December 31, 2016, of which \$8.4 million was recognized to satisfy and cancel our 6.75% Senior Notes due 2019 and \$5.0 million was related to the write-off of previously capitalized debt issuance costs, following the Arizona Chemical Acquisition.

Interest expense, net was \$139.0 million for the year ended December 31, 2016 compared to \$24.2 million for the year ended December 31, 2015, an increase of \$114.7 million. The increase is primarily due to additional indebtedness related to the Arizona Chemical Acquisition.

Income tax benefit was \$92.0 million and income tax expense was \$6.9 million for the year ended December 31, 2016 and 2015, respectively. Given the level of our pre-tax book income for the year ended December 31, 2016 and the release of a significant portion of our valuation allowance (as further discussed below), our effective tax rate for the year ended December 31, 2016 is not meaningful. Our effective tax rate for the year ended December 31, 2015 was a 124.3% expense. Our effective tax rates differ from the U.S. corporate statutory tax rate of 35.0% primarily due to the mix of our pretax income or loss generated in foreign jurisdictions, permanent items, uncertain tax positions, and changes in our valuation allowances. For the year ended December 31, 2016, our pretax earnings in the Netherlands, Sweden, and Finland decreased our effective tax rate due to the local statutory rates of 25%, 22%, and 20%, respectively. During the year ended December 31, 2015, our pretax earnings in the Netherlands decreased our effective tax rate as the statutory rate is 25% and losses generated in Taiwan increased our effective tax rate as the statutory rate is 17%.

We record a valuation allowance when it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. As of December 31, 2016 and December 31, 2015, a valuation allowance of \$44.7 million and \$100.1 million, respectively, has been provided for net operating loss carryforwards and other deferred tax assets. During the year ended December 31, 2016, we released \$55.5 million of the valuation allowances, of which \$87.0 million primarily related to our U.S. net operating loss carryforwards and other deferred tax assets, partially offset by \$31.3 million of new valuation allowances

assumed in connection with the Arizona Chemical Acquisition. As of December 31, 2016, \$30.5 million and \$8.5 million of the \$44.7 million valuation allowance relates to net deferred tax assets in France and United Kingdom, respectively. We increased our valuation allowance by \$9.7 million in 2015, which includes \$13.9 million related to current period net operating losses in the U.S. jurisdiction, partially offset by a \$2.7 million decrease related to the tax effect of unrealized pension gains, and a \$1.5 million decrease related to changes in other comprehensive income (loss). As of December 31, 2015, \$87.9 million of the \$100.1 million valuation allowance relates to net deferred tax assets in the U.S. We consider the reversal of deferred tax liabilities within the net operating loss carryforward period, projected future taxable income and tax planning strategies in making this assessment. Excluding the change in our valuation allowance, our effective tax rates would have been a benefit of 38.9% and 75.4% for the years ended December 31, 2016 and 2015, respectively.

Net income attributable to Kraton was \$107.3 million, or \$3.43 per diluted share, for the year ended December 31, 2016, an increase of \$117.8 million compared to a net loss of \$10.5 million, or \$0.34 per diluted share, for the year ended December 31, 2015. Adjusted diluted earnings per share (non-GAAP) was \$2.36 for the year ended December 31, 2016 compared to \$2.02 for the year ended December 31, 2015. See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP diluted earnings (loss) per share to adjusted diluted earnings per share.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Revenue was \$1,034.6 million for the year ended December 31, 2015 compared to \$1,230.4 million for the year ended December 31, 2014, a decrease of \$195.8 million, or 15.9%. The negative effect of currency movements accounted for \$89.1 million of the decline. The remaining decline was due to lower average selling prices amounting to \$112.2 million primarily driven by lower average raw material costs, partially offset by \$5.5 million due to higher sales volumes. Sales volumes were 306.5 kilotons for the year ended December 31, 2015 compared to 305.6 kilotons for the year ended December 31, 2014.

Cost of goods sold was \$806.0 million for the year ended December 31, 2015, a decline of \$187.4 million, or 18.9%, compared to \$993.4 million for the year ended December 31, 2014. The decline was due to lower raw material costs of \$96.0 million, changes in foreign currency exchange rates of \$74.0 million, and \$12.4 million from the implementation of our previously announced cost reduction initiatives. In addition, cost of goods sold in 2014 included \$10.4 million of costs associated with production downtime at two of our facilities. These decreases were partially offset by \$5.4 million of higher other manufacturing costs.

Gross profit was \$228.7 million for the year ended December 31, 2015 compared to \$237.1 million for the year ended December 31, 2014. Gross profit as a percentage of revenue was 22.1% and 19.3% for the years ended December 31, 2015 and 2014, respectively.

Research and development expenses were \$31.0 million for the year ended December 31, 2015 compared to \$31.4 million for the year ended December 31, 2014. The \$0.4 million decrease includes \$2.8 million of savings from the implementation of our previously announced cost reduction initiatives, largely offset by higher variable employee compensation and other operating costs.

Selling, general, and administrative expenses were \$117.3 million for the year ended December 31, 2015 compared to \$104.2 million for the year ended December 31, 2014, an increase of \$13.1 million, or 12.6%. This increase was primarily due to an \$11.3 million increase in transaction and acquisition related costs, a \$7.2 million increase in employee related expenses, primarily variable compensation expense, and a \$2.3 million increase in other professional fees. These increases were partially offset by a \$3.9 million positive effect from currency fluctuations and a \$4.1 million reduction from the implementation of our previously announced cost reduction initiatives.

Depreciation and amortization was \$62.1 million for the year ended December 31, 2015 compared to \$66.2 million for the year ended December 31, 2014, a decrease of \$4.1 million, of which \$2.6 million was due to changes in foreign currency.

The \$4.7 million impairment of long-lived assets in 2014 included \$2.4 million related to engineering and design assets for projects we determined were no longer economically viable, \$1.4 million related to information technology and office assets arising from restructuring activities, and \$0.9 million related to other long-lived assets. We did not incur any impairment charges for the year ended December 31, 2015.

Interest expense, net was \$24.2 million for the year ended December 31, 2015 compared to \$24.6 million for the year ended December 31, 2014, a decrease of \$0.4 million, or 1.5%.

Income tax expense was \$6.9 million and \$5.1 million for the years ended December 31, 2015 and 2014, respectively. Our effective tax rate was 124.3% and 80.9% for the years ended December 31, 2015 and 2014, respectively. Our effective tax rates differed from the U.S. corporate statutory tax rate of 35.0%, primarily due to the mix of pre-tax income or loss earned in foreign jurisdictions and losses generated in the U.S. tax jurisdiction for which a full valuation allowance has been provided, as well as uncertain tax positions. See Note 11 *Income Taxes*, for further information.

We record a valuation allowance when it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. As of December 31, 2015 and December 31, 2014, a valuation allowance of \$100.1 million and \$90.4 million, respectively, has been provided for net operating loss carryforwards and other deferred tax assets. We increased our valuation allowance by \$9.7 million in 2015, which includes \$13.9 million related to current period net operating losses in the U.S. jurisdiction, partially offset by a \$2.7 million decrease related to the tax effect of unrealized pension gains, and a \$1.5 million decrease related to changes in other comprehensive income (loss). We increased our valuation allowance by \$0.4 million in 2014, which includes a \$9.8 million increase related to changes in other comprehensive income (loss), partially offset by a \$7.6 million decrease related to current year operating income and a \$1.8 million decrease related to the assessment of our ability to utilize net operating loss carryforwards in future periods. We consider the reversal of deferred tax liabilities within the net operating loss carryforward period, projected future taxable income and tax planning strategies in making this assessment. Excluding the change in our valuation allowance, our effective tax rates would have been a 75.4% benefit and a 229.0% expense for the years ended December 31, 2015 and 2014, respectively. As of December 31, 2015, \$87.9 million of the \$100.1 million valuation allowance is associated with net deferred tax assets in the U.S. jurisdiction.

We project that we will have sufficient combined pre-tax earnings in the U.S. to fully utilize net operating loss carryforwards within a reasonable projection period. Under ASC 805-740-30-3, the release of an acquirer's existing valuation allowance resulting from an acquisition is recognized as an adjustment to the financial statements as of the acquisition date. As a result, we expect to release the valuation allowance related to the U.S. net deferred tax assets in 2016.

Net loss attributable to Kraton was \$10.5 million, or \$0.34 per diluted share, for the year ended December 31, 2015, a decrease of \$13.0 million, compared to net income of \$2.4 million, or \$0.07 per diluted share, for the year ended December 31, 2014. Adjusted diluted earnings per share (non-GAAP) was \$2.02 in 2015 compared to \$1.16 in 2014. See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP diluted earnings (loss) per share to adjusted diluted earnings per share.

Segment Results

Effective with the Arizona Chemical Acquisition our operating segments are as follows:

- *Polymer Segment.* Our Polymer segment is comprised of our SBC's and other engineered polymers business.
- *Chemical Segment.* Our Chemical segment is comprised of our pine-based specialty products business.

Polymer Segment

	Years Ended December 31,		
	2016	2015	2014
Revenue	(In thousands)		
Performance Products	\$ 513,081	\$ 540,615	\$ 678,930
Specialty Polymers	340,330	350,689	412,435
Cariflex	170,983	142,904	138,596
Other	343	418	472
	<u>\$ 1,024,737</u>	<u>\$ 1,034,626</u>	<u>\$ 1,230,433</u>
Adjusted EBITDA (non-GAAP) ⁽¹⁾	\$ 183,087	\$ 166,817	\$ 147,194

(1) See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP operating income to non-GAAP Adjusted EBITDA.

Year Ended December 31, 2016 Compared to Year Ended December 31, 2015

Revenue for the Polymer segment was \$1,024.7 million for the year ended December 31, 2016 compared to \$1,034.6 million for the year ended December 31, 2015. Lower average selling prices amounting to \$88.3 million, primarily driven by portfolio mix, lower average raw material costs, and lower prices for certain SIS product grades, which was partially offset by an increase of \$75.5 million due to higher sales volumes and changes in foreign currency exchange rates of \$2.9 million. Sales volumes were 324.2 kilotons for the year ended December 31, 2016, an increase of 17.7 kilotons, or 5.8%.

With respect to revenue for the Polymer segment product groups:

- *Cariflex*TM revenue was \$171.0 million for the year ended December 31, 2016 compared to \$142.9 million for the year ended December 31, 2015. The increase of \$28.1 million was attributable to a 19.3% increase in sales volumes, primarily due to higher sales into surgical glove applications, and changes in foreign currency of \$5.3 million, partially offset by a \$5.1 million decrease attributable to lower average selling prices resulting from lower raw material costs.
- *Specialty Polymers* revenue was \$340.3 million for the year ended December 31, 2016 compared to \$350.7 million for the year ended December 31, 2015, a decrease of \$10.4 million. Excluding the \$9.9 million effect of the sale of BCU, revenue was essentially unchanged. Revenue associated with a 6.9% increase in sales volume, primarily into automotive and consumer applications, was essentially offset by the impact of lower average selling prices associated with product mix and to a lesser extent lower raw material cost. Changes in currency exchange rates had a \$1.5 million negative effect on revenue.
- *Performance Products* revenue was \$513.1 million for the year ended December 31, 2016 compared to \$540.6 million for the year ended December 31, 2015. The \$27.5 million decline was primarily driven by a lower average selling prices of \$50.7 million, resulting from lower prices for certain SIS product grades, product mix, and raw material costs, partially offset by a 4.3% increase in sales volumes. The increase in sales volumes was primarily driven by paving, roofing, and personal care applications, partially offset by lower sales of SIS product grades into packaging and industrial adhesive applications. Changes in foreign currency exchange rates had a \$0.8 million negative effect on revenue.

For the year ended December 31, 2016, the Polymer segment operating income was \$77.9 million compared to \$18.2 million for the year ended December 31, 2015.

For the year ended December 31, 2016, the Polymer segment generated \$183.1 million of Adjusted EBITDA (non-GAAP) compared to \$166.8 million for the year ended December 31, 2015, an increase of \$16.3 million, or 9.8%. The effect of currency fluctuations negatively impacted Adjusted EBITDA (non-GAAP) by \$6.5 million. See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP operating income to non-GAAP Adjusted EBITDA.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Revenue for the Polymer segment was \$1,034.6 million for the year ended December 31, 2015 compared to \$1,230.4 million for the year ended December 31, 2014, a decrease of \$195.8 million, or 15.9%. The negative effect of currency movements accounted for \$89.1 million of the decline. The remaining decline was due to lower average selling prices amounting to \$112.2 million primarily driven by lower average raw material costs, partially offset by \$5.5 million due to higher sales volumes. Sales volumes were 306.5 kilotons for the year ended December 31, 2015 compared to 305.6 kilotons for the year ended December 31, 2014.

With respect to revenue for each of our product groups:

- *Cariflex*TM revenue was \$142.9 million for the year ended December 31, 2015 compared to \$138.6 million for the year ended December 31, 2014, an increase of \$4.3 million, or 3.1%. *Cariflex* sales volumes increased 10.2% compared to the year ended December 31, 2014, driven primarily by higher sales into surgical glove applications. Higher sales volume, amounting to \$14.5 million, was partially offset by a \$7.7 million negative effect from currency fluctuations and \$2.5 million associated with lower selling prices primarily resulting from lower raw material costs.
- *Specialty Polymers* revenue was \$350.7 million for the year ended December 31, 2015 compared to \$412.4 million for the year ended December 31, 2014, a decline of \$61.7 million, or 15.0%. The negative effect of currency fluctuations accounted for \$19.6 million of the decline. The remaining decline reflects a \$27.4 million impact from lower average selling prices primarily related to lower raw material costs and \$14.8 million due to a 3.4% decline in sales volumes. The decline in sales volume was largely due to lower sales into lubricant additive applications associated with inventory reduction measures by a significant customer, and, to a lesser extent, lower sales into personal care applications. Partially offsetting these declines were higher sales into medical, cable gel and consumer applications.
- *Performance Products* revenue was \$540.6 million for the year ended December 31, 2015 compared to \$678.9 million for the year ended December 31, 2014, a decline of \$138.3 million, or 20.4%. The decline includes a \$61.8 million negative effect of currency fluctuations. The remaining decline was due to lower average selling prices primarily resulting from lower raw material costs. Sales volume increased modestly, despite the previously disclosed seven kilotons of lost production at our Wesseling and Berre facilities in the second quarter 2015. The

increase in sales volume was driven by higher sales into North American paving applications and personal care applications, largely offset by lower sales into adhesives and roofing applications.

For the year ended December 31, 2015, the Polymer segment operating income was \$18.2 million compared to \$30.5 million for the year ended December 31, 2014.

For the year ended December 31, 2015, the Polymer segment generated \$166.8 million of Adjusted EBITDA (non-GAAP) compared to \$147.2 million for the year ended December 31, 2014, an increase of \$19.6 million, or 13.3%. See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP operating income to non-GAAP Adjusted EBITDA.

Chemical Segment

The following results of operations for the Chemical segment have been included in our consolidated results effective as of the date of the acquisition, January 6, 2016.

Revenue	For the period January 6, 2016 through December 31, 2016	
	(In thousands)	
Adhesives	\$	246,411
Roads and construction		48,938
Tires		42,478
Chemical intermediates		381,540
	<u>\$</u>	<u>719,367</u>
Adjusted EBITDA (non-GAAP) ⁽¹⁾	\$	171,045

(1) See *Item 6. Selected Financial Data* for a reconciliation of U.S. GAAP operating income to non-GAAP Adjusted EBITDA.

Critical Accounting Policies

The preparation of these financial statements in conformity with U.S. GAAP requires management to make assumptions and estimates that directly affect the amounts reported in the consolidated financial statements. Certain critical accounting policies requiring significant judgments, estimates, and assumptions are described in this section. We consider an accounting estimate to be critical if it requires assumptions to be made that are uncertain at the time the estimate is made and changes to the estimate or different estimates that could have reasonably been used would have materially changed our consolidated financial statements.

We believe the current assumptions and other considerations used to estimate amounts reflected in our consolidated financial statements are appropriate. However, should our actual experience differ from these assumptions and other considerations used in estimating these amounts, the impact of these differences could have a material impact on our consolidated financial statements.

Inventories. Inventory values include all costs directly associated with manufacturing products and are stated at the lower of cost or market, primarily determined on a first-in, first-out basis. We evaluate the carrying cost of our inventory on a quarterly basis for this purpose. If the cost of the inventories exceeds their market value, provisions are made for the difference between the cost and the market value.

Impairment of Long-Lived Assets. In accordance with the Impairment or Disposal of Long-Lived Assets Subsections of FASB ASC Subtopic 360-10, *Property, Plant, and Equipment—Overall*, long-lived assets, such as property, plant, and equipment, and purchased intangible assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, we first compare undiscounted cash flows expected to be generated by that asset or asset group to its carrying value. If the carrying value of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, impairment is recognized to the extent that the carrying value exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values, and third-party independent appraisals, as considered necessary.

Goodwill. We record goodwill when the purchase price of an acquired business exceeds the fair value of the net identifiable assets acquired. Goodwill is allocated to the reporting unit level based on the estimated fair value at the date of acquisition. We have two reporting units, our Polymer and Chemical operating segments.

Goodwill is tested for impairment at the reporting unit level annually or more frequently as deemed necessary. Our annual measurement date for testing impairment is October 1st. We completed a qualitative assessment (step zero), to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If it is more likely than not that an impairment exists utilizing the qualitative method, we then estimate the fair value of our reporting units utilizing an income approach through the application of discounted cash flows. The assessment is performed in two steps: step one to test for a potential impairment of goodwill and, if potential impairments are identified, step two to measure the impairment loss through a full fair value allocation of the assets and liabilities of the reporting unit utilizing the acquisition method of accounting.

Asset Retirement Obligations (“ARO”). Our ARO consists of estimated costs of dismantlement, removal, site reclamation, and similar activities associated with our facilities. We recognize the fair value of a liability for an ARO in the period in which we have an existing legal obligation associated with the retirement of our facilities and the obligation can reasonably be estimated. The associated asset retirement cost is capitalized as part of the carrying cost of the asset. The recognition of an ARO requires that we make numerous estimates, assumptions, and judgments regarding such factors as the existence of a legal obligation for an ARO; estimated probabilities, amounts and timing of settlements; the credit-adjusted risk-free rate to be used; discount rate; and inflation rates. In periods subsequent to initial measurement of the ARO, we recognize changes in the liability resulting from the accretion of the liability to its non-discounted amount and revisions to either the timing or the amount of the original estimate of undiscounted cash flows. Revisions also result in increases or decreases in the carrying cost of these assets. Increases in the ARO liability due to accretion is charged to depreciation and amortization expense. The related capitalized cost, including revisions thereto, is charged to depreciation and amortization expense. See Note 12 *Commitments and Contingencies* (subsection (d)) to the consolidated financial statements.

Share-Based Compensation. Share-based compensation cost is measured at the grant date based on the fair value of the award. We recognize these costs using the straight-line method over the requisite service period. The Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (the “Equity Plan”) allows for the grant to key employees, independent contractors, and eligible non-employee directors of incentive stock options, non-qualified stock options (which together with the incentive stock options, are referred to herein as (“options”)), stock appreciation rights, restricted stock awards, and restricted stock units, in addition to other equity or equity-based awards (including performance-based awards) as our board determines from time to time. We estimate the fair value of stock options using the Black-Scholes valuation model. Our estimated volatility is based on a combination of our historical volatility and similar companies’ stock that are publicly traded.

The expected term of options represents the period of time that options granted are expected to be outstanding. We used the simplified method to calculate the expected term of options. The risk free interest rate for the periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. The dividend yield is assumed to be zero based on historical and expected dividend activity. Forfeitures are based substantially on the history of cancellations of similar awards granted in prior years. See Note 5 *Share-Based Compensation* to the consolidated financial statements.

Income Taxes. We conduct operations in separate legal entities in different jurisdictions. As a result, income tax amounts are reflected in our consolidated financial statements for each of those jurisdictions.

Income taxes are recorded utilizing an asset and liability approach. This method gives consideration to the future tax consequences associated with the differences between the financial accounting and tax basis of the assets and liabilities as well as the ultimate realization of any deferred tax asset resulting from such differences. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. In determining whether a valuation allowance is required, the company evaluates primarily (a) the impact of cumulative losses in past years and (b) current and/or recent losses. A recent trend in earnings despite cumulative losses is a prerequisite to considering not recording a valuation allowance.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. We consider the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, we believe it is more likely than not that we will realize the benefits of these deductible differences, net of the existing valuation allowances.

Benefit Plans Valuations. We sponsor defined benefit pension plans in both the U.S. and non-U.S. entities (“Pension Plans”, as well as a post-retirement benefit plan in the U.S. (“Retiree Medical Plan”). We annually evaluate significant assumptions related to the benefits and obligations of these plans. Our estimation of the projected benefit obligations and related benefit expense requires that certain assumptions be made regarding such variables such as expected return on plan assets, discount rates, rates of future compensation increases, estimated future employee turnover rates and retirement dates, distribution election rates, mortality rates, retiree utilization rates for health care services, and health care cost trend rates. The determination of the appropriate assumptions requires considerable judgment concerning future events and has a significant impact on the amount of the obligations and expense recorded. We rely in part on actuarial studies when determining the appropriateness of certain of the assumptions used in determining the benefit obligations and the annual expenses for these plans.

The discount rates are determined annually and are based on rates of return of high-quality long-term fixed income securities currently available with maturities consistent with the projected benefit payout period. The expected long-term rate of return on assets is derived from a review of anticipated future long-term performance of individual asset classes and consideration of an appropriate asset allocation strategy, given the anticipated requirements of the Pension Plans, to determine the average rate of earnings expected on the funds invested to provide for the pension plan benefits. We also consider recent fund performance and historical returns in establishing the expected rate of return. We estimated a range of returns on the plan assets using a historical stochastic simulation model that determines the compound average annual return (assuming these asset classes—stocks, bonds and cash) over a 20-year historical period (the approximate duration of our liabilities under the Pension Plans). The distribution of results from these simulations is then used to determine a median expected asset return.

Movements in the capital markets impact the market value of the investment assets used to fund our Pension Plans. Future changes in plan asset returns, assumed discount rates, and various other factors related to our pension and post-retirement plans will impact future pension expenses and liabilities.

The weighted average discount rate for our U.S. pension plans was 4.3% at December 31, 2016 compared to 4.6% at December 31, 2015, with an assumed weighted average long term expected rate of return on plan assets of 8.4%, and an assumed weighted average expected salary rate increase of 3.0%. The percentage of equity securities in our U.S. pension plans was 53.8% at December 31, 2016, down from 57.1% at December 31, 2015, and the percentage of debt securities was 36.8% at December 31, 2016, up from approximately 33.5% at December 31, 2015. Our strategic target asset allocation as of December 31, 2016 was 50% equity, 30% debt, and 20%. Based on the plan’s current target asset allocation, the median estimate for future asset returns (before non-investment expenses) was 8.9%. The asset return assumption set for determining the 2016 FASB ASC 715 expense was 8.4%, after non-investment expenses paid by the Trust. For the past three years, non-investment related expenses have averaged 0.5%. Therefore, the 8.4% return after non-investment expenses assumption is equivalent to a gross assumption of 8.9% (8.4% + 0.5%). A 8.9% rate (before non-investment expenses) falls within an acceptable range of simulated asset returns, between the 40th and 60th percentile.

The weighted average discount rate for our non-U.S. pension plans was 2.4% at December 31, 2016, with an assumed weighted average long term expected rate of return on plan assets of 4.1%, and an assumed weighted average expected salary rate increase of 2.8%. The percentage of equity and debt securities in our non-U.S. pension plans was 28.9% and 30.4% at December 31, 2016, respectively. Our strategic target asset allocation as of December 31, 2016 was 50% equity, 40% debt, and 10% other for our non-U.S. Pension Plans.

For the U.S. Pension Plans, a 100 basis point decrease in the assumed discount rate would result in a corresponding increase of \$2.9 million in our estimated Pension Plans expense for 2017. A 100 basis point decrease in the assumed rate of return on plan assets would result in a corresponding increase of \$1.0 million, and a 100 basis point increase in the expected salary rate would result in a corresponding increase of \$1.1 million in expenses for 2017, in each case holding all other assumptions and factors constant.

For the Chemical non-U.S. Pension Plans, a 100 basis point decrease in the assumed discount rate would result in a corresponding increase of \$1.1 million in our estimated Pension Plans expense for 2017. A 100 basis point decrease in the assumed rate of return on plan assets would result in a corresponding increase of \$0.8 million, and a 100 basis point increase in the expected salary rate would result in a corresponding increase of \$0.2 million in expenses for 2017, in each case holding all other assumptions and factors constant.

For the Retiree Medical Plan, a 100 basis point decrease in the assumed discount rate would result in a corresponding increase of \$0.4 million in our estimated expense and a 100 basis point increase in the assumed health care trend rate would result in a corresponding increase of \$0.1 million in our estimated expense for 2017, in each case holding all other assumptions and factors constant. For additional information about our benefit plans, See Note 13 *Employee Benefits* to the consolidated financial statements.

Revenue Recognition. Sales are recognized in accordance with the provisions of ASC 605, *Revenue Recognition—Overall*, when the revenue is realized or realizable, and has been earned. Revenue for product sales is recognized when risk and title to the product transfer to the customer. Our products are generally sold free on board shipping point or, with respect to countries other than the U.S., an equivalent basis. As such, title to the product passes when the product is delivered to the freight carrier. Our standard terms of delivery are included in our contracts of sale, order confirmation documents, and invoices. Shipping and other transportation costs charged to customers are recorded in both revenue and cost of goods sold. We have entered into agreements with some of our customers whereby they earn rebates from us when the volume of their purchases of our product reach certain agreed upon levels. We recognize the rebate obligation ratably, as a reduction of revenue.

LIQUIDITY AND CAPITAL RESOURCES

Senior Secured Term Loan Facility. In January 2016, Kraton Polymers LLC entered into a senior secured term loan facility in an aggregate principal amount equal to \$1,350.0 million that matures on January 6, 2022 (as amended, the "Term Loan Facility"). Subject to compliance with certain covenants and other conditions, we have the option to borrow up to \$350.0 million of incremental term loans plus an additional amount subject to a senior secured net leverage ratio.

On January 9, 2017, Kraton Corporation (the "Parent") entered into a Second Amendment to Credit and Guarantee Agreement (the "Amendment"), amending the Credit and Guarantee Agreement, dated as of January 6, 2016, among Kraton Polymers LLC (the "Borrower"), the Parent, certain subsidiaries of the Borrower, as Guarantors, and Credit Suisse AG, Cayman Islands Branch, as Administrative Agent and Collateral Agent (as amended, the "Term Loan Facility"). Pursuant to the Amendment, Deutsche Bank served as the Replacement Term Lender as such term is defined in the Amendment. The Amendment decreased the interest rate on approximately \$1.278 billion of existing term loans under the Term Loan Facility to LIBOR plus 4.00% and reset the period during which a prepayment premium may be required for a "Repricing Event" (as defined in the Credit and Guarantee Agreement) until six months after the effective date of the Amendment.

Borrowings under the Term Loan Facility bear interest at a rate per annum equal to an applicable margin, plus, at our option, either (a) an adjusted LIBOR rate (subject to a 1.0% floor) determined by reference to the costs of funds for U.S. dollar deposits for the interest period relevant to such borrowing adjusted for statutory reserve requirements or (b) an alternate base rate (subject to a 2.0% floor) determined by reference to the highest of (1) the prime rate of Credit Suisse AG, (2) the federal funds effective rate plus 0.5% and (3) the one month adjusted LIBOR rate plus 1.0% per annum. In addition, we are required to pay customary agency fees. As of the date of this filing, the effective rate on the Term Loan Facility was 5.0% comprised of the 1.0% LIBOR floor plus a 4.0% applicable margin, which is a 1.0% reduction in our effective interest rate due to the Second Amendment to Credit and Guarantee Agreement entered on January 9, 2017.

We used the \$72.0 million received from the sale of the compounding assets to prepay our scheduled principal payments under the Term Loan Facility through the second quarter of 2017. As a result, our next scheduled quarterly principal payment under the Term Loan Facility, at 5.0%, is not due until the third quarter of 2017, continuing thereafter, with the balance expected to be due and payable in full on January 6, 2022. Voluntary prepayments on the Term Loan Facility may be made without premium or penalty other than customary "breakage" costs with respect to LIBOR loans and other than a 1.0% premium in connection with certain repricing transactions consummated within a certain period of time after the closing of the Term Loan Facility or subsequent repricing. In the event we have consolidated excess cash flow for any fiscal year, we are required to prepay an amount of borrowings under the Term Loan Facility equal to at least 50% of such cash flow by the 90th day after the end of the fiscal year. The prepayment percentage is reduced to 25% if our senior secured net leverage ratio is under 2.5:1.0 or 0% if our senior secured net leverage ratio is below 2.0:1.0.

The Term Loan Facility is a senior secured obligation that is guaranteed by Kraton Corporation and certain of our wholly-owned domestic subsidiaries. The Term Loan Facility contains a number of customary affirmative and negative covenants. These covenants include a senior secured net leverage ratio which shall not exceed, as of the last day of any fiscal quarter, 4.00:1.00 through March 31, 2017, which will decrease to 3.75:1.00 through March 31, 2018, 3.50:1.00 through March 31, 2019, and 3.25:1.00 thereafter. As of the date of this filing, we were in compliance with the covenants under the Term Loan Facility.

10.5% Senior Notes due 2023. Kraton Polymers LLC and its wholly-owned financing subsidiary Kraton Polymers Capital Corporation issued \$440.0 million aggregate principal amount of 10.5% senior notes that mature on April 15, 2023 (the "10.5% Senior Notes"). The 10.5% Senior Notes are general unsecured, senior obligations and are unconditionally guaranteed on a senior unsecured basis by Kraton Corporation and certain of its wholly-owned domestic subsidiaries, other than the issuers. We pay interest on the notes at 10.5% per annum, semi-annually in arrears on April 15 and October 15 of each year, and paid the first interest payment on October 14, 2016. Prior to October 15, 2018, we may redeem up to 40.0% of the aggregate principal amount of the 10.5% Senior Notes with the net proceeds of certain equity offerings at a redemption price equal to 110.5% of the principal amount of the 10.5% Senior Notes plus accrued and unpaid interest, if any, to the date of redemption. After October 15, 2018, 2019, 2020, and 2021 and thereafter, we may redeem all or a part of the 10.5% Senior Notes for 107.875%, 105.250%, 102.625%, and 100.0% of the principal amount, respectively.

ABL Facility. In January 2016, we entered into an amended and restated asset-based revolving credit facility that provides financing of up to \$250.0 million (the "ABL Facility"). The ABL Facility is primarily secured by receivables and inventory, and borrowing availability under the ABL Facility is subject to borrowing base limitations based on the level of receivables and inventory available for security. Revolver commitments under the ABL Facility consist of U.S. and Dutch revolving credit facility commitments, and the terms of the ABL Facility require the U.S. revolver commitment comprises at least 60.0% of the commitments under the ABL Facility.

The ABL Facility provides that we have the right at any time to request up to \$100.0 million of additional commitments under this facility, provided that we satisfy additional conditions described in the credit agreement and provided further that the U.S. revolver commitment comprises at least 60.0% of the commitments after giving effect to such increase. We cannot guarantee that all of the lending counterparties contractually committed to fund a revolving credit draw request will actually fund future requests, although we currently believe that each of the counterparties would meet their funding requirements. The ABL Facility terminates on January 6, 2021; however, we may, from time to time, request that the lenders extend the maturity of their commitments; provided that at no time shall there be more than four different maturity dates under the ABL Facility.

Borrowings under the ABL Facility bear interest at a rate per annum equal to the applicable margin plus (1) a base rate determined by reference to the prime rate of Bank of America, N.A. in the jurisdiction where the currency is being funded or (2) LIBOR for loans that bear interest based on LIBOR. The initial applicable margin for borrowings under our ABL Facility is 0.5% with respect to U.S. base rate borrowings and 1.5% with respect to LIBOR or borrowings made on a European base rate. The applicable margin ranges from 0.5% to 1.0% with respect to U.S. base rate borrowings and 1.5% to 2.0% for LIBOR or borrowings made on a European base rate per annum based on the average excess availability for the prior fiscal quarter. In addition to paying interest on outstanding principal amounts under the ABL Facility, we are required to pay a commitment fee in respect of the unutilized commitments at an annual rate of 0.375%.

The ABL Facility contains a financial covenant requiring us to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0 if availability under the ABL Facility is below a specified amount. Our failure to comply with this financial covenant would give rise to a default under the ABL Facility. If factors arise that negatively impact our profitability, we may not be able to satisfy this covenant. In addition, the ABL Facility contains customary events of default, including, without limitation, a failure to make payments under the ABL Facility, cross-default with respect to other indebtedness and cross-judgment default, if certain bankruptcy events and certain change of control events were to occur. If we are unable to satisfy the covenants or other provisions of the ABL Facility at any future time, we would need to seek an amendment or waiver of such covenants or other provisions. The respective lenders under the ABL Facility may elect not to consent to any amendment or waiver requests that we may make in the future, and, if they do consent, they may do so on terms that are not favorable to us. In the event that we are unable to obtain any such waiver or amendment and we are not able to refinance or repay our ABL Facility, our inability to meet the covenants or other provisions of the ABL Facility would constitute an event of default, which would permit the bank lenders to accelerate the ABL Facility. Such acceleration may in turn constitute an event of default under our Term Loan Facility, 10.5% Senior Notes, or other indebtedness. As of the date of this filing, we were in compliance with the covenants under the ABL Facility.

KFPC Loan Agreement. On July 17, 2014, KFPC executed a syndicated loan agreement (the “KFPC Loan Agreement”) in the amount of 5.5 billion New Taiwanese Dollars (“NTD”), or \$170.8 million (converted at the December 31, 2016 exchange rate), to provide additional funding to construct the HSBC facility in Taiwan and to provide funding for working capital requirements and/or general corporate purposes.

The KFPC Loan Agreement is comprised of a NTD 4.3 billion Tranche A, or \$133.2 million (converted at the December 31, 2016 exchange rate), to fund KFPC’s capital expenditures, and a NTD 1.2 billion Tranche B, or \$37.6 million (converted at the December 31, 2016 exchange rate), to fund working capital requirements and/or general corporate purposes. As of December 31, 2016, NTD 3.7 billion, or \$115.9 million (converted at the December 31, 2016 exchange rate) was drawn and outstanding on the KFPC Loan Agreement. The facility period of the KFPC Loan Agreement is five years from January 17, 2015 (the first drawdown date). KFPC may continue to draw on the loan agreement for the first 28 months following the first drawdown date. Subject to certain conditions, KFPC can request a two-year extension of the term of the KFPC Loan Agreement.

The total outstanding principal amount is payable in six semi-annual installments with the first payment of \$11.6 million due on July 17, 2017 and each subsequent payment due every six months thereafter. The first five installments shall be in an amount equal to 10% of the outstanding principal amount and the final installment shall be in an amount equal to the remaining 50% of the outstanding principal amount. In the event the extension period is granted, the final 50% of the outstanding principal amount shall be repaid in five equal semi-annual installments with the first installment due on the original final maturity date.

The KFPC Loan Agreement is subject to a variable interest rate composed of a fixed 0.8% margin plus the three-month or six-month fixing rate of the Taipei Interbank Offered Rate (depending on the interest period selected by KFPC in the drawdown request or the interest period notice), subject to a floor of 1.7%. Interest is payable on a monthly basis.

The KFPC Loan Agreement contains certain financial covenants which change during the term of the KFPC Loan Agreement. The financial covenants include a maximum debt to equity ratio of 2.0 to 1.0 in 2017 and 1.2 to 1.0 in 2018 and a minimum tangible net worth requirement of \$50.0 million through 2018, which will increase to \$100.0 million in 2019. Due to a waiver received from the majority of lenders we are no longer subject to a minimum interest coverage ratio in 2016 and our

minimum interest coverage ratio requirement is 5.0 to 1.0 commencing in 2017. In each case, these covenants are calculated and tested on an annual basis. Formosa Petrochemical Corporation and Kraton Polymers LLC are the guarantors of the KFPC Loan Agreement with each guarantor guaranteeing 50.0% of the indebtedness. At December 31, 2016, KFPC was in compliance with the covenants under the KFPC Loan Agreement.

Known Trends and Uncertainties

Kraton Corporation is a holding company without any operations or assets other than the operations of its subsidiaries. Cash flows from operations of our subsidiaries, cash on hand, and available borrowings under the Term Loan Facility and ABL Facility are our principal sources of liquidity.

Based upon current and anticipated levels of operations, we believe that cash flows from operations of our subsidiaries, cash on hand, and borrowings available to us will be sufficient to fund our expected financial obligations, planned capital expenditures, and anticipated liquidity requirements, including working capital requirements, our investment in the KFPC joint venture, debt payments, interest payments, benefit plan contributions, and income tax obligations.

Our cash flows are subject to a number of risks and uncertainties, including, but not limited to, earnings, sensitivities to the cost of raw materials, seasonality and fluctuations in foreign currency exchange rates. Because feedstock costs generally represent a substantial portion of our cost of goods sold, in periods of rising feedstock costs, we generally consume cash in operating activities due to increases in accounts receivable and inventory costs, partially offset by increased value of accounts payable. Conversely, during periods in which feedstock costs are declining, we generate cash flow from decreases in working capital.

There can be no assurance that our business will generate sufficient cash flow from operations or that future borrowings will be available under the Term Loan Facility and the ABL Facility (the "Senior Secured Credit Facilities") or any new credit facilities or financing arrangements to fund liquidity needs and enable us to service our indebtedness. As of the date of this filing, we did not have borrowings under the Senior Secured Credit Facilities and our available borrowing capacity was \$204.0 million. Our available cash and cash equivalents are held in accounts managed by third-party financial institutions and consist of cash invested in interest bearing funds and operating accounts. To date, we have not experienced any losses or lack of access to our invested cash or cash equivalents; however, we cannot provide any assurance that adverse conditions in the financial markets will not impact access to our invested cash and cash equivalents.

We made contributions of \$5.1 million to our pension plans for the year ended December 31, 2016 and \$1.8 million for the year ended December 31, 2015. We expect our total pension plans contribution for the year ended December 31, 2017 to be approximately \$12.7 million. Our pension plan obligations are predicated on a number of factors, the primary ones being the return on our pension plan assets and the discount rate used in deriving our pension obligations. If the investment return on our pension plan assets does not meet or exceed expectations during 2017, and the discount rate decreases from the prior year, higher levels of contributions could be required in 2018 and beyond.

As of December 31, 2016, we had \$115.3 million of cash and short-term investments related to foreign operations that management asserts are permanently reinvested. As a result of net operating loss carryforwards, management estimates that approximately \$2.3 million of additional cash tax expense would be incurred if this cash were repatriated as a result of the net operating loss carryforwards in the U.S.

Turbulence in U.S. and international markets and economies may adversely affect our liquidity and financial condition, the liquidity and financial condition of our customers, and our ability to timely replace maturing liabilities and access the capital markets to meet liquidity needs, resulting in adverse effects on our financial condition and results of operations. However, to date we have been able to access borrowings available to us in amounts sufficient to fund liquidity needs.

Our ability to pay principal and interest on our indebtedness, fund working capital, to make anticipated capital expenditures, and to fund our investment in the KFPC joint venture depends on our future performance, which is subject to general economic conditions and other factors, some of which are beyond our control. See *Part I, Item 1A. Risk Factors* for further discussion.

Operating Cash Flows

Net cash provided by operating activities totaled \$138.5 million for the year ended December 31, 2016 and \$103.8 million for the year ended December 31, 2015. This represents a net increase of \$34.6 million, which was primarily driven by increases in operating income and changes in working capital. The net change in working capital was a use of cash flows of \$3.7 million in 2016 compared to a source of cash of \$46.1 million in 2015, a period-over-period decrease in cash flows of \$49.8 million. The period-over-period changes are as follows:

- \$44.7 million decrease in cash flows for other payables and accruals primarily due to the timing of payments related to transaction related costs;

- \$21.3 million decrease in cash flows associated with inventories of products, materials, and supplies, due to higher raw material costs in our Polymer segment, partially offset by lower inventory volumes in our Polymer and Chemical segments; and
- \$4.9 million decrease in cash flows due to the timing of payments of other items, including accounts receivable, related party transactions, taxes, and pension costs; partially offset by a
- \$21.1 million increase in cash flows associated with trade accounts payable due to higher raw material costs in our Polymer segment and timing of payments.

Net cash provided by operating activities totaled \$103.8 million for the year ended December 31, 2015 and \$29.9 million for the year ended December 31, 2014. This represents a net decrease of \$74.0 million, which was primarily driven by changes in working capital. The net change in working capital provided cash of \$46.1 million in 2015 compared to a use of cash of \$53.2 million in 2014; a period-over-period decline in cash flows of \$99.3 million. The period-over-period changes are as follows:

- \$63.4 million decrease in cash flows associated with inventories of products, materials, and supplies, due to a decrease in inventory volumes for the year ended December 31, 2015 compared to an increase in inventory volumes for the year ended December 31, 2014. In addition, cash flows associated with inventories increased as a result of declining costs of raw material and finished goods inventories for the year ended December 31, 2015;
- \$27.5 million increase in cash flows associated with trade accounts payable primarily due to the timing of payments; and
- \$8.4 million net decrease in cash flows due to the timing of payments of other items, including accounts receivable, related party transactions, taxes and pension costs.

Investing Cash Flows

Net cash used in investing activities totaled \$1,364.8 million, \$128.7 million and \$114.4 million for the years ended December 31, 2016, 2015, and 2014, respectively. Cash used from investing activities for the year ended December 31, 2016, includes \$1,312.1 million related to the Arizona Chemical Acquisition, net of cash acquired, partially offset by \$72.8 million cash received from the sale of the BCU.

Capital projects in 2016 included the following:

- \$20.4 million of capital expenditures incurred by KFPC in connection with the Taiwan plant construction;
- \$24.8 million related to projects to optimize the production capabilities of our manufacturing assets;
- \$59.8 million related to health, safety, environmental, and security, including infrastructure and maintenance projects; and
- \$9.4 million of capital expenditures related to information technology and research and development.

Capital projects in 2015 included the following:

- \$69.1 million of capital expenditures incurred by KFPC in connection with the Taiwan plant construction;
- \$23.6 million related to projects to optimize the production capabilities of our manufacturing assets, which includes \$9.5 million to comply with the MACT rule; and
- \$18.4 million related to health, safety, and environmental, including infrastructure and maintenance projects.

Expected Capital Expenditures

We currently expect 2017 capital expenditures, excluding expenditures by the KFPC joint venture, will be approximately \$85.0 million to \$95.0 million. Included in this estimate is approximately \$29.0 million for projects associated with our cost reset initiative, \$8.0 million for projects to achieve operational synergies related to the integration of Arizona Chemical, and \$45.0 million to \$50.0 million for health, safety, environmental, and security and infrastructure and maintenance projects. The remaining anticipated 2017 capital expenditures are primarily associated with projects to optimize the production capabilities of our manufacturing assets, to support our innovation platform, and to upgrade our information technology systems.

Subject to finalizing all aspects of construction, the total KFPC joint venture project construction cost will not exceed our previous estimate of \$180.0 million; of which, 2016 capital expenditures were \$20.4 million. The project has been funded with a combination of equity and debt financing. From the inception of the project to December 31, 2016, we and FPCC have each made equity investments of \$41.6 million to KFPC. See —*KFPC Loan Agreement* above.

Financing Cash Flows and Liquidity

Our consolidated capital structure as of December 31, 2016 was approximately 19.7% equity, 78.9% debt, and 1.4% noncontrolling interest compared to approximately 43.7% equity, 52.1% debt, and 4.2% noncontrolling interest as of December 31, 2015.

In connection with the Arizona Chemical Acquisition, we issued a \$1,350.0 million Term Loan Facility and \$440.0 million of 10.5% Senior Notes. In addition, we utilized \$37.1 million of the ABL Facility at closing of the Arizona Chemical Acquisition. We applied a portion of the acquisition-related proceeds to prepay our 6.75% Senior Notes (\$350.0 million principal amount plus fees and expenses of \$8.0 million) and fund \$57.6 million of debt issuance costs.

Since the date of the Arizona Chemical Acquisition (excluding borrowings under the KFPC Loan Agreement) we repaid approximately \$107.7 million of indebtedness, while increasing cash on hand (excluding KFPC cash) by approximately \$10.2 million.

Net cash provided by financing activities totaled \$1,280.1 million for the year ended December 31, 2016 compared to net cash used in financing activities of \$47.1 million and \$24.4 million for the years ended December 31, 2015 and 2014, respectively. In 2015, the KFPC joint venture drew \$80.1 million on the KFPC Loan Agreement for construction funding and we incurred cash outflows of \$31.3 million for repurchases of shares of our common stock as part of our share repurchase program approved in October 2014. In 2014, we repurchased \$18.7 million in shares of our common stock as part of our share repurchase program approved in October 2014.

Other Contingencies

As a chemicals manufacturer, our operations in the U.S. and abroad are subject to a wide range of environmental laws and regulations at the international, national, state, and local levels. These laws and regulations govern, among other things, air emissions, wastewater discharges, the use, handling, and disposal of hazardous materials and wastes, occupational health and safety, including dust and noise control, site remediation programs, and chemical registration, use and management.

Pursuant to these laws and regulations, our facilities are required to obtain and comply with a wide variety of environmental permits and authorizations for different aspects of their operations. Generally, many of these environmental laws and regulations are becoming increasingly stringent, and the cost of compliance with these various requirements can be expected to increase over time.

In connection with our separation from Shell Chemical in February 2001, Shell Chemicals agreed to indemnify us for specific categories of environmental claims brought with respect to matters occurring before the separation. However, the indemnity from Shell Chemicals is subject to dollar and time limitations. Coverage under the indemnity also varies depending upon the nature of the environmental claim, the location giving rise to the claim and the manner in which the claim is triggered. Therefore, if claims arise in the future related to past operations, we cannot give assurances that those claims will be covered by the Shell Chemicals' indemnity and also cannot be certain that any amounts recoverable will be sufficient to satisfy claims against us.

In connection with International Paper's divestiture of Arizona Chemical in February 2007, International Paper provided an indemnity to the buyer for specific known environmental liabilities and other environmental liabilities pertaining to former properties. At the closing of the Arizona Chemical Acquisition, Kraton was assigned the right to International Paper's indemnity for such environmental liabilities and assumed certain related obligations. Certain liabilities may fall outside the scope of the indemnity and therefore we cannot be certain that the indemnity will be sufficient to satisfy all environmental liabilities of Arizona Chemical.

In addition, we may in the future be subject to claims that arise solely from events or circumstances occurring after February 2001 for legacy Kraton manufacturing sites or after February 2007 for legacy Arizona Chemical manufacturing sites, which would not, in any event, be covered by the Shell Chemicals or International Paper indemnities, respectively. While we recognize that we may in the future be held liable for remediation activities beyond those identified to date, at present we are not aware of any circumstances that are reasonably expected to give rise to remediation claims that would have a material adverse effect on our results of operations or cause us to exceed our projected level of anticipated capital expenditures.

Except for the foregoing, we currently estimate that any expenses incurred in maintaining compliance with environmental laws and regulations will not materially affect our results of operations or cause us to exceed our level of anticipated capital expenditures. However, we cannot give assurances unknown contingencies may not arise or that regulatory requirements or permit conditions will not change, and we cannot predict the aggregate costs of additional measures that may be required to maintain compliance as a result of such changes or expenses.

We had no material operating expenditures for environmental fines, penalties, government imposed remedial or corrective actions during the years ended December 31, 2016, 2015, or 2014.

Off-Balance Sheet Arrangements

We are not a party to any material off-balance sheet arrangements as of December 31, 2016, other than operating leases.

Contractual Obligations

Our principal outstanding contractual obligations relate to the Term Loan Facility, Senior Notes, KFPC Loan Agreement, interest payments, the operating leases of some of our facilities, the minimum purchase obligations required under our KFPC joint venture agreement and other agreements, and the feedstock contracts with LyondellBasell and others to provide us with raw materials. The following table summarizes our contractual cash obligations as of December 31, 2016 for the periods indicated.

	Payments Due by Period						2022 and beyond
	Total	2017	2018	2019	2020	2021	
	(In millions)						
Long-term debt obligations	\$ 1,836.9	\$ 41.8	\$ 91.5	\$ 90.9	\$ 125.6	\$ 50.8	\$ 1,436.3
Estimated interest payments on debt	636.7	119.7	117.9	115.7	112.5	110.3	60.6
Operating lease obligations	81.5	23.2	16.4	14.3	12.2	7.6	7.8
Capital lease obligation	3.0	1.0	0.9	0.1	0.2	0.2	0.6
Purchase obligations ⁽¹⁾⁽²⁾	3,426.7	392.1	296.3	244.3	232.3	227.6	2,034.1
Uncertain tax positions, including interest and penalties ⁽⁴⁾	24.5	—	—	—	—	—	24.5
Estimated pension obligations ⁽⁵⁾	12.7	12.7	—	—	—	—	—
Total contractual cash obligations	<u>\$ 6,022.0</u>	<u>\$ 590.5</u>	<u>\$ 523.0</u>	<u>\$ 465.3</u>	<u>\$ 482.8</u>	<u>\$ 396.5</u>	<u>\$ 3,563.9</u>

- (1) Included in this line are our estimated minimum purchases required under our KFPC joint venture agreement. Due to the indefinite term of this joint venture, we have based our minimum purchases on an assumed 20 year useful life of the facility.
- (2) Pursuant to operating agreements with LyondellBasell, we are currently paying the costs incurred by them in connection with the operation and maintenance of, and other services related to, our Berre, France, and Wesseling, Germany, facilities. These obligations are not included in this table.
- (3) Deferred income tax liabilities may vary according to changes in tax laws, tax rates, and the operating results. As a result, it is impractical to determine whether there will be a cash impact to an individual year. All noncurrent deferred income tax liabilities have been reflected in "2022 and beyond."
- (4) Due to uncertainties in the timing of the effective settlement of tax positions with the respective taxing authorities, we are unable to determine the timing of payments related to uncertain tax positions, including interest and penalties. Amounts beyond the current year are therefore reflected in "2022 and beyond."
- (5) This represents our expected 2017 minimum pension contributions. Due to the complexity of aligning future assumptions for multiple pension plans subsequent to the acquisition of Arizona Chemical, we have changed the methodology and presentation for the pension obligations from prior Annual Reports.

Impact of Inflation. Our results of operations and financial condition are presented based on historical cost. While it is difficult to accurately measure the impact of inflation due to the imprecise nature of the estimates required, we do not believe the overall effects of inflation, if any, on our results of operations and financial condition have been material.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

We are exposed to certain market risks, including risks from changes in interest rates, foreign currency exchange rates, and commodity prices that could impact our financial condition, results of operations, and cash flows. We selectively manage our exposure to these and other market risks through regular operating and financing activities as well as through the use of market risk sensitive instruments. We use such financial instruments as risk management tools and not for trading purposes. The market risk sensitive instruments that we have entered into as of December 31, 2016 consist of a series of non-deliverable forward contracts.

Interest rate risk. On January 6, 2016, we entered into a new Term Loan Facility and a new ABL Facility which bear interest at variable rates, thereby exposing us to interest rate risk. Subsequent to the close of our Term Loan Facility, we entered into a series of interest rate swaps for a portion of the forecasted Term Loan Facility balance effective in January 2017 whereby we exchanged floating for fixed rate interest payments in order to reduce exposure to interest rate volatility. However, interest rate swaps we entered may not fully mitigate our interest rate risk. We performed a hypothetical analysis to determine the impact to our financial position if the LIBOR forward rates increased or decreased by 10%, from the rates as of December 31, 2016 for the life of the interest rate swap agreement, which would result in a change of \$3.2 million in accumulated other comprehensive income (loss) as of December 31, 2016.

Foreign currency exchange risk. We conduct operations in many countries around the world. Our results of operations are subject to both currency transaction and currency translation risk. We incur currency transaction risk when we enter into either a purchase or sale transaction using a currency other than the local currency of the transacting entity. We are subject to currency translation risk because our financial condition and results of operations are measured and recorded in the relevant domestic currency and then translated into U.S. dollars for inclusion in our historical consolidated financial statements. We attempt to selectively manage significant exposures to potential foreign currency exchange losses based on current market conditions, future operating activities, and the associated cost in relation to the perceived risk of loss. The purpose of our foreign currency risk management activities is to minimize the risk that our cash flows from the sale and/or purchase of services and products in foreign currencies will be adversely affected by changes in exchange rates.

Periodically, we enter into foreign currency agreements to hedge or otherwise protect against fluctuations in foreign currency exchange rates. These agreements typically do not qualify for hedge accounting and gains/losses resulting from both the up-front premiums and/or settlement of the hedges at expiration of the agreements are recognized in the period in which they are incurred. In 2016, we entered into a series of foreign currency forward contracts to reduce our exposure to exchange rate volatility. These contracts were structured such that the underlying foreign currency exchange gains/losses would be offset by the mark-to-market impact of the hedging instruments and reduce the impact of foreign currency exchange movements throughout the year. The notional amounts of open foreign currency forward contracts were \$68.9 million at December 31, 2016 and \$24.1 million at December 31, 2015. The notional amounts of our forward contracts do not generally represent amounts exchanged by the parties, and thus are not a measure of our exposure or of the cash requirements related to these contracts. As such, cash flows related to these contracts are typically not material. The amounts exchanged are calculated by reference to the notional amounts and by other terms of the contracts, such as exchange rates.

We use sensitivity analysis models to measure the impact of a hypothetical 10% adverse movement of foreign currency exchange rates against the U.S. dollar. For our foreign currency transaction risk, a hypothetical 10% adverse change in the foreign currency exchange rates for all our foreign currency positions would result in a \$13.4 million pre-tax loss for our net monetary assets denominated in currencies other than the respective entity's functional currency at December 31, 2016. For our foreign currency translation risk, a hypothetical 10% adverse change in the applicable average foreign currency exchange rates relative to the U.S. dollar in 2017 would negatively impact our pre-tax income by \$18.6 million.

There are certain limitations inherent in the sensitivity analyses presented, primarily due to the assumption that interest rates and exchange rates change instantaneously in an equally adverse fashion. In addition, the analyses are unable to reflect the complex market reactions that normally would arise from the market shifts modeled. While this is our best estimate of the impact of the various scenarios, these estimates should not be viewed as forecasts.

Commodity price risk. We are exposed to commodity price risk due to our forward contractual purchase commitments for raw materials. Our raw materials are primarily supplied by a portfolio of suppliers under long-term supply contracts and arrangements with various expiration dates. We are subject to future purchase commitments for these raw materials under minimum purchase contracts. Based on pricing as of December 31, 2016, a hypothetical 10.0% change in the market price for these raw materials would change our 2017 cost of goods sold by \$34.4 million.

Item 8. Financial Statements and Supplementary Data.

The financial statements are set forth herein commencing on page F-5 of this report.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

An evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15 under the Securities Exchange Act of 1934) was carried out under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer. As of December 31, 2016, based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

See Management's Annual Report on Internal Control over Financial Reporting on page F-2 of the audited consolidated financial statements provided under Item 8 of this Form 10-K.

Attestation Report of the Registered Public Accounting Firm

See Report of Independent Registered Public Accounting Firm on page F-3 of the audited consolidated financial statements provided under Item 8 of this Form 10-K.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during the three months ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information in response to this item is incorporated by reference to our Proxy Statement relating to our 2017 annual meeting of shareholders. The Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K pursuant to Regulation 14A under the Exchange Act.

Item 11. Executive Compensation.

Information in response to this item is incorporated by reference to our Proxy Statement relating to our 2017 annual meeting of shareholders. The Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K pursuant to Regulation 14A under the Exchange Act.

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

Information in response to this item is incorporated by reference to our Proxy Statement relating to our 2017 annual meeting of shareholders. The Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K pursuant to Regulation 14A under the Exchange Act.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Information in response to this item is incorporated by reference to our Proxy Statement relating to our 2017 annual meeting of shareholders. The Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K pursuant to Regulation 14A under the Exchange Act.

Item 14. Principal Accountant Fees and Services.

Information in response to this item is incorporated by reference to our Proxy Statement relating to our 2017 annual meeting of shareholders. The Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year covered by this Form 10-K pursuant to Regulation 14A under the Exchange Act.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) 1. Financial Statements

The following financial statements are included in Item 8:

Kraton Corporation

- (i) The reports of KPMG LLP, Independent Registered Public Accounting Firm
- (ii) Consolidated Balance Sheets as of December 31, 2016 and 2015
- (iii) Consolidated Statements of Operations—years ended December 31, 2016, 2015, and 2014
- (iv) Consolidated Statements of Comprehensive Income (Loss)—years ended December 31, 2016, 2015, and 2014
- (v) Consolidated Statements of Changes in Equity—years ended December 31, 2016, 2015, and 2014
- (vi) Consolidated Statements of Cash Flows—years ended December 31, 2016, 2015, and 2014
- (vii) Notes to consolidated financial statements

2. Exhibits

The exhibits listed on the accompanying Exhibit Index are filed as part of this report and are on file with us.

(b) Exhibits

See Item 15(a) 2 above.

(c) Financial Statement Schedule

See Schedule II.

Item 16. Form 10-K Summary

None.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

Date: February 28, 2017

Kraton Corporation

/s/ KEVIN M. FOGARTY

Kevin M. Fogarty
President and Chief Executive Officer

This report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 28, 2017.

Signature	Title
/s/ KEVIN M. FOGARTY Kevin M. Fogarty	President, Chief Executive Officer and a Director (Principal Executive Officer)
/s/ STEPHEN E. TREMBLAY Stephen E. Tremblay	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ CHRIS H. RUSSELL Chris H. Russell	Chief Accounting Officer (Principal Accounting Officer)
* Anna C. Catalano	Director
* Steven J. Demetriou	Director
* Dominique Fournier	Director
* John J. Gallagher	Director
* Barry J. Goldstein	Director
* Francis S. Kalman	Director
* Dan F. Smith	Director
* Karen A. Twitchell	Director

*By: /s/ STEPHEN E. TREMBLAY
Stephen E. Tremblay
As attorney-in-fact

KRATON CORPORATION
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Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, as amended. Internal control over financial reporting, no matter how well designed, has inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation to assess the effectiveness of our internal control over financial reporting as of December 31, 2016 based upon criteria set forth in the *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment, we believe that, as of December 31, 2016, our internal control over financial reporting is effective.

As discussed in Note 3, *Acquisition of Arizona Chemical*, the Company acquired Arizona Chemical on January 6, 2016. In the conduct of its assessment of the effectiveness of the Company's internal control over financial reporting for the year ended December 31, 2016, management has excluded total assets of \$1,779.4 million, or 61.2% of Kraton's total assets, and revenue of \$719.4 million, or 41.2% of Kraton's net sales, related to Arizona Chemical that are included in the consolidated financial statements of Kraton and its subsidiaries as of and for the year ended December 31, 2016. Management must include Arizona Chemical in the conduct of its assessment of the effectiveness of the Company's internal control over financial reporting no later than January 6, 2017.

The effectiveness of our internal control over financial reporting as of December 31, 2016 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report that is included herein.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Kraton Corporation:

We have audited Kraton Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Kraton Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Kraton Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

Kraton Corporation acquired Arizona Chemical during 2016, and management excluded from its assessment of the effectiveness of Kraton Corporation's internal control over financial reporting as of December 31, 2016, Arizona Chemical's internal control over financial reporting associated with total assets of \$1,779.4 million and total revenue of \$719.4 million included in the consolidated financial statements of Kraton Corporation and subsidiaries as of and for the year ended December 31, 2016. Our audit of internal control over financial reporting of Kraton Corporation also excluded an evaluation of the internal control over financial reporting of Arizona Chemical.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Kraton Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and our report dated February 28, 2017 expressed an unqualified opinion on those consolidated financial statements.

(signed) KPMG LLP

Houston, Texas
February 28, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Kraton Corporation:

We have audited the accompanying consolidated balance sheets of Kraton Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of Kraton Corporation'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 the standards of the Public Company Accounting Oversight Board (United States). Those standards 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. 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Kraton Corporation and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Kraton Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 28, 2017 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Our audit report dated February 28, 2017 on internal control over financial reporting as of December 31, 2016, contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2016, Arizona Chemical's internal control over financial reporting associated with total assets of \$1,779.4 million and total revenue of \$719.4 million included in the consolidated financial statements of Kraton Corporation and subsidiaries as of and for the year ended December 31, 2016. Our audit of internal control over financial reporting of Kraton Corporation also excluded an evaluation of the internal control over financial reporting of Arizona Chemical.

(signed) KPMG LLP

Houston, Texas
February 28, 2017

KRATON CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)

	December 31, 2016	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 121,749	\$ 70,049
Receivables, net of allowances of \$814 and \$244	200,860	105,089
Inventories of products	327,996	264,107
Inventories of materials and supplies	22,392	12,138
Prepaid expense	35,851	6,740
Other current assets	37,658	23,216
Total current assets	746,506	481,339
Property, plant, and equipment, less accumulated depreciation of \$411,418 and \$382,157	906,722	517,673
Goodwill	770,012	—
Intangible assets, less accumulated amortization of \$144,946 and \$100,093	439,198	41,602
Investment in unconsolidated joint venture	11,195	11,628
Debt issuance costs	3,511	1,337
Deferred income taxes	6,907	3,867
Other long-term assets	22,594	21,789
Total assets	<u>\$ 2,906,645</u>	<u>\$ 1,079,235</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 41,825	\$ 141
Accounts payable-trade	150,081	59,337
Other payables and accruals	130,398	91,011
Due to related party	14,669	14,101
Total current liabilities	336,973	164,590
Long-term debt, net of current portion	1,697,700	415,591
Deferred income taxes	211,396	9,070
Other long-term liabilities	170,339	96,992
Total liabilities	<u>2,416,408</u>	<u>686,243</u>
Commitments and contingencies (note 12)		
Equity:		
Kraton stockholders' equity:		
Preferred stock, \$0.01 par value; 100,000 shares authorized; none issued	—	—
Common stock, \$0.01 par value; 500,000 shares authorized; 30,960 shares issued and outstanding at December 31, 2016; 30,569 shares issued and outstanding at December 31, 2015	310	306
Additional paid in capital	361,682	349,871
Retained earnings	254,439	147,131
Accumulated other comprehensive loss	(158,530)	(138,568)
Total Kraton stockholders' equity	457,901	358,740
Noncontrolling interest	32,336	34,252
Total equity	<u>490,237</u>	<u>392,992</u>
Total liabilities and equity	<u>\$ 2,906,645</u>	<u>\$ 1,079,235</u>

See Notes to Consolidated Financial Statements

KRATON CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Years Ended December 31,		
	2016	2015	2014
Revenue	\$ 1,744,104	\$ 1,034,626	\$ 1,230,433
Cost of goods sold	1,265,079	805,970	993,366
Gross profit	479,025	228,656	237,067
Operating expenses:			
Research and development	39,491	31,024	31,370
Selling, general, and administrative	177,625	117,308	104,209
Depreciation and amortization	125,658	62,093	66,242
Impairment of long-lived assets	—	—	4,731
Operating income	136,251	18,231	30,515
Disposition and exit of business activities	28,416	—	—
Loss on extinguishment of debt	(13,423)	—	—
Earnings of unconsolidated joint venture	394	406	407
Interest expense, net	(138,952)	(24,223)	(24,594)
Income (loss) before income taxes	12,686	(5,586)	6,328
Income tax benefit (expense)	91,954	(6,943)	(5,118)
Consolidated net income (loss)	104,640	(12,529)	1,210
Net loss attributable to noncontrolling interest	2,668	1,994	1,209
Net income (loss) attributable to Kraton	\$ 107,308	\$ (10,535)	\$ 2,419
Earnings (loss) per common share:			
Basic	\$ 3.48	\$ (0.34)	\$ 0.07
Diluted	\$ 3.43	\$ (0.34)	\$ 0.07
Weighted average common shares outstanding:			
Basic	30,180	30,574	32,163
Diluted	30,621	30,574	32,483

See Notes to Consolidated Financial Statements

KRATON CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Years Ended December 31,		
	2016	2015	2014
Net income (loss) attributable to Kraton	\$ 107,308	\$ (10,535)	\$ 2,419
Other comprehensive loss:			
Foreign currency translation adjustments, net of tax of \$0	(6,736)	(44,125)	(44,628)
Unrealized gain on cash flow hedges, net of tax benefit of \$290	515	—	—
(Increase) decrease in benefit plans liability, net of tax of \$4,392, \$2,683, and \$0	(13,741)	4,775	(33,338)
Other comprehensive loss, net of tax	(19,962)	(39,350)	(77,966)
Comprehensive income (loss) attributable to Kraton	87,346	(49,885)	(75,547)
Comprehensive loss attributable to noncontrolling interest	(1,916)	(3,416)	(3,240)
Consolidated comprehensive income (loss)	\$ 85,430	\$ (53,301)	\$ (78,787)

See Notes to Consolidated Financial Statements

KRATON CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In thousands)

	Common Stock	Additional Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Kraton Equity	Noncontrolling Interest	Total Equity
Balance at January 1, 2014	\$ 325	\$ 363,590	\$ 170,827	\$ (21,252)	\$ 513,490	\$ 40,908	\$ 554,398
Net income (loss)	—	—	2,419	—	2,419	(1,209)	1,210
Other comprehensive loss	—	—	—	(77,966)	(77,966)	(2,031)	(79,997)
Retired treasury stock from employee tax withholdings	—	(704)	—	—	(704)	—	(704)
Retired treasury stock from share repurchases	(10)	(13,464)	(5,205)	—	(18,679)	—	(18,679)
Exercise of stock options	1	1,447	—	—	1,448	—	1,448
Non-cash compensation related to equity awards	2	10,473	—	—	10,475	—	10,475
Balance at December 31, 2014	\$ 318	\$ 361,342	\$ 168,041	\$ (99,218)	\$ 430,483	\$ 37,668	\$ 468,151
Net loss	—	—	(10,535)	—	(10,535)	(1,994)	(12,529)
Other comprehensive loss	—	—	—	(39,350)	(39,350)	(1,422)	(40,772)
Retired treasury stock from employee tax withholdings	—	(578)	—	—	(578)	—	(578)
Retired treasury stock from share repurchases	(16)	(20,930)	(10,375)	—	(31,321)	—	(31,321)
Exercise of stock options	1	1,025	—	—	1,026	—	1,026
Non-cash compensation related to equity awards	3	9,012	—	—	9,015	—	9,015
Balance at December 31, 2015	\$ 306	\$ 349,871	\$ 147,131	\$ (138,568)	\$ 358,740	\$ 34,252	\$ 392,992
Net income (loss)	—	—	107,308	—	107,308	(2,668)	104,640
Other comprehensive income (loss)	—	—	—	(19,962)	(19,962)	752	(19,210)
Retired treasury stock from employee tax withholdings	(1)	(974)	—	—	(975)	—	(975)
Retired treasury stock from share repurchases	—	—	—	—	—	—	—
Exercise of stock options	2	4,454	—	—	4,456	—	4,456
Non-cash compensation related to equity awards	3	8,331	—	—	8,334	—	8,334
Balance at December 31, 2016	\$ 310	\$ 361,682	\$ 254,439	\$ (158,530)	\$ 457,901	\$ 32,336	\$ 490,237

See Notes to Consolidated Financial Statements

KRATON CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31,		
	2016	2015	2014
CASH FLOWS FROM OPERATING ACTIVITIES			
Consolidated net income (loss)	\$ 104,640	\$ (12,529)	\$ 1,210
Adjustments to reconcile consolidated net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	125,658	62,093	66,242
Amortization of debt premium and original issue discount	7,987	(174)	(164)
Amortization of debt issuance costs	8,741	2,233	2,223
Loss on disposal of property, plant, and equipment	665	237	314
Disposition and exit of business activities	(28,416)	—	—
Loss on extinguishment of debt	13,423	—	—
Impairment of long-lived assets and spare parts inventory	—	—	5,161
Earnings (loss) from unconsolidated joint venture, net of dividends received	15	(43)	80
Deferred income tax benefit	(12,609)	(3,114)	(2,523)
Release of valuation allowance	(86,273)	—	—
Share-based compensation	8,334	9,015	10,475
<i>Decrease (increase) in:</i>			
Accounts receivable	(17,526)	(5,149)	13,005
Inventories of products, materials, and supplies	26,252	47,530	(15,883)
Other assets	(8,181)	(5,466)	(6,437)
<i>Increase (decrease) in:</i>			
Accounts payable-trade	13,177	(7,910)	(35,368)
Other payables and accruals	(23,455)	21,232	(30)
Other long-term liabilities	5,881	(163)	(3,849)
Due to related party	155	(3,945)	(4,598)
Net cash provided by operating activities	<u>138,468</u>	<u>103,847</u>	<u>29,858</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Kraton purchase of property, plant, and equipment	(99,205)	(57,065)	(66,398)
KFPC purchase of property, plant, and equipment	(20,386)	(69,105)	(44,277)
Purchase of software and other intangibles	(5,862)	(2,572)	(3,710)
Acquisition, net of cash acquired	(1,312,105)	—	—
Sale of assets	72,803	—	—
Net cash used in investing activities	<u>(1,364,755)</u>	<u>(128,742)</u>	<u>(114,385)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from debt	1,787,965	30,000	39,000
Repayments of debt	(485,133)	(30,000)	(39,000)
KFPC proceeds from debt	36,896	80,094	—
Capital lease payments	(272)	(133)	(6,007)
Purchase of treasury stock	(975)	(31,899)	(19,383)
Proceeds from the exercise of stock options	4,456	1,026	1,448
Settlement of interest rate swap	(5,155)	—	—
Debt issuance costs	(57,646)	(1,957)	(485)
Net cash provided by (used in) financing activities	<u>1,280,136</u>	<u>47,131</u>	<u>(24,427)</u>
Effect of exchange rate differences on cash	(2,149)	(6,005)	(13,100)
Net increase (decrease) in cash and cash equivalents	<u>51,700</u>	<u>16,231</u>	<u>(122,054)</u>
Cash and cash equivalents, beginning of period	70,049	53,818	175,872
Cash and cash equivalents, end of period	<u>\$ 121,749</u>	<u>\$ 70,049</u>	<u>\$ 53,818</u>
Supplemental disclosures:			
Cash paid during the period for income taxes, net of refunds received	\$ 10,723	\$ 6,340	\$ 10,724
Cash paid during the period for interest, net of capitalized interest	\$ 115,706	\$ 21,157	\$ 22,396
Capitalized interest	\$ 5,825	\$ 4,185	\$ 3,198
Supplemental non-cash disclosures:			
Property, plant, and equipment accruals	\$ 31,677	\$ 16,883	\$ 5,375
Asset acquired through capital lease	\$ 1,679	\$ 681	\$ 7,033

See Notes to Consolidated Financial Statements

KRATON CORPORATION
Notes to Consolidated Financial Statements
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1. Description of Business, Basis of Presentation and Significant Accounting Policies

Description of Business. We are a leading global specialty chemicals company that manufactures styrenic block copolymers (“SBCs”) and other engineered polymers. Effective with our January 6, 2016 acquisition of Arizona Chemical (the “Arizona Chemical Acquisition”), we are now also a leading global producer of value-added specialty products primarily derived from pine wood pulping co-products. Commensurate with the Arizona Chemical Acquisition, Arizona Chemical became a separate operating segment, our Chemical segment, and since such date our operations have been managed through two operating segments: (i) Polymer segment and (ii) Chemical segment. Operating results for Arizona Chemical are included in the accompanying consolidated financial statements since the date of acquisition.

Basis of Presentation. The accompanying consolidated financial statements presented herein are for us and our consolidated subsidiaries, each of which is a wholly-owned subsidiary, except our 50% investment in our joint venture, Kraton Formosa Polymers Corporation (“KFPC”), located in Mailiao, Taiwan. KFPC is a variable interest entity for which we have determined that we are the primary beneficiary and, therefore, have consolidated into our financial statements. Our 50% investment in our joint venture located in Kashima, Japan, is accounted for under the equity method of accounting. All significant intercompany transactions have been eliminated.

Reclassifications. Certain amounts reported in the consolidated financial statements and notes to the consolidated financial statements for the prior periods have been reclassified to conform to the current reporting presentation.

Significant Accounting Policies. These financial statements reflect all normal recurring adjustments that are, in the opinion of management, necessary to fairly present our results of operations and financial position.

Use of Estimates. The preparation of these consolidated financial statements in conformity with U.S. generally accepted accounting principles (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Significant items subject to such estimates and assumptions include

- the useful lives of fixed assets;
- estimates of fair value for assets acquired and liabilities assumed in a purchase business combination;
- allowances for doubtful accounts and sales returns;
- the valuation of derivatives, deferred taxes, property, plant and equipment, inventory, and share-based compensation; and
- liabilities for employee benefit obligations, environmental matters, asset retirement obligations, income tax uncertainties, and other contingencies.

Cash and Cash Equivalents. It is our policy to invest our excess cash in investment instruments whose value is not subject to market fluctuations, such as bank deposits or certificates of deposit. Other permitted investments include commercial paper of major U.S. corporations with ratings of A1 by Standard & Poor’s Ratings Group or P1 by Moody’s Investor Services, Inc., loan participations of major U.S. corporations with a short term credit rating of A1/P1 and direct obligations of the U.S. government or its agencies. We consider all investments having a remaining maturity, at the time of purchase, of three months or less to be cash equivalents.

Receivables. Receivables are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in our existing receivables and is determined based on our assessment of the credit worthiness of individual customers, historical write-off experience, and global economic data. We review the allowance for doubtful accounts quarterly. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. We do not have significant off-balance sheet credit exposure related to our customers.

Inventories. Our inventory is principally comprised of finished goods inventory and raw materials. Inventory values include all costs directly associated with manufacturing of our products. Inventories are stated at the lower of cost or market as primarily determined on a first-in, first-out basis. We evaluate the carrying cost of our inventory on a quarterly basis for this purpose. If the cost of the inventories exceeds their market value, provisions are made for the differences between the cost and the market value.

Derivative Instruments and Hedging Activities. We account for derivatives and hedging activities in accordance with ASC 815, “*Derivatives and Hedging*,” which requires entities to recognize all derivative instruments as either assets or liabilities in the balance sheet at their respective fair values. For derivatives designated in cash flow hedging relationships, changes in the fair value are either offset through earnings against the change in fair value of the hedged item attributable to the

risk being hedged or recognized in accumulated other comprehensive income (loss), to the extent the derivative is effective at offsetting the changes in cash flows being hedged until the hedged item affects earnings.

For all hedging relationships, we formally document the hedging relationship and our risk-management objective and strategy for undertaking the hedge, the hedging instrument, the hedged transaction, the nature of the risk being hedged, how the hedging instrument’s effectiveness in offsetting the hedged risk will be assessed prospectively and retrospectively, and a description of the method used to measure ineffectiveness. We also formally assess both at the inception of the hedging relationship and on an ongoing basis, whether the derivatives that are used in hedging relationships are highly effective in offsetting changes in cash flows of hedged transactions. For derivative instruments that are designated and qualify as part of a cash flow hedging relationship, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

We discontinue hedge accounting prospectively when we determine that the derivative is no longer effective in offsetting cash flows attributable to the hedged risk, the derivative expires or is sold, terminated, or exercised, and the cash flow hedge is de-designated because a forecasted transaction is not probable of occurring, or we remove the designation of the cash flow hedge.

In all situations in which hedge accounting is discontinued and the derivative remains outstanding, we continue to carry the derivative at its fair value on the balance sheet and recognize any subsequent changes in its fair value in earnings. When it is probable that a forecasted transaction will not occur, we discontinue hedge accounting and recognize immediately in earnings gains and losses that were accumulated in other comprehensive income (loss) related to the hedging relationship.

Property, Plant, and Equipment. Property, plant, and equipment are stated at cost, net of accumulated depreciation. Major renewals and improvements which extend the useful lives of equipment are capitalized. Repair and maintenance costs are expensed as incurred. Disposals are removed at carrying cost less accumulated depreciation with any resulting gain or loss reflected in earnings. We capitalize interest costs which are incurred as part of the cost of constructing major facilities and equipment. Depreciation is recognized using the straight-line method over the following estimated useful lives:

Machinery and equipment	20 years
Building and land improvements	20 years
Manufacturing control equipment	10 years
Office equipment	5 years
Research equipment and facilities	5 years
Vehicles	5 years
Computer hardware and information systems	3 years

Major Maintenance Activities. Major maintenance or turnaround costs are expensed as incurred.

Goodwill and Other Intangible Assets. We record goodwill when the purchase price of an acquired business exceeds the fair value of the net identifiable assets acquired. Goodwill and intangible assets are allocated to the reporting unit level based on the estimated fair value at the date of acquisition.

Goodwill and other indefinite-lived intangible assets are tested for impairment at the reporting unit level annually or more frequently as deemed necessary. Our annual measurement date for testing impairment is October 1st. The impairment test includes a comparison of the carrying value of net assets of our reporting units, including goodwill, with their estimated fair values. If the carrying value exceeds the estimated fair value, an impairment charge is recognized in the period in which the review is performed.

Asset Retirement Obligations (“ARO”). We have determined that we have contractual or regulatory requirements to decommission and perform other remediation for many of our manufacturing and research facilities upon retirement. We account for ARO’s pursuant to the provisions of ASC 410-20, “*Asset Retirement Obligations.*” ASC 410-20 requires us to record the fair value of an ARO as a liability in the period in which we have a legal obligation associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development, and/or normal use of the assets. The ARO is also capitalized as part of the carrying cost of the asset and is depreciated over the life of the asset. The recognition of an ARO requires us to make numerous estimates, assumptions, and judgments regarding such factors as the existence of a legal obligation for an ARO; estimated probabilities; amounts and timing of settlements; the credit-adjusted risk-free rate to be used; discount rate and inflation rates. Subsequent to the initial measurement of the ARO, the obligation is to be adjusted at the end of each period to reflect accretion of the liability to its non-discounted amount and changes in either the timing or the amount of the original estimated future cash flows underlying the obligation. Revisions also result in increases or decreases in the

carrying cost of these assets. Increases in the ARO liability due to accretion is charged to depreciation and amortization expense. The related capitalized cost, including revisions thereto, is charged to depreciation and amortization expense.

Long-Lived Assets. In accordance with the Impairment or Disposal of Long-Lived Assets Subsections of ASC 360-10, “Property, Plant, and Equipment—Overall,” long-lived assets, such as property, plant, and equipment, and purchased intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, we first compare the undiscounted cash flows expected to be generated by that asset or asset group to its carrying value. If the carrying value of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, impairment is recognized to the extent that the carrying value exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Intangible Assets. Intangible assets are stated at cost, net of accumulated amortization. We have intangible assets related to technology, customer relationships, tradenames/trademarks, and software as detailed in Note 6 *Detail of Certain Balance Sheet Accounts* to the consolidated financial statements. Intangible assets are amortized using the straight-line method over the asset's estimated useful life as follows:

Technology	15 years
Customer relationships	15 years
Tradenames/trademarks	15 years
Software	10 years

Pension and Other Postretirement Plans. We sponsor a noncontributory defined benefit pension plan and an additional post-retirement benefit plan. We annually evaluate significant assumptions related to the benefits and obligations of these plans. Our estimation of the projected benefit obligations and related benefit expense requires that certain assumptions be made regarding such variables as expected return on plan assets, discount rates, rates of future compensation increases, estimated future employee turnover rates and retirement dates, distribution election rates, mortality rates, retiree utilization rates for health care services, and health care cost trend rates. The determination of the appropriate assumptions requires considerable judgment concerning future events and has a significant impact on the amount of the obligations and expense recorded. We rely in part on actuarial studies when determining the appropriateness of certain of the assumptions used in determining the benefit obligations and the annual expenses for these plans.

Investment in Unconsolidated Joint Venture. Our 50% equity investment in a manufacturing joint venture at our Kashima site is accounted for under the equity method with our share of the operating results of the joint venture classified within earnings of unconsolidated joint venture.

We evaluate our equity method investment for impairment when events or changes in circumstances indicate, in our judgment, that the carrying value of such investment may have experienced an other-than-temporary decline in value. When evidence of loss in value has occurred, we compare the estimated fair value of the investment to the carrying value of the investment to determine whether impairment has occurred. We assess the fair value of our equity method investment using commonly accepted techniques, and may use more than one method, including, but not limited to, recent third party comparable sales, internally developed analysis and analysis from outside advisors. If the estimated fair value is less than the carrying value and we consider the decline in value to be other than temporary, the excess of the carrying value over the estimated fair value is recognized in the financial statements as an impairment.

Debt Issuance Costs. We capitalize financing fees and other costs related to issuing long-term debt. We amortize these costs using the effective interest method, except for costs related to revolving debt, which are amortized using the straight-line method. The amortization of debt issuance costs are recorded in interest expense.

Contingencies. We are routinely involved in litigation, claims, and disputes incidental to our business. Professional judgment is required to classify the likelihood of these contingencies occurring. All relevant information that can be acquired concerning the uncertain set of circumstances needs to be obtained and used to determine the probability classification. A contingency is categorized as probable, reasonably possible, or remote. A contingency is classified as probable if the future event or events are likely to occur. For the probable contingencies, a loss is accrued and disclosed as of the date of the financial statements if it is both probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of loss can be reasonably estimated. A reasonably possible contingency occurs if the chance of the future event or events happening is more than remote but less than likely (reasonably possible but not probable). We disclose the loss contingencies in the footnotes to the financial statements but do not recognize any liability. A remote contingency is one where the chance of the future event or events occurring is slight. We neither accrue for nor disclose the liability in the notes to the financial statements. For loss contingencies, our accounting policy is to expense legal costs as incurred.

Environmental Costs. Environmental costs are expensed as incurred unless the expenditures extend the economic useful life of the relevant assets. Costs that extend the economic useful life of assets are capitalized and depreciated over the remaining life of those assets. Liabilities are recorded when environmental assessments, or remedial efforts are probable, and the cost can be reasonably estimated.

Disclosures about Fair Value of Financial Instruments. For cash and cash equivalents, receivables, accounts payable, and certain accrued expenses, the carrying amount approximates fair value due to the short maturities of these instruments. For long-term debt instruments and interest rate swap agreements, fair value is estimated based upon market values (if applicable) or on the current interest rates available to us for debt with similar terms and remaining maturities. Considerable judgment is required in developing these estimates.

Revenue Recognition. Revenue is recognized in accordance with the provisions of ASC 605, “*Revenue Recognition—Overall*,” when the revenue is realized or realizable, and has been earned. Revenue for product sales is recognized when risk and title to the product transfer to the customer, which usually occurs at the time shipment is made. The majority of our sales are transacted with the shipping term free on board shipping point or, with respect to countries other than the U.S., an equivalent basis. As such, title to the product passes when the product is delivered to the freight carrier. Our standard terms of delivery are included in our contracts of sale, order confirmation documents, and invoices. Shipping and other transportation costs charged to customers are recorded in both revenue and cost of goods sold. Revenue is recognized net of value-added taxes.

We have entered into agreements with some of our customers whereby they earn rebates from us when the volume of their purchases of our product reach certain agreed upon levels. We recognize the rebate obligation ratably as a reduction of revenue.

Research and Development Expenses. Research and development expenses are expensed as incurred.

Share-Based Compensation. Share-based compensation cost is measured at the grant date based on the fair value of the award. We recognize these costs using the straight-line method over the requisite service period. The Kraton Corporation Equity Incentive Plan (the “*Equity Plan*”) allows for the grant to key employees, independent contractors, and eligible non-employee directors of incentive stock options (for employees only), non-qualified stock options, stock appreciation rights, restricted stock awards, and restricted stock units, in addition to other equity or equity-based awards (including performance-based awards) as our board determines from time to time. We estimate the fair value of stock options using the Black-Scholes valuation model. Since our equity interests were privately held prior to our initial public offering, we have limited publicly traded stock history, and as a result our estimated volatility is based on a combination of our historical volatility and similar companies’ stock that are publicly traded. Until such time that we have enough publicly traded stock history to estimate volatility based solely on our stock, we expect to estimate volatility of options granted based on a combination of our historical volatility and similar companies’ stock that are publicly traded. The expected term of options represents the period of time that options granted are expected to be outstanding. For all periods presented, we used the simplified method to calculate the expected term of options. The risk free interest rate for the periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. For all periods presented, the dividend yield is assumed to be zero based on historical and expected dividend activity. Forfeitures are based substantially on the history of cancellations of similar awards granted in prior years. See Note 5 *Share-Based Compensation* to the consolidated financial statements.

Leases. Our leases entered into as of December 31, 2016 are classified as either operating or capital leases. A lease is deemed a capital lease when one of the following conditions is met: (1) ownership of the asset is transferred to the lessee at the end of the lease term; (2) the lease contains a bargain purchase option; (3) the lease term is 75% or more of the asset’s useful life; or (4) the net present value of minimum lease payments is equal to 90% or more of the asset’s fair market value. All other leases are classified as an operating lease. The capital lease obligation is classified as either a current liability or long term liability based on the lease payment schedule, and is offset by an asset purchased pursuant to the lease which is depreciated over the lesser of the lease term or the asset useful life, in accordance with our depreciation policy. For operating leases which contain escalating rent payment clauses, we use the straight-line method to record lease expense.

Income Taxes. We conduct operations in separate legal entities in different jurisdictions. As a result, income tax amounts are reflected in these consolidated financial statements for each of those jurisdictions.

Income taxes are recorded utilizing an asset and liability approach. This method gives consideration to the future tax consequences associated with the differences between the financial accounting and tax basis of the assets and liabilities as well as the ultimate realization of any deferred tax asset resulting from such differences. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. We consider

the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, we believe it is more likely than not that we will realize the benefits of these deductible differences, net of the existing valuation allowances.

We provide liabilities for uncertain tax positions for federal, state, local and international exposures relating to periods subject to audit. The development of liabilities for uncertain tax positions for these exposures requires judgment about tax issues, potential outcomes and timing. We assess tax positions and record tax benefits based upon management's evaluation of facts, circumstances, and information available at the respective reporting date. For those tax positions where it is more-likely-than-not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon settlement with a tax authority. For those tax positions where it is not more-likely-than-not that a tax benefit will be sustained, no tax benefit has been recognized in the consolidated financial statements.

Foreign Currency Translation and Foreign Currency Exchange Rates. Financial statements of our operations outside the U.S. where the local currency is considered to be the functional currency are translated into U.S. dollars using the exchange rate at each balance sheet date for assets and liabilities and the average exchange rate for each period for revenue, expenses, gains, losses, and cash flows. The effects of translating such operations into U.S. dollars are included as a component of accumulated other comprehensive income (loss).

2. New Accounting Pronouncements

Adoption of Accounting Standards.

We have implemented all new accounting pronouncements that are in effect and that management believes would materially impact our financial statements.

In February 2015, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis*. This standard changes the consolidation analysis currently required under U.S. GAAP. This ASU modifies the process used to evaluate whether limited partnerships and similar entities are variable interest entities ("VIEs") or voting interest entities; affects the analysis performed by reporting entities regarding VIEs, particularly those with fee arrangements and related party relationships; and provides a scope exception for certain investment funds. The amendments in this update are effective for annual and interim periods beginning after December 15, 2015 and early adoption is permitted. We adopted this standard in the first quarter of 2016 and there was no material impact on our consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03, *Interest-Imputation of Interest*. This standard requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of such debt liability. In adopting ASU 2015-03, companies must apply the guidance on a retrospective basis. The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2015. We adopted ASU 2015-03 in the first quarter of 2016. We have assessed the impact of this new standard on our Consolidated Financial Statements and concluded that it would have resulted in reductions of approximately \$1.3 million, \$12.1 million, and \$13.5 million of other current assets, debt issuance costs, and long-term debt, respectively, as of December 31, 2015.

In July 2015, the FASB issued ASU No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*. This standard changes the measurement principle for inventory from the lower of cost or market to the lower of cost or net realizable value. ASU 2015-11 defines net realizable value as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The guidance must be applied on a prospective basis and is effective for periods beginning after December 15, 2016, with early adoption permitted. We adopted ASU 2015-11 as of January 1, 2017 and there was no material impact to our consolidated financial statements.

In September 2015, the FASB issued ASU No. 2015-16, *Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments*. This standard requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. This includes recording in the reporting period the effect on earnings of changes in depreciation, amortization or other income effects as a result of the change to the provisional amounts as if the accounting had been completed at the acquisition date. The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2015. We adopted this standard in the first quarter of 2016 and have applied such guidance on our recording of the Arizona Chemical Acquisition. See Note 3 *Acquisition of Arizona Chemical* for further information about the measurement period for this acquisition.

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. This standard requires entities to present deferred tax assets (“DTA”) and deferred tax liabilities (“DTL”) as non-current in a classified balance sheet. This ASU simplifies the current guidance, which requires entities to separately present DTAs and DTLs as current and non-current in a classified balance sheet. The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016 and early adoption is permitted. In addition, the standard can be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. We have adopted ASU 2015-17 for the current reporting period and have applied the guidance on a retrospective basis.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 817)*. The ASU changes seven aspects of the accounting for share-based payment award transactions, including: (1) accounting for income taxes; (2) classification of excess tax benefits on the statement of cash flows; (3) forfeitures; (4) minimum statutory tax withholding requirements; (5) classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax-withholding purposes; (6) practical expedient - expected term (nonpublic only); (7) intrinsic value (nonpublic only). The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016, and early adoption is permitted. We adopted ASU 2016-09 as of January 1, 2017 and there was no material impact to our consolidated financial statements.

New Accounting Standards

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, updated by ASU No. 2015-14 *Deferral of the Effective Date* and ASU No. 2016-10 *Identifying Performance Obligations and Licensing*, which provides a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most current revenue recognition guidance. In August 2015, the effective date for the standard was deferred by one year and the standard is now effective for public entities for annual and interim periods beginning after December 15, 2017. Early adoption is permitted based on the original effective date. Our evaluation of this standard is currently ongoing and therefore, the effects of this standard on our financial position, results of operations and cash flows are not yet known.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This standard requires that an entity must recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of twelve months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and liabilities. The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018 and early adoption is permitted. Our evaluation of this standard is currently ongoing and therefore, the effects of this standard on our financial position, results of operations, and cash flows are not yet known.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230)*, updated by ASU No. 2016-18 *Restricted Cash*. The ASU addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice. The standard is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and early adoption is permitted. Our evaluation of this standard is currently ongoing and therefore, the effects of this standard on our financial position, results of operations and cash flows are not yet known.

3. Acquisition of Arizona Chemical

On January 6, 2016, we acquired all of the capital stock of Arizona Chemical for a purchase price of \$1,361.9 million. In accordance with the sale and purchase agreement, we finalized the purchase price with the sellers and received an additional \$5.1 million of cash during the year ended December 31, 2016.

The \$1,361.9 million purchase price for the Arizona Chemical Acquisition, the cash tender offer and redemption of all outstanding 6.75% senior notes due 2019, and the related acquisition and financing expenses for the Arizona Chemical Acquisition were funded through the following transactions:

- A \$1,350.0 million six-year senior secured first lien term loan facility;
- A private offering of \$440.0 million in aggregate principal amount of 10.5% senior notes due 2023; and
- An amended and restated \$250.0 million five-year asset-based revolving credit facility.

Our previously outstanding indebtedness under the 6.75% senior notes due 2019 and the former senior secured credit facilities were satisfied and canceled on January 6, 2016. See Note 8 *Long-Term Debt* to the Consolidated Financial Statements for a further description of the debt issued to finance the Arizona Chemical Acquisition.

We have accounted for the Arizona Chemical Acquisition using the purchase method of accounting for business combinations. Accordingly, the purchase price has been allocated to the underlying assets and liabilities in proportion to their respective fair values. The excess of the purchase price over the estimated fair value of the net assets acquired has been recorded as goodwill. Following the close of the Arizona Chemical Acquisition, the operating results of Arizona Chemical are

reported as a separate operating segment, “Chemical segment.” See Note 14 *Industry Segments and Foreign Operations* for further information.

For the year ended December 31, 2016, we recognized \$30.6 million of transaction and integration related costs, which are included in selling, general, and administrative expenses in the Consolidated Statements of Operations.

The following table summarizes the final purchase price allocation for the Arizona Chemical Acquisition, which is based on management’s estimates, judgments, and assumptions.

	Weighted Average Amortization Period	Fair Value
		(In thousands)
Cash		\$ 49,835
Inventories ⁽¹⁾		122,305
Litigation asset		94,204
Accounts receivable and other current assets		118,394
Property, plant, and equipment		350,584
Intangible assets: ⁽²⁾	12.9 years	
Contractual Agreements	12 years	260,400
Customer Relationships	17 years	25,000
Technology	16 years	100,000
Trade Name	10 years	50,000
Software	3-5 years	4,140
Goodwill ⁽³⁾		770,933
Other long-term assets		3,662
Current liabilities		(129,995)
Income tax liabilities		(316,419)
Leases		(422)
Other long-term liabilities		(140,681)
Purchase price		1,361,940
Cash		49,835
Purchase price, net of cash acquired		\$ 1,312,105

- (1) An adjustment of approximately \$24.7 million was recorded to reflect Arizona Chemical's inventories at fair value and increased cost of sales by the same amount for the year ended December 31, 2016.
- (2) Aggregate amortization expense was approximately \$36.1 million from January 6, 2016 through December 31, 2016. Estimated amortization expense 2017—\$36.2 million; 2018—\$35.3 million; 2019—\$34.5 million; 2020—\$34.1 million; and 2021—\$34.1 million.
- (3) During 2016, we adjusted the preliminary purchase price allocation based on further review of the assets acquired and liabilities assumed. Based on additional analysis of the underlying contracts, we decreased the customer relationship intangible asset by \$80.0 million and increased the contractual agreement intangible asset by \$70.0 million. The remaining adjustments related to various working capital accounts that required fair value modifications, primarily related to current liabilities and income tax liabilities. Each of these measurement period adjustments correspondingly increased goodwill. As of December 31, 2016, we are final with respect to purchase accounting adjustments.

Goodwill has been calculated as the excess of the consideration transferred over the net assets acquired and represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. See Note 14 *Industry Segments and Foreign Operations* for further information regarding our reportable segments. Goodwill recognized as a result of the acquisition is not deductible for tax purposes.

We applied pushdown accounting, which resulted in recording the various assets acquired and liabilities assumed at their fair value at the date of the Arizona Chemical Acquisition in each domestic and foreign legal entity of Arizona Chemical for financial reporting purposes.

The fair value of acquired identifiable intangible assets was determined using the “income approach” on an individual project basis. In performing these valuations, the key underlying probability-adjusted assumptions of the discounted cash flows were projected revenues, gross margin expectations, and operating cost estimates, when appropriate. The valuations were based on the information that was available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by the Company’s management. There are inherent uncertainties and management judgment required in these determinations. The fair value measurements of the assets acquired and liabilities assumed were based on valuations involving significant unobservable inputs, or Level 3 in the fair value hierarchy.

The purchase price of Arizona Chemical exceeded the net acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. Cash flows used to determine the purchase price included strategic and synergistic benefits specific to the Company, which resulted in a purchase price in excess of the fair value of identifiable net assets. The purchase price also included the fair values of other assets that were not identifiable, not separately recognizable under accounting rules (e.g., assembled workforce) or of immaterial value in addition to a going-concern element that represents the Company’s ability to earn a higher rate of return on the group of assets than would be expected on the separate assets as determined during the valuation process.

Arizona Chemical contributed revenue and net income of \$719.4 million and \$38.7 million, respectively, to the consolidated operating results of Kraton for the period from January 6, 2016 through December 31, 2016. The following unaudited pro forma information presents consolidated information as if the Arizona Chemical Acquisition had occurred on January 1, 2015:

	Years Ended December 31,	
	2016	2015
	(In thousands, except per share data)	
Revenue	\$ 1,744,104	\$ 1,841,937
Net income attributable to Kraton	\$ 127,899	\$ 38,398
Earnings per share		
Basic	\$ 4.15	\$ 1.23
Diluted	\$ 4.09	\$ 1.22

The unaudited pro forma information presented above is for information purposes only and is not necessarily indicative of the operating results that would have occurred had the Arizona Chemical Acquisition been consummated at the beginning of the period, nor is it necessarily indicative of future operating results. The unaudited pro forma amounts above have been calculated after applying Kraton’s accounting policies and adjusting the Arizona Chemical results to reflect (1) the additional depreciation and amortization that would have been charged assuming the fair value adjustments to property, plant, and equipment and intangible assets had been applied from January 1, 2015; (2) the elimination of historical interest expense for Arizona Chemical as this debt was paid off by the previous owners; (3) the additional interest expense resulting from the debt issued to fund the Arizona Chemical Acquisition; (4) the elimination of transaction-related costs; (5) the effect of purchase price accounting on inventory valuation; and (6) an adjustment to tax-effect the aforementioned unaudited pro forma adjustments using an estimated aggregate statutory income tax rate of the jurisdiction to which the above adjustments relate. The unaudited pro forma amounts do not include any potential synergies, cost savings or other expected benefits of the Arizona Chemical Acquisition.

4. Disposition and Exit of Business Activities

Exit of NEXAR™

In June 2016, we exited our NEXAR™ product line due to the loss of certain key customers. We recorded a loss related to this exit activity of \$8.6 million during the year ended December 31, 2016. This loss includes \$5.3 million for the write off of inventory and associated disposal costs and \$3.2 million for the write off of fixed assets.

Disposition of Joint Venture

In May 2016, as the result of a legal settlement with our joint venture partner BASF, S.A., we dissolved our joint venture in Paulinia, Brazil. As part of the settlement, we obtained 100% interests in the joint venture and the real estate, building, and other assets of the joint venture located at our Paulinia, Brazil, manufacturing facility. In accordance with ASC 323-10-35 *Dissolution of a Joint Venture*, we recorded a gain of \$3.2 million during the year ended December 31, 2016 for the fair market value of these assets less the carrying value of our investment in the joint venture.

Sale of Belpre Compounding Unit

On January 29, 2016, we sold certain assets including intellectual property, inventory, equipment, and other intangible assets associated with our Belpre, Ohio, compounding unit (the “BCU”) for total proceeds of \$72.8 million, of which \$72.0 million was used to pay down existing indebtedness during the first quarter of 2016. The BCU is used to manufacture HSBC and USBC based compounds. We recognized a gain on the sale of \$38.2 million during the year ended December 31, 2016. In connection with the sale, we entered into an exclusive polymer supply agreement with a seven year term and a compound manufacturing agreement for a transition period of up to two years with the purchaser. During the fourth quarter of 2016, we amended the polymer supply agreement and settled a dispute with the buyer resulting in a \$7.6 million charge to our consolidated statements of operations.

Exit of Solution Resinates

In December 2016, we exited our solution resinates product line and recorded a loss related to this exit activity of \$4.4 million during the year ended December 31, 2016. This loss includes \$2.9 million for the write off of fixed assets and \$1.5 million associated with demolition costs and disposal of inventory.

5. Share-Based Compensation

We account for share-based awards under the provisions of ASC 718, *Compensation—Stock Compensation*, which established the accounting for share-based awards exchanged for employee services. Accordingly, share-based compensation cost is measured at the grant date based on the fair value of the award and we expense these costs using the straight-line method over the requisite service period. Share-based compensation expense was approximately \$8.3 million, \$9.0 million and \$10.5 million, tax effected by \$3.0 million, \$0.0 million, and \$0.2 million for the years ended December 31, 2016, 2015, and 2014, respectively. Our unrecognized compensation expense related to our share-based awards were as follows as of December 31, 2016.

	Unrecognized Compensation Expense	Weighted Average Remaining Recognition Period
	(In thousands)	
Non-qualified option awards	\$ 105	0.17
Restricted stock awards	\$ 5,419	1.22
Restricted stock units	\$ 1,167	1.20
Performance stock units	\$ 5,710	1.55

Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan and 2016 Equity and Cash Incentive Plan. On May 18, 2016, the stockholders approved the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (the “2016 Plan”). The 2016 Plan will replace the Company’s 2009 Equity Incentive Plan. Under the 2016 Plan, there are a total of 2,708,057 shares of our common stock reserved for issuance. As of December 31, 2016 and 2015 there were 2,704,829 and 1,231,675 shares of our common stock available for issuance, respectively.

Non-qualified Stock Option Activity

Non-qualified option activities for the year ended December 31, 2016 are as follows:

	Options (In thousands)	Weighted Average Exercise Price	Aggregate Intrinsic Value ⁽¹⁾ (In thousands)	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2015	1,466	\$ 24.47		
Granted	—	—		
Exercised	229	19.46		
Forfeited	8	27.98		
Expired	56	34.49		
Outstanding at December 31, 2016	1,173	\$ 24.94	\$ 6,764	4.01
Exercisable at December 31, 2016	1,131	\$ 24.83	\$ 6,728	3.89

(1) The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price of the option as of December 31, 2016.

These options have a ten year term and vest in equal installments over three years. During the year ended December 31, 2016, net proceeds of \$4.5 million were received from the exercise of stock options.

	Years Ended December 31,		
	2016	2015	2014
Weighted-average grant-date fair value of options granted	\$ —	\$ —	\$ 12.32

	(In thousands)		
Options exercised	\$ 229	\$ 64	\$ 104
Total intrinsic value of options exercised	\$ 2,080	\$ 411	\$ 1,103

Weighted-Average Assumptions for Non-qualified Option Pricing

	2016	2015	2014
Risk-free interest rate	n/a	n/a	1.82%
Expected dividend yield	n/a	n/a	—%
Expected volatility	n/a	n/a	47.2%
Expected term	n/a	n/a	6.0 years

For 2014 option pricing, we had limited publicly traded stock history, and as a result, our estimated volatility is based on a combination of our historical volatility and similar companies' stock that are publicly traded. The expected term of options represents the period of time that options granted are expected to be outstanding. We used the simplified method to calculate the expected term of options. The risk free interest rate for the periods within the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant. The dividend yield is assumed to be zero based on historical and expected dividend activity.

Restricted Stock Awards and Restricted Stock Units

We may grant to certain employees time-vested restricted stock awards and time-vested restricted share units. Holders of restricted share units do not have any beneficial ownership in the common stock underlying the restricted share units and the grant represents an unsecured promise to deliver common stock on a future date. Actual shares of common stock underlying the restricted share units will not be issued until the earlier of the passage of the vesting period, a change in control that also results in the termination of the grantee's employment, or the death / disability of the participant. We awarded 257,141, 280,353, and 192,812 shares of restricted stock to our employees, which are subject to a three-year cliff vesting, during the years ended December 31, 2016, 2015, and 2014, respectively. We issued 39,504, 32,584, and 22,518 shares of restricted stock to members of the board of directors during the years ended December 31, 2016, 2015, and 2014, respectively, which vested on the grant date. We granted 77,757, 52,845, and 38,918 restricted share units to our employees during the years ended December 31, 2016, 2015, and 2014, respectively, which are subject to a three-year cliff vesting.

The following table represents the non-vested restricted stock awards and restricted share units granted, vested, and forfeited during 2016.

	Restricted Stock Awards		Restricted Stock Units	
	Shares	Weighted-average Grant-date Fair Value	Shares	Weighted-average Grant-date Fair Value
	(In thousands)		(In thousands)	
Non-vested shares at December 31, 2015	600	\$ 22.72	106	\$ 20.54
Granted	296	16.97	77	16.49
Vested	201	22.49	25	23.51
Forfeited	109	19.47	24	16.62
Non-vested shares at December 31, 2016	586	\$ 20.50	134	\$ 18.56

The total fair value of shares vested during the years ended December 31, 2016, 2015, and 2014 pursuant to restricted stock awards and restricted share units was \$4.0 million, \$3.6 million, and \$4.6 million, respectively.

Performance Share Units

We may grant to certain employees performance share units, which vest after the achievement of performance criteria established at grant. Holders of performance share units do not have any beneficial ownership in the shares of our common stock underlying the performance share units, and the grant represents an unsecured promise to deliver shares of our common stock on a future date. The performance share units vest at the end of a three-year period assuming continued employment and assuming the Company's achievement of the performance measures established by our Compensation Committee when the performance share units were initially granted. When performance share units vest, a number of shares of our common stock from 0% to 200% of the initial grant amount will be issued, depending on the level of achievement of such performance measures. We granted 287,819, 240,536, and 90,186 performance share units to our employees during the years ended December 31, 2016, 2015, and 2014, respectively.

The following table represents the non-vested performance share units granted, vested, and forfeited during 2016.

	Shares	Weighted-average Grant-date Fair Value
	(In thousands)	
Non-vested shares at December 31, 2015	329	\$ 22.27
Granted	288	17.58
Vested	—	—
Forfeited	153	20.95
Non-vested shares at December 31, 2016	464	\$ 20.19

Weighted-Average Assumptions for Performance Share Unit Grant Date Fair Value

For the performance share units granted in 2016, a component of the performance targets was based on relative total shareholder return over the three-year performance cycle compared to an industry peer group. The weighted average fair value using a Monte Carlo simulation model and the corresponding weighted average assumptions for the performance share units granted during the year ended December 31, 2016 was as follows:

	2016	2015
Risk-free interest rate	0.83%	0.95%
Expected dividend yield	—%	—%
Expected volatility	33.0%	29.7%
Fair value per performance share award	\$ 19.24	\$ 24.75

6. Detail of Certain Balance Sheet Accounts

	December 31,	
	2016	2015
(In thousands)		
Inventories of products:		
Finished products	\$ 237,698	\$ 211,273
Work in progress	5,648	4,501
Raw materials	84,650	48,333
Total inventories of products	<u>\$ 327,996</u>	<u>\$ 264,107</u>
Property, plant and equipment:		
Land	\$ 34,109	\$ 10,164
Buildings	131,036	46,234
Plant and equipment ⁽¹⁾	910,658	675,822
Construction in progress	242,337	167,610
Property, plant, and equipment	<u>1,318,140</u>	<u>899,830</u>
Less accumulated depreciation	411,418	382,157
Property, plant, and equipment, net of accumulated depreciation	<u>\$ 906,722</u>	<u>\$ 517,673</u>
Intangible assets:		
Contractual agreements	\$ 258,646	\$ —
Technology	145,320	45,553
Customer relationships	59,977	35,145
Tradenames/trademarks	77,666	26,562
Software	42,535	34,435
Intangible assets	<u>584,144</u>	<u>141,695</u>
Less accumulated amortization:		
Contractual agreements	20,757	—
Technology	44,698	35,833
Customer relationships	31,863	28,170
Tradenames/trademarks	25,363	18,819
Software	22,265	17,271
Total accumulated amortization	<u>144,946</u>	<u>100,093</u>
Intangible assets, net of accumulated amortization	<u>\$ 439,198</u>	<u>\$ 41,602</u>

(1) Plant and equipment includes \$7.2 million and \$6.3 million of assets related to capital leases as of December 31, 2016 and December 31, 2015, respectively.

	December 31,	
	2016	2015
(In thousands)		
Other payables and accruals:		
Employee related	\$ 33,947	\$ 23,850
Arizona Chemical transaction accrual	—	18,267
Property, plant, and equipment accrual	26,260	16,142
Other	70,191	32,752
Total other payables and accruals	<u>\$ 130,398</u>	<u>\$ 91,011</u>
Other long-term liabilities:		
Pension and other postretirement benefits	\$ 138,188	\$ 85,997
Other	32,151	10,995
Total other long-term liabilities	<u>\$ 170,339</u>	<u>\$ 96,992</u>

Aggregate depreciation expense for property, plant, and equipment was approximately \$80.5 million, \$50.5 million, and \$54.5 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Aggregate amortization expense for intangible assets was approximately \$44.9 million, \$11.2 million, and \$11.2 million for the years ended December 31, 2016, 2015, and 2014, respectively. Estimated amortization expense for each of the next five years is as follows:

<u>December 31:</u>	<u>Amortization Expense</u>
	<u>(In thousands)</u>
2017	\$ 46,540
2018	\$ 45,258
2019	\$ 36,999
2020	\$ 35,256
2021	\$ 35,187

Changes in accumulated other comprehensive income (loss) by component were as follows:

	<u>Cumulative Foreign Currency Translation</u>	<u>Net Unrealized Gain on Cash Flow Hedges</u>	<u>Unrealized Loss on Net Investment Hedges</u>	<u>Benefit Plans Liability, Net of Tax</u>	<u>Total</u>
Balance at December 31, 2014	\$ (21,870)	\$ —	\$ (1,926)	\$ (75,422)	\$ (99,218)
Other comprehensive income (loss) before reclassifications	(44,125)	—	—	975	(43,150)
Amounts reclassified from accumulated other comprehensive loss	—	—	—	3,800	3,800
Net other comprehensive income (loss) for the year	(44,125)	—	—	4,775	(39,350)
Balance at December 31, 2015	(65,995)	—	(1,926)	(70,647)	(138,568)
Other comprehensive income (loss) before reclassifications	(6,736)	515	—	(16,157)	(22,378)
Amounts reclassified from accumulated other comprehensive loss	—	—	—	2,416	2,416
Net other comprehensive income (loss) for the year	(6,736)	515	—	(13,741)	(19,962)
Balance at December 31, 2016	<u>\$ (72,731)</u>	<u>\$ 515</u>	<u>\$ (1,926)</u>	<u>\$ (84,388)</u>	<u>\$ (158,530)</u>

The following table provides details for amounts reclassified from accumulated other comprehensive income (loss) into net income in the consolidated statements of operations:

<u>Details about amounts reclassified from Accumulated Other Comprehensive Income (Loss) into Net Income</u>	<u>Location of Reclassification Income/(Expense) in Consolidated Statement of Operations</u>	<u>Years Ended December 31,</u>	
		<u>2016</u>	<u>2015</u>
<u>Amortization of pension and other post-retirement items</u>			
Amortization of net actuarial loss	(1)	\$ (3,496)	\$ (5,143)
Curtailment loss	(1)	—	—
Prior service cost arising during the year	(1)	315	—
Prior service cost recognized in exp during the year	(1)	(8)	—
Settlement loss	(1)	—	(792)
	<u>Provision for income taxes</u>	<u>773</u>	<u>2,135</u>
		<u>\$ (2,416)</u>	<u>\$ (3,800)</u>

- (1) These components are allocated between cost of goods sold, selling, general, and administrative and research and development expenses in the Consolidated Statement of Operations. See *Note 13. Employee Benefits* for further information related to net periodic benefit cost for pension and other post-retirement benefit plans.

7. Earnings per Share (“EPS”)

Basic EPS is computed by dividing net income attributable to Kraton by the weighted-average number of shares outstanding during the period. Diluted EPS is computed by dividing net income attributable to Kraton by the diluted weighted-average number of shares outstanding during the period and, accordingly, reflects the potential dilution that could occur if securities or other agreements to issue common stock, such as stock options, were exercised, settled, or converted into common stock and were dilutive. The diluted weighted-average number of shares used in our diluted EPS calculation is determined using the treasury stock method.

Unvested awards of share-based payments with rights to receive dividends or dividend equivalents, such as our restricted stock awards are considered to be participating securities and therefore the two-class method is used for purposes of calculating EPS. Under the two-class method, a portion of net income is allocated to these participating securities and therefore is excluded from the calculation of EPS allocated to common stock. These shares are subject to forfeiture and restrictions on transfer until vested and have identical voting, income and distribution rights to the unrestricted common shares outstanding. Restricted stock awards outstanding totaled 586,204, 599,541, and 489,543 at December 31, 2016, 2015, and 2014, respectively. Our weighted average restricted stock awards outstanding were 663,032, 553,846, and 491,698 for the years ended December 31, 2016, 2015, and 2014, respectively. We withheld 55,821 and 28,273 shares of restricted stock upon vesting to satisfy employee payroll tax withholding requirements for the years ended December 31, 2016 and 2015, respectively. We immediately retired all shares withheld and the transactions were reflected in additional paid in capital in the Consolidated Statements of Changes in Equity and as a purchase of treasury stock in the Consolidated Statements of Cash Flows.

Restricted share units in the amount of 161,833, 138,002, and 95,055 were outstanding at December 31, 2016, 2015, and 2014, respectively, including vested and non-vested restricted share units. The computation of diluted EPS includes weighted average restricted share units of 172,957 and 84,658 for the years ended December 31, 2016 and 2014, respectively. The computation of diluted EPS excludes weighted average restricted share units of 134,038 for the year ended December 31, 2015, respectively, as they are anti-dilutive due to a net loss attributable to Kraton for those periods.

Performance share units in the amount of 463,650, 329,182, and 137,206 were outstanding at December 31, 2016, 2015, and 2014, respectively. The computation of diluted EPS includes weighted average performance share units of 32,484 and 28,902 for the years ended December 31, 2016 and 2014, respectively. The computation of diluted EPS excludes weighted average performance share units of 33,296 for the years ended December 31, 2015, as they are anti-dilutive due to a net loss attributable to Kraton for those periods. In addition, the computation of diluted EPS also excludes the effect of performance share units for which the performance contingencies had not been met as of the reporting date, amounting to 436,143, 296,684, and 102,396 for the years ended December 31, 2016, 2015, and 2014, respectively.

Stock options in the amount of 1,173,374, 1,465,609, and 1,619,091 were outstanding at December 31, 2016, 2015, and 2014, respectively. The computation of diluted EPS includes stock options added under the treasury stock method, which amounted to 236,117 and 205,949 for the years ended December 31, 2016 and 2014, respectively. The computation of diluted earnings per share excludes the effect of the potential exercise of stock options that are anti-dilutive, amounting to 284,690, 1,465,609, and 1,001,198 for the years ended December 31, 2016, 2015, and 2014, respectively.

The calculations of basic and diluted EPS are as follows:

	Year Ended December 31, 2016		
	Net Income Attributable to Kraton	Weighted Average Shares Outstanding	Earnings Per Share
	(In thousands, except per share data)		
<i>Basic:</i>			
As reported	\$ 107,308	30,843	
Amounts allocated to unvested restricted shares	(2,307)	(663)	
Amounts available to common stockholders	\$ 105,001	30,180	\$ 3.48
<i>Diluted:</i>			
Amounts allocated to unvested restricted shares	2,307	663	
Non participating share units		205	
Stock options added under the treasury stock method		236	
Amounts reallocated to unvested restricted shares	(2,274)	(663)	
Amounts available to stockholders and assumed conversions	\$ 105,034	30,621	\$ 3.43

Year Ended December 31, 2015

Net Loss Attributable to Kraton	Weighted Average Shares Outstanding	Loss Per Share
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(In thousands, except per share data)

<i>Basic:</i>		
As reported	\$ (10,535)	31,128
Amounts allocated to unvested restricted shares	187	(554)
Amounts available to common stockholders	\$ (10,348)	\$ (0.34)
<i>Diluted:</i>		
Amounts allocated to unvested restricted shares	(187)	554
Non participating share units		—
Stock options added under the treasury stock method		—
Amounts reallocated to unvested restricted shares	187	(554)
Amounts available to stockholders and assumed conversions	\$ (10,348)	\$ (0.34)

Year Ended December 31, 2014

Net Income Attributable to Kraton	Weighted Average Shares Outstanding	Earnings Per Share
--	--	--------------------------

(In thousands, except per share data)

<i>Basic:</i>		
As reported	\$ 2,419	32,655
Amounts allocated to unvested restricted shares	(36)	(492)
Amounts available to common stockholders	\$ 2,383	\$ 0.07
<i>Diluted:</i>		
Amounts allocated to unvested restricted shares	36	492
Non participating share units		114
Stock options added under the treasury stock method		206
Amounts reallocated to unvested restricted shares	(36)	(492)
Amounts available to stockholders and assumed conversions	\$ 2,383	\$ 0.07

Share Repurchase Program. On October 27, 2014, our board of directors approved a share repurchase program, which allowed for the repurchase of outstanding shares of our common stock having an aggregate purchase price of up to \$50.0 million. We repurchased shares of our common stock in the open market at prevailing market prices and through a trading program under Rule 10b5-1. From the inception of the program through December 31, 2016, we repurchased a total of 2,549,683 shares of our common stock at an average price of \$19.58 per share and a total cost of \$50.0 million (including trading commissions). The share repurchase plan was financed with available cash and the program is now complete.

8. Long-Term Debt

Long-term debt consists of the following:

	December 31, 2016				December 31, 2015			
	Principal	Discount	Debt Issuance Cost	Total	Principal	Premium	Debt Issuance Cost ⁽¹⁾	Total
	(In thousands)							
Term Loan	\$ 1,278,000	\$ (34,085)	\$ (31,662)	\$ 1,212,253	\$ —	\$ —	\$ (6,000)	\$ (6,000)
10.5% Senior Notes due 2023	440,000	(15,038)	(16,329)	408,633	—	—	(2,819)	(2,819)
6.75% Senior Notes due 2019	—	—	—	—	350,000	651	(4,268)	346,383
ABL Facility	—	—	—	—	—	—	—	—
KFPC loan agreement	115,854	—	(257)	115,597	76,912	—	(378)	76,534
Capital lease obligation	3,042	—	—	3,042	1,634	—	—	1,634
Total debt	1,836,896	(49,123)	(48,248)	1,739,525	428,546	651	(13,465)	415,732
Less current portion of total debt	41,825	—	—	41,825	141	—	—	141
Long-term debt	\$ 1,795,071	\$ (49,123)	\$ (48,248)	\$ 1,697,700	\$ 428,405	\$ 651	\$ (13,465)	\$ 415,591

(1) Prior to the adoption of ASU No. 2015-03, debt issuance costs of \$1.3 million and \$12.1 million were previously recorded in other current assets and debt issuance costs, respectively in the Consolidated Balance Sheet as of December 31, 2015.

Debt Issuance Costs. We capitalize the debt issuance costs related to issuing long-term debt and amortize these costs using the effective interest method, except for costs related to revolving debt, which are amortized using the straight-line method. Amortization of debt issuance costs are recorded as a component of interest expense and the accelerated write-off of debt issuance costs in connection with refinancing activities are recorded as a component of loss on extinguishment of debt. In conjunction with the closing of the Arizona Chemical Acquisition on January 6, 2016, we amended and restated our asset-based revolving credit facility (“ABL Facility”) and the debt issuance costs associated with these efforts were recorded within other current assets and debt issuance costs in the accompanying Consolidated Balance Sheets. We deferred \$61.3 million of debt issuance costs related to the debt financing in conjunction with the Arizona Chemical Acquisition, of which \$8.8 million was deferred in the fourth quarter of 2015, \$1.7 million was carried over from our previous debt issuance costs and \$50.8 million was deferred during the year ended December 31, 2016. In connection with our January 2016 refinancing, we charged to interest expense \$5.0 million of unamortized debt issuance costs related to our previously existing indebtedness. We had net debt issuance cost of \$52.9 million as of December 31, 2016, of which \$4.7 million related to our ABL Facility which is recorded as an asset (of which \$1.2 million was included in other current assets) and \$48.2 million is recorded as a reduction to long-term debt. We amortized \$8.7 million, \$2.2 million, and \$2.2 million during the years ended December 31, 2016, 2015, and 2014, respectively.

Senior Secured Term Loan Facility. In January 2016, Kraton Polymers LLC entered into a senior secured term loan facility in an aggregate principal amount equal to \$1,350.0 million that matures on January 6, 2022 (as amended, the “Term Loan Facility”). Subject to compliance with certain covenants and other conditions, we have the option to borrow up to \$350.0 million of incremental term loans plus an additional amount subject to a senior secured net leverage ratio.

Borrowings under the Term Loan Facility bear interest at a rate per annum equal to an applicable margin, plus, at our option, either (a) an adjusted LIBOR rate (subject to a 1.0% floor) determined by reference to the costs of funds for U.S. dollar deposits for the interest period relevant to such borrowing adjusted for statutory reserve requirements or (b) an alternate base rate (subject to a 2.0% floor) determined by reference to the highest of (1) the prime rate of Credit Suisse AG, (2) the federal funds effective rate plus 0.5% and (3) the one month adjusted LIBOR rate plus 1.0% per annum. In addition, we are required to pay customary agency fees. As of the date of this filing, the effective rate on the Term Loan Facility was 5.0% comprised of the 1.0% LIBOR floor plus a 4.0% applicable margin, which is a 1.0% reduction in our effective interest rate due to the Second Amendment to Credit and Guarantee Agreement entered on January 9, 2017.

We used the \$72.0 million received from the sale of the compounding assets to prepay our scheduled principal payments under the Term Loan Facility through the second quarter of 2017. As a result our next scheduled quarterly principal payment under the Term Loan Facility, at 5.0%, is not due until the third quarter of 2017, continuing thereafter, with the balance expected to be due and payable in full on January 6, 2022. Voluntary prepayments on the Term Loan Facility may be made without premium or penalty other than customary “breakage” costs with respect to LIBOR loans and other than a 1.0% premium in connection with certain repricing transactions consummated within a certain period of time after the closing of the Term Loan Facility. In the event we have consolidated excess cash flow for any fiscal year, we are required to prepay an amount of borrowings under the Term Loan Facility equal to at least 50.0% of such cash flow by the 90th day after the end of the fiscal year. The prepayment percentage is reduced to 25.0% if our senior secured net leverage ratio is under 2.5:1.0 or 0% if our senior secured net leverage ratio is below 2.0:1.0.

The Term Loan Facility is a senior secured obligation that is guaranteed by Kraton Corporation and certain of our wholly-owned domestic subsidiaries. The Term Loan Facility contains a number of customary affirmative and negative covenants. These covenants include a senior secured net leverage ratio which shall not exceed, as of the last day of any fiscal quarter, 4.00:1.00 through March 31, 2017, which will decrease to 3.75:1.00 through March 31, 2018, 3.50:1.00 through March 31, 2019, and 3.25:1.00 thereafter. As of the date of this filing, we were in compliance with the covenants under the Term Loan Facility.

10.5% Senior Notes due 2023. Kraton Polymers LLC and its wholly-owned financing subsidiary Kraton Polymers Capital Corporation issued \$440.0 million aggregate principal amount of 10.5% Senior Notes that mature on April 15, 2023 (the “10.5% Senior Notes”). The 10.5% Senior Notes are general unsecured, senior obligations and are unconditionally guaranteed on a senior unsecured basis by each of Kraton Corporation and certain of its wholly-owned domestic subsidiaries, other than the issuers. We pay interest on the notes at 10.5% per annum, semi-annually in arrears on April 15 and October 15 of each year, and paid the first interest payment on October 14, 2016. Prior to October 15, 2018, we may redeem up to 40.0% of the aggregate principal amount of the 10.5% Senior Notes with the net proceeds of certain equity offerings at a redemption price equal to 110.5% of the principal amount of the 10.5% Senior Notes plus accrued and unpaid interest, if any, to the date of redemption. After October 15, 2018, 2019, 2020, and 2021 and thereafter, we may redeem all or a part of the 10.5% Senior Notes for 107.875%, 105.250%, 102.625%, and 100.0% of the principal amount, respectively.

ABL Facility. In January 2016, we entered into an amended and restated asset-based revolving credit facility that provides financing of up to \$250.0 million (the “ABL Facility”). We did not have any borrowings drawn under this facility as of December 31, 2016. The ABL Facility is primarily secured by receivables and inventory, and borrowing availability under the ABL Facility is subject to borrowing base limitations based on the level of receivables and inventory available for security. Revolver commitments under the ABL Facility consist of U.S. and Dutch revolving credit facility commitments, and the terms of the ABL Facility require the U.S. revolver commitment comprises at least 60.0% of the commitments under the ABL Facility.

The ABL Facility provides that we have the right at any time to request up to \$100.0 million of additional commitments under this facility, provided that we satisfy additional conditions described in the credit agreement and provided further that the U.S. revolver commitment comprises at least 60.0% of the commitments after giving effect to such increase. We cannot guarantee that all of the lending counterparties contractually committed to fund a revolving credit draw request will actually fund future requests, although we currently believe that each of the counterparties would meet their funding requirements. The ABL Facility terminates on January 6, 2021; however, we may, from time to time, request that the lenders extend the maturity of their commitments; provided that at no time shall there be more than four different maturity dates under the ABL Facility.

Borrowings under the ABL Facility bear interest at a rate per annum equal to the applicable margin plus (1) a base rate determined by reference to the prime rate of Bank of America, N.A. in the jurisdiction where the currency is being funded or (2) LIBOR for loans that bear interest based on LIBOR. The initial applicable margin for borrowings under the ABL Facility is 0.5% with respect to U.S. base rate borrowings and 1.5% with respect to LIBOR or borrowings made on a European base rate. The applicable margin ranges from 0.5% to 1.0% with respect to U.S. base rate borrowings and 1.5% to 2.0% for LIBOR or borrowings made on a European base rate per annum based on the average excess availability for the prior fiscal quarter. In addition to paying interest on outstanding principal amounts under the ABL Facility, we are required to pay a commitment fee in respect of the un-utilized commitments at an annual rate of 0.375%.

The ABL Facility contains a financial covenant requiring us to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0 if availability under the ABL facility is below a specified amount. Our failure to comply with this financial covenant would give rise to a default under the ABL Facility. If factors arise that negatively impact our profitability, we may not be able to satisfy this covenant. In addition, the ABL Facility contains customary events of default, including, without limitation, a failure to make payments under the ABL facility, cross-default with respect to other indebtedness and cross-judgment default, if certain bankruptcy events and certain change of control events were to occur. As of the date of this filing, we were in compliance with the covenants under the ABL Facility.

KFPC Loan Agreement. On July 17, 2014, KFPC executed a syndicated loan agreement (the “KFPC Loan Agreement”) in the amount of 5.5 billion New Taiwan Dollars (“NTD”), or \$170.8 million (converted at the December 31, 2016 exchange rate), to provide additional funding to construct the hydrogenated styrenic block copolymer (“HSBC”) facility in Taiwan and to provide funding for working capital requirements and/or general corporate purposes.

The KFPC Loan Agreement is comprised of a NTD 4.3 billion Tranche A, or \$133.2 million (converted at the December 31, 2016 exchange rate), to fund KFPC’s capital expenditures, and a NTD 1.2 billion Tranche B, or \$37.6 million (converted at the December 31, 2016 exchange rate), to fund working capital requirements and/or general corporate purposes. As of December 31, 2016, NTD 3.7 billion, or \$115.9 million (converted at the December 31, 2016 exchange rate) was drawn on the KFPC Loan Agreement. The facility period of the KFPC Loan Agreement is five years from January 17, 2015 (the first drawdown date). KFPC may continue to draw on the KFPC Loan Agreement for the first 28 months following the first drawdown date. Subject to certain conditions, KFPC can request a two-year extension of the facility period of the KFPC Loan Agreement.

The total outstanding principal amount is payable in six semi-annual installments with the first payment of \$11.6 million due on July 17, 2017 and each subsequent payment due every six months thereafter. The first five installments shall be in an amount equal to 10.0% of the outstanding principal amount and the final installment shall be in an amount equal to the remaining 50.0% of the outstanding principal amount. In the event the extension period is granted, the final 50.0% of the outstanding principal amount shall be repaid in five equal semi-annual installments with the first installment due on the original final maturity date.

The KFPC Loan Agreement is subject to a variable interest rate composed of a fixed 0.8% margin plus the three-month or six-month fixing rate of the Taipei Interbank Offered Rate (depending on the interest period selected by KFPC in the drawdown request or the interest period notice), subject to a floor of 1.7%. Interest is payable on a monthly basis. For the year ended December 31, 2016, our effective interest rate for borrowings on the KFPC Loan Agreement was 1.8%.

The KFPC Loan Agreement contains certain financial covenants which change during the term of the KFPC Loan Agreement. The financial covenants include a maximum debt to equity ratio of 2.0 to 1.0 in 2017 and 1.2 to 1.0 in 2018 and a minimum tangible net worth requirement of \$50.0 million through 2018, which will increase to \$100.0 million in 2019. Due to a waiver received from the majority of lenders we are no longer subject to a minimum interest coverage ratio in 2016 and our minimum interest coverage ratio requirement is 5.0 to 1.0 commencing in 2017. In each case, these covenants are calculated and tested on an annual basis. Formosa Petrochemical Corporation and Kraton Polymers LLC are the guarantors of the KFPC Loan Agreement with each guarantor guaranteeing 50.0% of the indebtedness. At December 31, 2016, KFPC was in compliance with the covenants under the KFPC Loan Agreement.

Debt Maturities. The principal payments on our outstanding total debt as of December 31, 2016, are as follows:

<u>December 31:</u>	Principal Payments
	(In thousands)
2017	\$ 41,825
2018	91,539
2019	90,840
2020	125,606
2021	50,815
Thereafter	1,436,271
Total debt	<u>\$ 1,836,896</u>

See Note 9 *Fair Value Measurements, Financial Instruments and Credit Risk* to the consolidated financial statements for fair value information related to our long-term debt.

9. Fair Value Measurements, Financial Instruments, and Credit Risk

ASC 820, “*Fair Value Measurements and Disclosures*” defines fair value, establishes a consistent framework for measuring fair value and expands disclosure requirements about fair value measurements. ASC 820 requires entities to, among other things, maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

ASC 820 specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions.

In accordance with ASC 820, these two types of inputs have created the following fair value hierarchy:

- Level 1—Inputs that are quoted prices (unadjusted) for identical assets or liabilities in active markets;
- Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability, including:
 - Quoted prices for similar assets or liabilities in active markets;
 - Quoted prices for identical or similar assets or liabilities in markets that are not active;
 - Inputs other than quoted prices that is observable for the asset or liability; and
 - Inputs that are derived principally from or corroborated by observable market data by correlation or other means; and
- Level 3—Inputs that are unobservable and reflect our assumptions used in pricing the asset or liability based on the best information available under the circumstances (e.g., internally derived assumptions surrounding the timing and amount of expected cash flows).

Recurring Fair Value Measurements. The following tables set forth by level within the fair value hierarchy our financial assets and liabilities that were accounted for at fair value on a recurring basis as of December 31, 2016 and December 31, 2015, respectively. These financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of their fair value and their placement within the fair value hierarchy levels.

	Balance Sheet Location	December 31, 2016	Fair Value Measurements at Reporting Date Using		
			Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
(In thousands)					
Derivative asset – current	Other current assets	\$ 243	\$ —	\$ 243	\$ —
Derivative asset – noncurrent	Other long-term assets	568	—	568	—
Retirement plan asset—noncurrent	Other long-term assets	1,894	1,894	—	—
Total		\$ 2,705	\$ 1,894	\$ 811	\$ —

	Balance Sheet Location	December 31, 2015	Fair Value Measurements at Reporting Date Using		
			Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
(In thousands)					
Retirement plan asset—current	Other current assets	\$ 272	\$ 272	\$ —	\$ —
Retirement plan asset—noncurrent	Other long-term assets	1,636	1,636	—	—
Total		\$ 1,908	\$ 1,908	\$ —	\$ —

The use of derivatives creates exposure to credit risk relating to potential losses that could be recognized in the event that the counterparties to these instruments fail to perform their obligations under the contracts. We seek to minimize this risk by limiting our counterparties to major financial institutions with acceptable credit ratings and monitoring the total value of positions with individual counterparties. In the event of a default by one of our counterparties, we may not receive payments provided for under the terms of our derivatives.

Nonrecurring Fair Value Measurements. Our long-lived assets, such as property, plant, and equipment, and purchased intangible assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. When impairment has occurred, such long-lived assets are written down to fair value.

The following table sets forth by level within the fair value hierarchy our fair value measurements with respect to non-financial assets that are measured at fair value on a nonrecurring basis. Our assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of their fair value and their placement within the fair value hierarchy levels. See Note 10 *Impairment and Restructuring Charges*, for further discussion.

	Fair Value Measurements as of Reporting Date				
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	December 31, 2014	Total Impairment Charges
	(In thousands)				
Long-lived assets	\$ —	\$ —	\$ 723	\$ 723	\$ 4,731
Total	\$ —	\$ —	\$ 723	\$ 723	\$ 4,731

For the years ended December 31, 2016 and 2015 we determined that there was no impairment related to our long-lived assets.

The following table presents the carrying values and approximate fair values of our long-term debt.

	December 31, 2016		December 31, 2015	
	Carrying Value	Fair Value	Carrying Value	Fair Value
	(In thousands)			
Term Loan (significant other observable inputs – level 2)	\$ 1,278,000	\$ 1,293,975	\$ —	\$ —
10.5% Senior Notes due 2023 (quoted prices in active market for identical assets – level 1)	\$ 440,000	\$ 501,600	\$ —	\$ —
6.75% Senior Notes due 2019 (quoted prices in active market for identical assets – level 1)	\$ —	\$ —	\$ 350,000	\$ 350,000
Capital lease obligation (significant other observable inputs - level 2)	\$ 3,042	\$ 3,042	\$ 1,634	\$ 1,634
KFPC Loan Agreement	\$ 115,854	\$ 115,854	\$ 76,912	\$ 76,912

Financial Instruments

Interest Rate Swap Agreements. Periodically, we enter into interest rate swap agreements to hedge or otherwise protect against interest rate fluctuations on a portion of our variable rate debt. These interest rate swap agreements are designated as cash flow hedges on our exposure to the variability of future cash flows.

On February 18, 2016, we entered into a series of interest rate swap agreements in an effort to convert a substantial portion of our future interest payments pursuant to the Term Loan Facility to a fixed interest rate. On February 18, 2016, we entered into two interest rate swaps, each with a notional value of \$323.9 million, an effective date of January 3, 2017 and a maturity date of December 31, 2020. We entered into two more interest rate swaps on March 21, 2016, each with a notional value of \$138.8 million, an effective date of January 3, 2017 and a maturity date of December 31, 2020. We recorded an unrealized gain of \$0.8 million in accumulated other comprehensive income (loss) related to the effective portion of these interest rate swap agreements for the year ended December 31, 2016.

Foreign Currency Hedges. Periodically, we enter into foreign currency agreements to hedge or otherwise protect against fluctuations in foreign currency exchange rates. These agreements typically do not qualify for hedge accounting and gains/losses resulting from both the up-front premiums and/or settlement of the hedges at expiration of the agreements are recognized in the period in which they are incurred. For the years ended December 31, 2016, 2015, and 2014, we recorded an aggregate loss of \$3.0 million, \$5.8 million, and \$6.5 million, respectively, which are recorded in cost of goods sold. These contracts are structured such that the gains/losses from the mark-to-market impact of the hedging instruments materially offset the underlying foreign currency exchange gains/losses to reduce the overall impact of foreign currency exchange movements throughout the period.

On January 6, 2016, we acquired several foreign currency forward contracts from Arizona Chemical, which were used to manage future cash flows with respect to exchange rate fluctuations. One of our subsidiaries, Arizona Chemical BV, a

Netherlands based entity with a Euro functional currency, is a party to foreign currency forward contracts to purchase Swedish Krona and U.S. Dollars to hedge certain intercompany foreign exchange exposures. We designated both of these forward contracts as a cash flow hedge. These contracts were entered into on various dates beginning in October 2015 through January 6, 2016 with various maturity dates from January 2016 through December 2016. We no longer have any foreign currency forward contracts as of December 31, 2016 and that was not a material impact to our financial statements for the year ended December 31, 2016.

Credit Risk

The use of derivatives creates exposure to credit risk relating to potential losses that could be recognized in the event that the counterparties to these instruments fail to perform their obligations under the contracts, which we seek to minimize by limiting our counterparties to major financial institutions with acceptable credit ratings and by monitoring the total value of positions with individual counterparties. In the event of a default by one of our counterparties, we may not receive payments provided for under the terms of our derivatives.

We analyze our counterparties' financial condition prior to extending credit and we establish credit limits and monitor the appropriateness of those limits on an ongoing basis. We also obtain cash, letters of credit, or other acceptable forms of security from customers to provide credit support, where appropriate, based on our financial analysis of the customer and the contractual terms and conditions applicable to each transaction.

10. Impairment and Restructuring Charges

During 2014, we determined that we had impaired long-lived assets and, as a result, recorded pre-tax impairment charges of \$4.7 million. Of this amount, \$2.4 million related to engineering and design assets for projects we determined were no longer economically viable, \$1.4 million related to information technology and office assets associated with fourth quarter 2014 restructuring activities, and \$0.9 million related to other long-lived assets. The \$5.4 million carrying value of these long-lived assets was reduced to fair market value of \$0.7 million. We used internally developed assumptions in determining the fair value of these long-lived assets, which are classified within level 3 of the fair value hierarchy.

For the years ended December 31, 2016, 2015, and 2014, restructuring and restructuring-related expenses amounted to \$2.4 million, \$1.7 million and \$3.0 million, respectively. Restructuring expenses in 2016 and 2015 were primarily comprised of professional services and advisory costs related to our cost reset initiative. Restructuring expenses for 2014 were comprised of severance expenses of \$2.5 million and \$0.4 million of other restructuring related costs, which are recorded primarily in selling, general and administrative expenses.

11. Income Taxes

Income taxes are recorded utilizing an asset and liability approach. This method gives consideration to the future tax consequences associated with the differences between the financial accounting and tax basis of the assets and liabilities as well as the ultimate realization of any deferred tax asset resulting from such differences.

Our income tax benefit was a \$92.0 million, a \$6.9 million expense, and a \$5.1 million expense for the years ended December 31, 2016, 2015, and 2014, respectively. Our effective tax rates for the years ended December 31, 2016, 2015, and 2014 were a 724.8% benefit, a 124.3% expense, and a 80.9% expense, respectively. Our effective tax rates differed from the U.S. corporate statutory tax rate of 35.0%, primarily due to the mix of pre-tax income or loss earned in certain jurisdictions and the change in our valuation allowance. Excluding the change in our valuation allowance, our effective tax rates would have been a 38.9% benefit, a 75.4% benefit, and a 229.0% expense for the years ended December 31, 2016, 2015, and 2014, respectively.

The provision for income taxes is comprised of the following:

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Current tax benefit (expense):			
U.S.	\$ (4,460)	\$ (34)	\$ (550)
Foreign	(2,469)	(10,023)	(7,091)
Total current tax benefit (expense)	<u>(6,929)</u>	<u>(10,057)</u>	<u>(7,641)</u>
Deferred tax benefit (expense):			
U.S.	91,626	2,683	—
Foreign	7,257	431	2,523
Total deferred tax benefit (expense)	<u>98,883</u>	<u>3,114</u>	<u>2,523</u>
Total income tax benefit (expense)	<u>\$ 91,954</u>	<u>\$ (6,943)</u>	<u>\$ (5,118)</u>

Income (loss) before income taxes is comprised of the following:

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Income (loss) before income taxes:			
U.S.	\$ (4,556)	\$ (41,455)	\$ 8,391
Foreign	17,242	35,869	(2,063)
Total income (loss) before income taxes	<u>\$ 12,686</u>	<u>\$ (5,586)</u>	<u>\$ 6,328</u>

The provision for income taxes differs from the amount computed by applying the U.S. corporate statutory income tax rate to income (loss) before income taxes for the reasons set forth below:

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Income taxes at the statutory rate	\$ (4,440)	\$ 1,955	\$ (2,215)
Foreign tax rate differential	4,779	1,639	(11,777)
State taxes, net of federal benefit	(597)	315	(140)
Permanent differences	889	88	(182)
Tax credits	4,924	46	535
Alternative minimum tax	(593)	—	(541)
Transaction costs	(753)	—	—
Uncertain tax positions	1,809	(126)	429
Valuation allowance	87,020	(11,156)	9,370
Other	(1,084)	296	(597)
Income tax benefit (expense)	<u>\$ 91,954</u>	<u>\$ (6,943)</u>	<u>\$ (5,118)</u>

	Years Ended December 31,		
	2016	2015	2014
Income taxes at the statutory rate	(35.0)%	(35.0)%	(35.0)%
Foreign tax rate differential	37.7	(29.3)	(186.1)
State taxes, net of federal benefit	(4.7)	(5.6)	(2.2)
Permanent differences	7.0	(1.6)	(2.9)
Tax credits	38.8	(0.8)	8.5
Alternative minimum tax	(4.7)	—	(8.5)
Transaction costs	(5.9)	—	—
Uncertain tax positions	14.3	2.3	6.7
Valuation allowance	685.9	199.7	148.1
Other	(8.6)	(5.4)	(9.5)
Effective tax rate	<u>724.8 %</u>	<u>124.3 %</u>	<u>(80.9)%</u>

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as net operating loss and tax credit carryforwards. The tax effects of temporary differences are comprised of the following:

	December 31,	
	2016	2015
	(In thousands)	
Deferred tax assets:		
Net operating loss carryforwards	\$ 128,408	\$ 110,569
Tax credit carryforwards	11,461	3,287
Inventory	8,568	7,832
Benefit plans accrual	38,736	27,435
Other accruals and reserves	11,278	26,378
	<u>198,451</u>	<u>175,501</u>
Valuation allowance for deferred tax assets	(44,695)	(100,149)
Total deferred tax assets	<u>\$ 153,756</u>	<u>\$ 75,352</u>
Deferred tax liabilities:		
Property, plant, and equipment	\$ (148,164)	\$ (79,237)
Intangible assets	(153,380)	(1,318)
Investment in subsidiaries	(56,701)	—
Total deferred tax liabilities	<u>(358,245)</u>	<u>(80,555)</u>
Net deferred tax liabilities	<u>\$ (204,489)</u>	<u>\$ (5,203)</u>

	December 31,	
	2016	2015
	(In thousands)	
Net deferred tax liabilities consist of:		
Non-current deferred tax assets	\$ 6,907	\$ 3,867
Non-current deferred tax liabilities	(211,396)	(9,070)
Net deferred tax liabilities	<u>\$ (204,489)</u>	<u>\$ (5,203)</u>

As of December 31, 2016, we had \$376.5 million of net operating loss carryforwards, of which \$120.1 million relates to foreign jurisdictions and \$256.4 million relates to the U.S., which will expire beginning in 2024 through 2035, if not utilized. We expect to generate sufficient taxable income in future years that will allow utilization of the portion of the net operating loss carryforwards for which no valuation allowance has been provided.

We record a valuation allowance when it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. As of December 31, 2016 and December 31, 2015, a valuation allowance of \$44.7 million and \$100.1 million, respectively, has been provided for net operating loss carryforwards and other deferred tax assets. During the year ended December 31, 2016, we released \$55.5 million of the valuation allowances, of which \$87.0 million primarily related to our U.S. net operating loss carryforwards and other deferred tax assets, partially offset by \$31.3 million of new valuation allowances assumed in connection with the Arizona Chemical Acquisition. As of December 31, 2016, \$30.5 million and \$8.5 million of the \$44.7 million valuation allowance relates to net deferred tax assets in France and United Kingdom, respectively. We increased our valuation allowance by \$9.7 million in 2015, which includes \$13.9 million related to current period net operating losses in the U.S. jurisdiction, partially offset by a \$2.7 million decrease related to the tax effect of unrealized pension gains, and a \$1.5 million decrease related to changes in other comprehensive income (loss). As of December 31, 2015, \$87.9 million of the \$100.1 million valuation allowance relates to net deferred tax assets in the U.S. We consider the reversal of deferred tax liabilities within the net operating loss carryforward period, projected future taxable income and tax planning strategies in making this assessment. Excluding the change in our valuation allowance, our effective tax rates would have been a benefit of 38.9% and 75.4% for the years ended December 31, 2016 and 2015, respectively.

In purchase accounting, we recorded \$56.7 million of deferred taxes on the U.S. parent's inside basis differences of the acquired foreign assets of Arizona Chemical. For the period ending December 31, 2016, the unremitted earnings of our foreign subsidiaries are permanently reinvested in the corresponding country of origin. Accordingly, we have not provided deferred taxes for the differences between the book basis and underlying tax basis in those subsidiaries or on the foreign currency translation adjustment amounts related to such operations.

We file income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. For our U.S. federal income tax returns, the statute of limitations has expired through the tax year ended December 31, 2003. As a result of net operating loss carryforwards from 2004, the statute remains open for all years subsequent to 2003. In addition, open tax years for state and foreign jurisdictions remain subject to examination.

We recognize the tax impact of certain tax positions only when it is more likely than not those such positions are sustainable. The taxes are recorded in accordance with ASC 740-10, “*Accounting for Uncertainty in Income Taxes*,” which prescribes the minimum recognition threshold.

As of December 31, 2016 and December 31, 2015, we had \$24.5 million and \$4.3 million, respectively, of unrecognized tax benefits related to uncertain foreign tax positions, all of which, if recognized, would impact our effective tax rate. For the years ending December 31, 2016, 2015, and 2014, we recorded \$1.2 million, \$0.2 million, and \$0.1 million in interest and penalties related to unrecognized tax benefits within the provision for income taxes. As of December 31, 2016 and December 31, 2015, we had \$4.4 million and \$0.8 million of penalties and interest included in the total unrecognized tax benefits. We believe that no current tax positions that have resulted in unrecognized tax benefits will significantly increase or decrease within one year.

The following presents a roll forward of our unrecognized tax benefits including associated interest and penalties.

	December 31,	
	2016	2015
	(In thousands)	
Balance at January 1	\$ 4,346	\$ 4,663
Increase in current year tax positions	1,546	336
Increase in prior year tax positions	813	301
Increase due to Arizona Chemical Acquisition	23,089	—
Decrease in prior year tax positions	—	(416)
Lapse of statute of limitations	(1,946)	(538)
Settlements	(3,321)	—
Balance at December 31	<u>\$ 24,527</u>	<u>\$ 4,346</u>

12. Commitments and Contingencies

(a) Lease Commitments

We have entered into various long-term non-cancelable operating leases. Future minimum lease commitments at December 31, 2016 are as follows: 2017—\$23.2 million; 2018—\$16.4 million; 2019—\$14.3 million; 2020—\$12.2 million; 2021—\$7.6 million; and 2020 and thereafter—\$7.8 million. For the years ended December 31, 2016, 2015, and 2014, we recorded \$30.5 million, \$18.1 million and \$18.7 million in rent expense, respectively.

(b) Environmental and Safety Matters

Our finished products are not generally classified as hazardous under U.S. environmental laws. However, our operations involve the handling, transportation, treatment, and disposal of potentially hazardous materials that are extensively regulated by environmental, health and safety laws, regulations, and permit requirements. Environmental permits required for our operations are subject to periodic renewal and can be revoked or modified for cause or when new or revised environmental requirements are implemented. Changing and increasingly stringent environmental requirements can affect the manufacturing, handling, processing, distribution and use of our chemical products and the raw materials used to produce such products and, if so affected, our business and operations may be materially and adversely affected. In addition, changes in environmental requirements can cause us to incur substantial costs in upgrading or redesigning our facilities and processes, including waste treatment, disposal, and other waste handling practices and equipment.

We conduct environmental management programs designed to maintain compliance with applicable environmental requirements at all of our facilities. We routinely conduct inspection and surveillance programs designed to detect and respond to leaks or spills of regulated hazardous substances and to identify and correct identified regulatory deficiencies. However, a business risk inherent with chemical operations is the potential for personal injury and property damage claims from employees, contractors and their employees, and nearby landowners and occupants. While we believe our business operations and facilities generally are operated in compliance, in all material respects, with all applicable environmental and health and safety requirements, we cannot be sure that past practices or future operations will not result in material claims or regulatory action, require material environmental expenditures, or result in exposure or injury claims by employees, contractors and their employees, and the public. Some risk of environmental costs and liabilities are inherent in our operations and products, as it is with other companies engaged in similar businesses.

Our Paulinia, Brazil, and Belpre, Ohio, facilities are subject to a number of actual and/or potential environmental liabilities primarily relating to contamination caused by former operations at those facilities. Some environmental laws could impose on us the entire costs of cleanup regardless of fault, legality of the original disposal, or ownership of the disposal site. In some cases, the governmental entity with jurisdiction could seek an assessment for damage to the natural resources caused by contamination from those sites. Shell Chemicals has agreed, subject to certain limitations, in time and amounts, to indemnify us against most environmental liabilities related to the acquired facilities that arise from conditions existing prior to the closing.

We had no material operating expenditures for environmental fines, penalties, government imposed remedial or corrective actions in each of the years ended December 31, 2016, 2015, and 2014.

(c) Legal Proceedings

In connection with the closing of the Arizona Chemical Acquisition on January 6, 2016, we assumed responsibility for an open legal proceeding related to a claim from a former customer of Arizona Chemical. On March 21, 2011, Arizona Chemical received a claim from this former customer relating to an alleged breach of warranty and breach of contract regarding delivery of resin products during the period from 2005 through 2009. In March 2014, the jury returned a verdict against Arizona Chemical for \$70.1 million. In addition, the trial court entered two separate judgments against Arizona Chemical in April 2015 for attorneys' costs and interest. Arizona Chemical filed appeals with the Florida First District Court of Appeal to dispute all three judgments. On May 20, 2016, the appellate court affirmed the jury's verdict on the merits in the underlying case. On July 18, 2016, the appellate court reversed and remanded the trial court's judgment related to interest. On July 19, 2016, the appellate court affirmed the trial court's judgment related to the attorneys' costs. On August 26, 2016, the parties entered into a Mutual Release and Settlement Agreement resolving all matters between the parties. The judgment was fully satisfied by the insurance company in accordance with the terms of the agreement. On September 27, 2016, the Florida Supreme Court issued an order voluntarily dismissing all appeals filed in the matter.

We received an initial notice from the tax authorities in Brazil during the fourth quarter of 2012 in connection with tax credits that were generated from the purchase of certain goods which were subsequently applied by us against taxes owed. The tax authorities are currently assessing R\$6.1 million or \$1.9 million (converted at the December 31, 2016 exchange rate). We have appealed the assertion by the tax authorities in Brazil that the goods purchased were not eligible to earn the credits. While the outcome of this proceeding cannot be predicted with certainty, we do not expect this matter to have a material adverse effect upon our financial position, results of operations, or cash flows.

On January 28, 2014, we executed a definitive agreement (the “Combination Agreement”) to combine with the SBC operations of Taiwan-based LCY Chemical Corp. (“LCY”). The Combination Agreement called for LCY to contribute its SBC business in exchange for newly issued shares in the combined company, such that our existing stockholders and LCY would each own 50% of the outstanding shares of the combined enterprise.

On June 30, 2014, we notified LCY that our Board of Directors intended to withdraw its recommendation to our stockholders to approve the Combination Agreement unless the parties could agree upon mutually acceptable revised terms to the Combination Agreement. This notice cited the decline in operating results for LCY’s SBC business in the first quarter of 2014 and a related decline in forecasted results thereafter, together with the decline in our stock price and negative reactions from our stockholders. Following our notification of our Board’s intention to change its recommendation, the parties engaged in discussions to determine whether they could mutually agree to changes to the terms of the Combination Agreement that would enable our Board to continue to recommend that our stockholders approve the Combination Agreement. The parties engaged in numerous discussions subsequent to June 30, 2014 regarding possible revisions to the terms of the Combination Agreement.

On July 31, 2014, an explosion occurred in a pipeline owned by LCY in Kaohsiung, Taiwan, causing substantial property damage and loss of life, and numerous governmental and private investigations and claims have been initiated and asserted against LCY. On August 4, 2014, LCY notified us that it would no longer negotiate, and it would not agree to, any revisions to the terms of the Combination Agreement. On August 6, 2014, our Board withdrew its recommendation that our stockholders approve the Combination Agreement. On August 8, 2014, we received notice from LCY that LCY had exercised its right to terminate the Combination Agreement.

The provisions of the Combination Agreement provide for us to pay LCY a \$25.0 million break-up fee upon a termination of the Combination Agreement following a withdrawal of our Board’s recommendation, unless an LCY material adverse effect has occurred and is continuing at the time of the withdrawal of our Board’s recommendation. In LCY’s notice terminating the Combination Agreement, LCY requested payment of such \$25.0 million termination fee. On October 6, 2014, LCY filed a lawsuit against us in connection with our refusal to pay the \$25.0 million termination fee. We believe that the impact upon LCY of the July 31, 2014 explosion in a gas pipeline in Kaohsiung, Taiwan, constitutes an LCY material adverse effect as defined in the Combination Agreement, and we have notified LCY that accordingly we are not obligated to pay the termination fee. On July 23, 2015, LCY’s lawsuit was dismissed from the Delaware federal court on jurisdictional grounds. LCY has the right to re-file its suit in Delaware state court. As of the date of this filing, they had not re-filed their suit. While the ultimate resolution of this matter cannot be predicted with certainty, we do not expect any material adverse effect upon our financial position, results of operations, or cash flows from the ultimate outcome of this matter.

We and certain of our subsidiaries, from time to time, are parties to various other legal proceedings, claims, and disputes that have arisen in the ordinary course of business. These claims may involve significant amounts, some of which would not be covered by insurance. A substantial settlement payment or judgment in excess of our accruals could have a material adverse effect on our financial position, results of operations or, cash flows. While the outcome of these proceedings cannot be predicted with certainty, we do not expect any of these existing matters, individually or in the aggregate, to have a material adverse effect upon our financial position, results of operations, or cash flows.

(d) Asset Retirement Obligations (“ARO”)

The changes in the aggregate carrying amount of our ARO liability are as follows:

	December 31,	
	2016	2015
	(In thousands)	
Beginning balance	\$ 10,078	\$ 10,394
Obligations assumed in the Arizona Chemical Acquisition	1,908	—
Additional accruals	2,146	—
Accretion expense	375	425
Obligations settled	(5,511)	(329)
Foreign currency translation	(133)	(412)
Ending balance	<u>\$ 8,863</u>	<u>\$ 10,078</u>

For a portion of our ARO liability related to the decommissioning of the coal boilers at our Belpre, Ohio, facility, we recorded a liability and corresponding receivable of \$3.5 million and \$3.7 million as of December 31, 2016 and 2015, respectively, pursuant to the indemnity included in the February 2001 separation agreement from Shell Chemical.

(e) Production downtime

In the first quarter of 2014, we experienced weather-related downtime at our Belpre, Ohio facility. In addition, our facility in Berre, France, experienced an operating disruption resulting from a small fire that impacted one of the production lines at this facility. We incurred \$10.3 million of net costs in the year ended December 31, 2014 associated with these two events.

13. Employee Benefits

U.S. Retirement Benefit Plans. We have two U.S. noncontributory defined benefit pension plans (“*U.S. Pension Plans*”). Our Polymer segment U.S. Pension Plan covers all salaried and hourly wage employees in the U.S. who were employed by us on or before December 31, 2005. Employees who began their employment with us after December 31, 2005 are not covered by our Pension Plan. The benefits under the Pension Plan are based primarily on years of service and employees’ pay near retirement. For our employees who were employed as of March 1, 2001 and who: (1) were previously employed by Shell Chemicals; and (2) elected to transfer their pension assets to us, we consider the total combined Shell Chemicals and Kraton service when calculating the employee’s pension benefit. For those employees who: (1) elected to retire from Shell Chemicals; or (2) elected not to transfer their pension benefit, only Kraton service (since March 1, 2001) is considered when calculating benefits. Our Chemical segment U.S. Pension Plan covers all U.S. employees hired prior to July 2004 and certain retirees of the Company participate in International Paper’s defined benefit pension plans. International Paper remains responsible for all benefits related to years of service prior to December 31, 2007. The Company implemented its own defined benefit pension plan for then eligible U.S. employees on March 1, 2007.

Non-U.S. Retirement Benefit Plans. The Company sponsors defined benefit pension and retirement plans in certain foreign subsidiaries. Generally, the Company’s non-U.S. defined benefit pension plans are funded using the projected benefit as a target in countries where funding of benefit plans is required.

The 2016 measurement date of the Pension Plan’s assets and obligations was December 31, 2016. Based on the funded status and a related change in accrued pension obligations we reported an increase in our accumulated other comprehensive loss of approximately \$4.1 million and a decrease of \$3.2 million as of December 31, 2016 and 2015, respectively, for our U.S. Pension Plans. We reported an increase in our accumulated other comprehensive loss of approximately \$13.3 million as of December 31, 2016 for our non-U.S. Pension Plans.

Information concerning the pension obligation, plan assets, amounts recognized in our financial statements and underlying actuarial and other assumptions are as follows:

	U.S. Plans		Non-U.S. Plans	
	December 31,		December 31,	
	2016	2015	2016	2015
	(In thousands)			
Change in benefit obligation:				
Benefit obligation at beginning of period	\$ 152,511	\$ 158,885	\$ 1,711	\$ —
Service cost	3,288	3,528	2,239	—
Interest cost	7,416	6,483	3,121	—
Participant contributions	—	—	140	—
Benefits paid	(9,753)	(4,724)	(3,199)	—
Expenses and taxes	—	—	(50)	—
Plan amendments	—	—	322	—
Acquisition	14,118	—	98,651	—
Transfers	—	—	2,399	—
Actuarial (gain) / loss	4,363	(11,661)	21,914	—
Exchange rate gain (loss)	—	—	(13,759)	—
Benefit obligation at end of period	171,943	152,511	113,489	—
Change in plan assets:				
Fair value at beginning of period	97,561	104,792	—	—
Return on plan assets	6,737	(4,267)	10,763	—
Employer contributions	1,396	1,760	3,685	—
Participant contributions	—	—	140	—
Benefits paid	(9,753)	(4,724)	(3,199)	—
Expenses and taxes	—	—	(50)	—
Settlements	—	—	(51)	—
Acquisition	9,166	—	68,130	—
Transfers	—	—	2,399	—
Exchange rate gain (loss)	—	—	(8,986)	—
Fair value at end of period	105,107	97,561	72,831	—
Funded status at end of period	\$ (66,836)	\$ (54,950)	\$ (40,658)	\$ —
Amounts recognized on balance sheet:				
Current liabilities	\$ —	\$ —	\$ (726)	\$ —
Noncurrent liabilities	(66,836)	(54,950)	(39,932)	—
	\$ (66,836)	\$ (54,950)	\$ (40,658)	\$ —
Amounts recognized in accumulated other comprehensive loss:				
Prior service costs	\$ —	\$ —	\$ 307	\$ —
Net actuarial loss	53,604	49,491	12,972	—
Amounts recognized in accumulated other comprehensive loss	\$ 53,604	\$ 49,491	\$ 13,279	\$ —
Accumulated benefit obligations	\$ 160,625	\$ 140,848	\$ 109,219	\$ —

Estimated Future Cash Flows. The following employer contributions and benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

	<u>U.S. Plans</u>	<u>Non-U.S. Plans</u>
	<u>(In thousands)</u>	
Employer Contributions		
2017 Employer contribution	\$ 7,715	\$ 4,956
Benefit Payments		
2017	\$ 5,932	\$ 2,093
2018	6,325	2,027
2019	6,731	1,991
2020	7,094	2,282
2021	7,591	2,172
Years 2022-2026	45,865	12,877
	<u>\$ 79,538</u>	<u>\$ 23,442</u>

Net Periodic Pension Costs. Net periodic pension costs consist of the following components:

	<u>U.S. Plans</u>			<u>Non-U.S. Plans</u>		
	<u>Years Ended December 31,</u>			<u>Years Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
	<u>(In thousands)</u>					
Service cost benefits earned during the period	\$ 3,288	\$ 3,528	\$ 2,800	\$ 2,239	\$ —	\$ —
Interest on prior year's projected benefit obligation	7,416	6,483	6,171	3,121	—	—
Expected return on plan assets	(9,355)	(8,459)	(7,677)	(3,583)	—	—
Amortization of prior service costs	—	—	—	9	—	—
Amortization of net actuarial loss	2,868	4,239	1,841	21	—	—
Net periodic pension costs	<u>\$ 4,217</u>	<u>\$ 5,791</u>	<u>\$ 3,135</u>	<u>\$ 1,807</u>	<u>\$ —</u>	<u>\$ —</u>

The estimated losses that will be amortized from accumulated other comprehensive loss into net periodic benefit cost in fiscal 2017 are as follows:

	<u>U.S. Plans</u>	<u>Non-U.S. Plans</u>
	<u>(In thousands)</u>	
Amortization of prior service costs	\$ —	\$ 11
Amortization of net actuarial loss	3,600	195
	<u>\$ 3,600</u>	<u>\$ 206</u>

Significant Assumptions. Discount rates are determined annually and are based on rates of return of high-quality long-term fixed income securities currently available and expected to be available during the maturity of the pension benefits.

	U.S. Plans		Non-U.S. Plans	
	December 31,		December 31,	
	2016	2015	2016	2015
Weighted average assumptions used to determine benefit obligations:				
Measure date	12/31/2016	12/31/2015	12/31/2016	12/31/2015
Discount rate	4.29%	4.55%	2.39%	—%
Rates of increase in salary compensation level	3.00%	3.00%	2.78%	—%
Weighted average assumptions used to determine net periodic benefit cost:				
Discount rate	4.57%	4.12%	3.59%	—%
Rates of increase in salary compensation level	3.00%	3.00%	3.11%	—%
Expected long-term rate of return on plan assets	8.36%	8.50%	4.07%	—%

Our management relied in part on actuarial studies in establishing the expected long-term rate of return on assets assumption. The studies include a review of anticipated future long-term performance of individual asset classes and consideration of the appropriate asset allocation strategy given the anticipated requirements of the Pension Plans to determine the average rate of earnings expected on the funds invested to provide for the Pension Plan benefits. While the studies give appropriate consideration to recent fund performance and historical returns, the assumption is primarily a long-term, prospective rate. Based on our most recent study, the expected long-term return assumption for our U.S. Pension Plans effective for 2016 will be 8.4% and 4.1% for our non-U.S. Pension Plans.

Pension Plan Assets. We maintain target allocation percentages among various asset classes based on an investment policy established for our Pension Plans. The target allocation is designed to achieve long term objectives of return, while mitigating downside risk and considering expected cash flows. Our investment policy is reviewed from time to time to ensure consistency with our long term objective. Our Pension Plan asset allocations at December 31, 2016 and 2015 by asset category are as follows:

	U.S. Plans			Non-U.S. Plans		
	Target Allocation	Percentage of Plan Assets at December 31,		Target Allocation	Percentage of Plan Assets at December 31,	
	2016	2016	2015	2016	2016	2015
Equity	50.0%	53.8%	57.1%	50.0%	28.9%	—%
Debt	30.0	36.8	33.5	40.0	30.4	—
Insurance	—	—	—	—	40.5	—
Other	20.0	9.4	9.4	10.0	0.2	—
Total	100.0%	100.0%	100.0%	100.0%	100.0%	—%

No pension assets were invested in debt or equity securities of Kraton at December 31, 2016 and 2015.

The inputs and methodology used for valuing securities are not an indication of the risk associated with investing in those securities. The following is a description of the primary valuation methodologies used for assets measured at fair value:

- Common/Collective Trust Funds: Valued at the net asset value per unit held at year end as quoted by the funds.
- Mutual Funds, Real Estate Funds, and Other Funds: Valued at the net asset value of shares held at year end as quoted in the active market.
- Insurance contracts for purposes of funding pension benefits.

A summary of total investments for our pension plan assets measured at fair value is presented below. See Note 9 *Fair Value Measurements, Financial Instruments, and Credit Risk* to the consolidated financial statements for a detailed description of fair value measurements and the hierarchy established for Level 1, 2, and 3 valuation inputs.

Pension Plan Assets Fair Value Measurements at December 31, 2016				
Total	Quoted Prices In Active Markets Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
(In thousands)				
Cash and Cash Equivalents	\$ 9,912	\$ 9,912	\$ —	\$ —
Equity	77,644	24,270	53,374	—
Debt	60,857	16,897	43,960	—
Insurance	29,525	—	—	29,525
Total	\$ 177,938	\$ 51,079	\$ 97,334	\$ 29,525

Pension Plan Assets Fair Value Measurements at December 31, 2015				
Total	Quoted Prices In Active Markets Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
(In thousands)				
Cash and Cash Equivalents	\$ 70	\$ 70	\$ —	\$ —
Equity	55,692	21,188	34,504	—
Debt	32,700	11,031	21,669	—
Other	9,099	9,099	—	—
Total	\$ 97,561	\$ 41,388	\$ 56,173	\$ —

The following is a summary of changes in fair value of our pension plan Level 3 investments for the year ended December 31, 2016.

	Level 3 Investments (In thousands)
December 31, 2015	\$ —
Return on plan assets	7,075
Employer contributions	1,389
Participant contributions	99
Actual benefits paid from plan	(155)
Actual expenses and taxes	(51)
Acquisition	19,359
Transfers	2,399
Exchange rate gain (loss)	(590)
December 31, 2016	\$ 29,525

(b) Other Retirement Benefit Plans. Certain employees were eligible to participate in non-qualified defined benefit restoration plans (“BRP”), which were intended to restore certain benefits under the Pension Plan in the U.S. and the Kraton Savings Plan in the U.S., that would otherwise be lost due to certain limitations imposed by law on tax-qualified plans.

On November 26, 2014, the Company terminated the Pension Plan BRP effective November 30, 2014. As a result of this termination, future benefit accruals were eliminated and the lump sum amount for each participant was paid in December 2015. As such, a curtailment event was recognized at December 1, 2014 resulting in a curtailment expense of \$0.4 million in the year ended December 31, 2014 and a settlement expense of \$0.8 million in the year ended December 31, 2015.

For the years ended December 31, 2015 and 2014, we made contributions related to the Pension Plan BRP of \$2.3 million and \$0.1 million, respectively. Due to the termination and final settlement, there was no remaining liability for this plan as of December 31, 2015.

(c) Postretirement Benefits Other Than Pensions. Health and welfare benefits are provided to benefit eligible employees in the U.S. who retire from Kraton and were employed by us prior to January 1, 2006. Retirees under the age of 65 are eligible for the same medical, dental, and vision plans as active employees, but with an annual cap on premiums that vary based on years of service and ranges from \$7,000 to \$10,000 per employee. Our subsidy schedule for medical plans is based on accredited service at retirement. Retirees are responsible for the full cost of premiums for postretirement dental and vision coverage. In general, the plans stipulate that health and welfare benefits are paid as covered expenses as incurred. We accrue the cost of these benefits during the period in which the employee renders the necessary service.

Employees who were retirement eligible as of February 28, 2001, have the option to participate in either Shell Chemicals' or Kraton's postretirement health and welfare plans.

ASC 715, "Compensation-Retirement Benefits," requires that we measure the plans' assets and obligations that determine our funded status at the end of each fiscal year and the 2016 measurement date of the plans' assets and obligations was December 31, 2016. We are also required to recognize as a component of accumulated other comprehensive loss the changes in funded status that occurred during the year that are not recognized as part of new periodic benefit cost.

Based on the funded status of our postretirement benefit plan as of December 31, 2016 and 2015, we reported an increase in our accumulated other comprehensive loss of approximately \$0.8 million and a decrease of \$3.4 million, respectively, and a related change in accrued pension obligations.

Information concerning the plan obligation, the funded status and amounts recognized in our financial statements and underlying actuarial and other assumptions are as follows:

	December 31,	
	2016	2015
	(In thousands)	
Change in benefit obligation:		
Benefit obligation at beginning of period	\$ 30,867	\$ 32,444
Service cost	543	597
Interest cost	1,398	1,271
Benefits and expenses paid (premiums)	(929)	(825)
Actuarial (gain) loss	1,368	(2,620)
Benefit obligation at end of period	<u>33,247</u>	<u>30,867</u>
Change in plan assets (1):		
Fair value at beginning of period	—	—
Employer contributions	929	825
Benefits paid	(929)	(825)
Fair value at end of period	—	—
Funded status at end of year	<u>\$ 33,247</u>	<u>\$ 30,867</u>

(1) Shell Chemicals has committed to a future cash payment related to retiree medical expenses based on a specified dollar amount per employee, if certain contractual commitments are met. We have recorded an asset of approximately \$9.1 million and \$10.1 million as our estimate of the present value of this commitment as of December 31, 2016 and 2015, respectively.

	December 31,	
	2016	2015
	(In thousands)	
Amounts recognized in the balance sheet:		
Current liabilities	\$ (1,587)	\$ (1,341)
Noncurrent liabilities	(31,660)	(29,526)
	<u>\$ (33,247)</u>	<u>\$ (30,867)</u>
Amounts recognized in accumulated other comprehensive loss:		
Net actuarial loss	9,067	8,307
	<u>\$ 9,067</u>	<u>\$ 8,307</u>

Net periodic benefit costs consist of the following components:

	Years Ended December 31,		
	2016	2015	2014
	(In thousands)		
Service cost	\$ 543	\$ 597	\$ 498
Interest cost	1,398	1,271	1,275
Amortization of net actuarial loss	608	757	416
Net periodic benefit costs	<u>\$ 2,549</u>	<u>\$ 2,625</u>	<u>\$ 2,189</u>

	December 31,	
	2016	2015
Weighted average assumptions used to determine benefit obligations:		
Measurement date	12/31/2016	12/31/2015
Discount rate	4.18%	4.45%
Rates of increase in salary compensation level	N/A	N/A
Weighted average assumptions used to determine net periodic benefit cost:		
Discount rate	4.45%	4.02%
Rates of increase in salary compensation level	N/A	N/A
Expected long-term rate of return on plan assets	N/A	N/A

	December 31,	
	2016	2015
Assumed health care cost trend rates:		
Health care cost trend rate assumed for next year	7.00%	7.50%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2021	2021

Discount rates are determined annually and are based on rates of return of high-quality long-term fixed income securities currently available and expected to be available during the maturity of the postretirement benefit plan.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A 1.0% change in assumed health care cost trend rates would have the following effect (in thousands):

	1% Increase	1% Decrease
Effect on total of service and interest cost components	\$ 19	\$ (24)
Effect on postretirement benefit obligation	\$ 415	\$ (481)

(d) *Polymer Segment Savings Plan.* The Polymer Savings Plan, as adopted on March 1, 2001, covers substantially all U.S. employees, including executive officers. Through automatic payroll deduction, participants have the option to defer up to 60% of eligible earnings in any combination of pretax and/or post-tax contributions, subject to annual dollar limitations set forth in the Internal Revenue Code. Under this plan, we have two types of employer contributions:

- (1) We make standard matching contributions of 50.0% of the first 6.0% contributed by the employee after completing one year of service, and we make matching contributions of 100.0% of the first 6.0% contributed by the employee after completing five years of service.
- (2) We make enhanced employer contributions of 3.0% for employees who have less than five years of service and a 4.0% contribution for employees who have five or more years of service.

For our employees who were employed as of February 28, 2001, and who were previously employed by Shell Chemicals, we recognize their Shell Chemicals years of service for purposes of determining employer contributions under our Plan. Our contributions to the plan for the years ended December 31, 2016, 2015, and 2014, were \$4.5 million, \$4.1 million, and \$4.0 million, respectively.

(e) *Chemical Segment Savings Plan.* The Chemical Savings plan, adopted in 2007, covers all U.S.-based employees. The Savings Plan is a tax-qualified 401(k) plan, and we have two types of employer contributions:

- (1) We make standard matching contributions of 70% for the first 4% of the employee's contribution and 50% for up to an additional 4%.

(2) We maintain an annual profit-sharing award plan based on the Company's performance. The award is intended to be variable in nature and it could be less or more than 4% of each salaried employee's salary depending upon the performance of the business.

The Company's contributions under this plan amounted to \$3.0 million for the year ended December 31, 2016.

14. Industry Segment and Foreign Operations

Historically, we have reported one segment for the manufacturing and marketing of engineered polymers. Commensurate with the acquisition on January 6, 2016, Arizona Chemical became a separate operating segment with our operations managed through two operating segments: (i) Polymer segment and (ii) Chemical segment. In accordance with the provisions of ASC 280, "Segment Reporting," our chief operating decision-maker has been identified as the President and Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the entire company.

- *Polymer Segment.* Our Polymer segment is comprised of our SBCs and other engineered polymers business.
- *Chemical Segment.* Our Chemical segment is comprised of our pine-based specialty products business.

Our chief operating decision maker uses operating income (loss) as the primary measure of each segment's operating results in order to allocate resources and in assessing the company's performance. In accordance with ASC 280, *Segment Reporting*, we have presented operating income (loss) for each segment. The following table summarizes our operating results by segment. We currently do not have sales between segments.

	Year Ended December 31, 2016			Year Ended December 31, 2015	Year Ended December 31, 2014
	Polymer	Chemical ⁽¹⁾	Total	Total ⁽²⁾	Total ⁽²⁾
	(In thousands)				
Revenue	\$ 1,024,737	\$ 719,367	\$ 1,744,104	\$ 1,034,626	\$ 1,230,433
Cost of goods sold	750,112	514,967	1,265,079	805,970	993,366
Gross profit	274,625	204,400	479,025	228,656	237,067
Operating expenses:					
Research and development	28,322	11,169	39,491	31,024	31,370
Selling, general, and administrative	108,482	69,143	177,625	117,308	104,209
Depreciation and amortization	59,930	65,728	125,658	62,093	66,242
Impairment of long-lived assets	—	—	—	—	4,731
Operating income	<u>\$ 77,891</u>	<u>\$ 58,360</u>	136,251	18,231	30,515
Disposition and exit of business activities			28,416	—	—
Loss on extinguishment of debt			(13,423)	—	—
Earnings of unconsolidated joint venture			394	406	407
Interest expense, net			(138,952)	(24,223)	(24,594)
Income (loss) before income taxes			<u>\$ 12,686</u>	<u>\$ (5,586)</u>	<u>\$ 6,328</u>

(1) Our Chemical segment operating results were impacted by \$24.7 million of amortization of step-up to fair market value of their inventories, and \$41.2 million of higher depreciation and amortization as a result of purchase accounting adjustments for property, plant, and equipment and intangibles.

(2) Our totals for the years ended December 31, 2015 and 2014 are representative of only our Polymer segment.

The following table presents long-lived assets including goodwill and total assets.

	December 31, 2016			December 31, 2015		
	Polymer	Chemical	Total	Polymer	Chemical	Total
(In thousands)						
Property, plant, and equipment, net	\$ 548,994	\$ 357,728	\$ 906,722	\$ 517,673	\$ —	\$ 517,673
Investment in unconsolidated joint venture	\$ 11,195	\$ —	\$ 11,195	\$ 11,628	\$ —	\$ 11,628
Goodwill	\$ —	\$ 770,012	\$ 770,012	\$ —	\$ —	\$ —
Total assets	\$1,127,273	\$1,779,372	\$2,906,645	\$1,079,235	\$ —	\$1,079,235

During the years ended December 31, 2016, 2015, and 2014, no single customer accounted for 10.0% or more of our total revenue.

For geographic reporting, revenue is attributed to the geographic location in which the customers' facilities are located. Long-lived assets consist primarily of property, plant, and equipment, which are attributed to the geographic location in which they are located and presented at historical cost.

Following is a summary of revenue by geographic region:

	Years Ended December 31,		
	2016	2015	2014
(In thousands)			
Revenue:			
United States	\$ 656,233	\$ 324,103	\$ 380,620
Germany	171,257	121,346	163,065
All other countries	916,614	589,177	686,748
	<u>\$ 1,744,104</u>	<u>\$ 1,034,626</u>	<u>\$ 1,230,433</u>

Following is a summary of long-lived assets by geographic region:

	December 31,	
	2016	2015
(In thousands)		
Long-lived assets, at cost:		
United States	\$ 789,067	\$ 497,653
Taiwan	167,907	135,410
France	117,965	112,767
Brazil	73,017	56,344
Germany	60,568	56,292
All other countries	109,616	41,364
	<u>\$ 1,318,140</u>	<u>\$ 899,830</u>

Our capital expenditures for the Polymer segment, excluding capital expenditures by the KFPC joint venture, were \$59.4 million and \$57.1 million during the year ended December 31, 2016 and 2015, respectively, and capital expenditures for our Chemical segment were \$39.8 million during the year ended December 31, 2016.

15. Related Party Transactions

We own a 50.0% equity investment in a SBC manufacturing joint venture in Kashima, Japan. Our due to related party liability on the consolidated balance sheet is related to this joint venture, and the purchases from the joint venture amounted to \$30.3 million, \$30.4 million, and \$40.3 million for the years ended December 31, 2016, 2015, and 2014, respectively.

We own a 50% variable interest in KFPC, an HSBC manufacturing joint venture in Mailiao, Taiwan. The KFPC joint venture is fully consolidated in our financial statements, and our joint venture partner, Formosa Petrochemical Corporation (“FPCC”), is a related party affiliate. Under the terms of the joint venture agreement, FPCC is to provide certain site services and raw materials to KFPC. Charges from and amounts due to FPCC are immaterial through the period ended December 31, 2016. See Note 16 *Variable Interest Entity*, for further discussion related to the KFPC joint venture.

In 2015, one of our board members, Steven Demetriou, was appointed as the Chief Executive Officer of Jacobs Engineering, which supplies site maintenance and engineering services for our Belpre, Ohio, facility. Our total purchases from Jacobs Engineering were \$12.0 million and \$12.4 million for the years ended December 31, 2016 and 2015, respectively, and our outstanding payable to them was \$0.5 million as of December 31, 2016.

16. Variable Interest Entity

We hold a variable interest in a joint venture with FPCC to build, own and operate a 30 kiloton HSBC plant at FPCC’s petrochemical site in Mailiao, Taiwan. Kraton and FPCC are each 50% owners of the joint venture company, KFPC. Under the provisions of an offtake agreement with KFPC, we have exclusive rights to purchase all production from KFPC. Additionally, the agreement requires us to purchase a minimum of eighty percent of the plant production capacity each year at a defined fixed margin. This offtake agreement represents a variable interest that provides us the power to direct the most significant activities of KFPC and exposes us to the economic variability of the joint venture. As such, we have determined that we are the primary beneficiary of this variable interest entity, and therefore, we have consolidated KFPC in our financial statements and reflected FPCC’s 50% percent ownership as a noncontrolling interest.

The following table summarizes the carrying amounts of assets and liabilities as of December 31, 2016 and 2015 for KFPC before intercompany eliminations. See Note 8 *Long Term Debt*, for further discussion related to the KFPC Loan Agreement executed on July 17, 2014.

	December 31, 2016	December 31, 2015
	(In thousands)	
Cash and cash equivalents	\$ 14,150	\$ 9,315
Other current assets	13,385	6,922
Property, plant and equipment	167,579	135,230
Intangible assets	9,403	9,203
Other long-term assets	2,495	1,424
Total assets	<u>\$ 207,012</u>	<u>\$ 162,094</u>
Current portion of long-term debt	11,585	—
Current liabilities	26,743	17,057
Long-term debt	104,012	76,534
Total liabilities	<u>\$ 142,340</u>	<u>\$ 93,591</u>

17. Supplemental Guarantor Information

Prior to the consummation of the Arizona Chemical Acquisition, certain of our wholly-owned domestic subsidiaries became co-registrants on our shelf registration statement on Form S-3 that was filed in August 2015 (the “Form S-3”) pursuant to which such subsidiaries may in the future be issuers or guarantors of registered debt securities. As a result, we are required by the rules of the SEC to provide certain separate financial information with respect to the subsidiary issuers and guarantors that are co-registrants on the Form S-3 (which subsidiaries do not include any entities that became our subsidiary as a result of the subsequent consummation of the Arizona Chemical Acquisition). As of December 31, 2016, neither we nor any of our subsidiaries had any registered debt securities outstanding. In January 2016, Kraton Polymers LLC and its wholly-owned financing subsidiary Kraton Polymers Capital Corporation issued the 10.5% Senior Notes in a private offering, which notes are fully and unconditionally guaranteed on a joint and several basis by Kraton Corporation, our subsidiaries that are co-registrants on the Form S-3 and certain entities that became our wholly-owned domestic subsidiaries in connection with the Arizona Chemical Acquisition. Kraton Polymers Capital Corporation has minimal assets and income. Because we have no registered debt outstanding at this time, we are presenting the following condensed consolidating financial information for the subsidiary issuers and guarantors of the 10.5% Senior Notes, which are prepared in accordance with the requirements of Rule 3-10 under Regulation S-X, to allow investors to determine the nature of the assets held by, and the operations and cash flows of, the various consolidating groups. If in the future we are no longer required by the rules of the SEC to provide separate financial information with respect to any of our subsidiaries, we will not necessarily continue presenting the below information.

KRATON CORPORATION
CONSOLIDATING BALANCE SHEET
December 31, 2016
(In thousands, except par value)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS						
Current assets:						
Cash and cash equivalents	\$ —	\$ 214	\$ 6,280	\$ 115,255	\$ —	\$ 121,749
Receivables, net of allowances	—	468	95,398	104,994	—	200,860
Inventories of products	—	(1,634)	176,301	153,329	—	327,996
Inventories of materials and supplies	—	—	13,521	8,871	—	22,392
Prepaid expense	—	6,077	20,635	9,139	—	35,851
Other current assets	—	253	8,209	29,196	—	37,658
Total current assets	—	5,378	320,344	420,784	—	746,506
Property, plant, and equipment, less accumulated depreciation	—	27,123	457,031	422,568	—	906,722
Goodwill	—	—	740,394	29,618	—	770,012
Intangible assets, less accumulated amortization	—	32,493	351,155	55,550	—	439,198
Investment in consolidated subsidiaries	616,431	2,952,279	—	—	(3,568,710)	—
Investment in unconsolidated joint venture	—	813	—	10,382	—	11,195
Debt issuance costs	—	—	3,511	—	—	3,511
Deferred income taxes	—	213	—	6,694	—	6,907
Other long-term assets	—	77,963	1,876,402	1,006,230	(2,938,001)	22,594
Total assets	\$ 616,431	\$ 3,096,262	\$ 3,748,837	\$ 1,951,826	\$ (6,506,711)	\$ 2,906,645
LIABILITIES AND STOCKHOLDERS' AND MEMBER'S EQUITY						
Current liabilities:						
Current portion of long-term debt	—	29,250	990	11,585	—	41,825
Accounts payable-trade	—	5,318	73,501	71,262	—	150,081
Other payables and accruals	—	22,266	51,488	56,644	—	130,398
Due to related party	—	—	—	14,669	—	14,669
Total current liabilities	—	56,834	125,979	154,160	—	336,973
Long-term debt, net of current portion	—	1,591,637	2,051	104,012	—	1,697,700
Deferred income taxes	—	(104,841)	277,756	38,481	—	211,396
Other long-term liabilities	—	937,569	1,142,952	1,027,819	(2,938,001)	170,339
Total liabilities	—	2,481,199	1,548,738	1,324,472	(2,938,001)	2,416,408
Commitments and contingencies (note 12)						
Stockholders' and member's equity:						
Preferred stock, \$.01 par value; 100,000 shares authorized; none issued	—	—	—	—	—	—
Common stock, \$.01 par value; 500,000 shares authorized	310	—	—	—	—	310
Additional paid in capital	361,682	—	—	—	—	361,682
Member's equity	—	616,431	2,266,840	685,439	(3,568,710)	—
Retained earnings	254,439	—	—	—	—	254,439
Accumulated other comprehensive loss	—	(1,368)	(66,741)	(90,421)	—	(158,530)
Kraton stockholders' and member's equity	616,431	615,063	2,200,099	595,018	(3,568,710)	457,901
Noncontrolling interest	—	—	—	32,336	—	32,336
Total stockholders' and member's equity	616,431	615,063	2,200,099	627,354	(3,568,710)	490,237
Total liabilities and stockholders' and member's equity	\$ 616,431	\$ 3,096,262	\$ 3,748,837	\$ 1,951,826	\$ (6,506,711)	\$ 2,906,645

KRATON CORPORATION
CONSOLIDATING BALANCE SHEET
December 31, 2015
(In thousands, except par value)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS						
Current assets:						
Cash and cash equivalents	\$ —	\$ 7,256	\$ 11,595	\$ 51,198	\$ —	\$ 70,049
Receivables, net of allowances	—	470	37,758	66,861	—	105,089
Inventories of products	—	(2,077)	149,200	116,984	—	264,107
Inventories of materials and supplies	—	—	9,880	2,258	—	12,138
Prepaid expense	—	3,413	622	2,705	—	6,740
Other current assets	—	181	3,972	19,063	—	23,216
Total current assets	—	9,243	213,027	259,069	—	481,339
Property, plant and equipment, less accumulated depreciation	—	35,923	256,663	225,087	—	517,673
Intangible assets, less accumulated amortization	—	38,721	2,053	828	—	41,602
Investment in consolidated subsidiaries	497,308	1,446,567	—	—	(1,943,875)	—
Investment in unconsolidated joint venture	—	813	—	10,815	—	11,628
Debt issuance costs	—	226	721	390	—	1,337
Deferred income taxes	—	320	—	3,547	—	3,867
Other long-term assets	—	28,314	658,253	105,444	(770,222)	21,789
Total assets	\$ 497,308	\$ 1,560,127	\$ 1,130,717	\$ 605,180	\$ (2,714,097)	\$ 1,079,235
LIABILITIES AND STOCKHOLDERS' AND MEMBER'S EQUITY						
Current liabilities:						
Current portion of long-term debt	—	—	141	—	—	141
Accounts payable-trade	—	2,030	25,450	31,857	—	59,337
Other payables and accruals	—	45,717	14,983	30,311	—	91,011
Due to related party	—	—	—	14,101	—	14,101
Total current liabilities	—	47,747	40,574	76,269	—	164,590
Long-term debt, net of current portion	—	337,560	1,493	76,538	—	415,591
Deferred income taxes	—	6,334	—	2,736	—	9,070
Other long-term liabilities	—	674,939	88,758	103,517	(770,222)	96,992
Total liabilities	—	1,066,580	130,825	259,060	(770,222)	686,243
Commitments and contingencies (note 12)						
Stockholders' and member's equity:						
Preferred stock, \$.01 par value; 100,000 shares authorized; none issued	—	—	—	—	—	—
Common stock, \$.01 par value; 500,000 shares authorized	306	—	—	—	—	306
Additional paid in capital	349,871	—	—	—	—	349,871
Member's equity	—	497,308	1,061,621	384,946	(1,943,875)	—
Retained earnings	147,131	—	—	—	—	147,131
Accumulated other comprehensive income (loss)	—	(3,761)	(61,729)	(73,078)	—	(138,568)
Kraton stockholders' and member's equity	497,308	493,547	999,892	311,868	(1,943,875)	358,740
Noncontrolling interest	—	—	—	34,252	—	34,252
Total stockholders' and member's equity	497,308	493,547	999,892	346,120	(1,943,875)	392,992
Total liabilities and stockholders' and member's equity	\$ 497,308	\$ 1,560,127	\$ 1,130,717	\$ 605,180	\$ (2,714,097)	\$ 1,079,235

KRATON CORPORATION
CONSOLIDATING STATEMENT OF OPERATIONS
Year Ended December 31, 2016
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenue	\$ —	\$ —	\$ 867,741	\$1,031,894	\$ (155,531)	\$ 1,744,104
Cost of goods sold	—	6,256	582,763	831,591	(155,531)	1,265,079
Gross profit (loss)	—	(6,256)	284,978	200,303	—	479,025
Operating expenses						
Research and development	—	14,415	10,187	14,889	—	39,491
Selling, general, and administrative	—	95,518	35,146	46,961	—	177,625
Depreciation and amortization	—	22,426	75,859	27,373	—	125,658
Intercompany other income and expense	—	(150,818)	160,470	(9,652)	—	—
Operating income	—	12,203	3,316	120,732	—	136,251
Disposition and exit of business activities	—	—	25,236	3,180	—	28,416
Loss on extinguishment of debt	—	(13,423)	—	—	—	(13,423)
Earnings in consolidated subsidiaries	104,640	135,838	—	—	(240,478)	—
Earnings of unconsolidated joint venture	—	—	—	394	—	394
Interest income (expense), net	—	(139,089)	(938)	1,075	—	(138,952)
Income (loss) before income taxes	104,640	(4,471)	27,614	125,381	(240,478)	12,686
Income tax benefit (expense)	—	109,110	(18,793)	1,637	—	91,954
Consolidated net income (loss)	104,640	104,639	8,821	127,018	(240,478)	104,640
Net loss attributable to noncontrolling interest	—	—	—	2,668	—	2,668
Net income attributable to Kraton	\$ 104,640	\$ 104,639	\$ 8,821	\$ 129,686	\$ (240,478)	\$ 107,308

KRATON CORPORATION
CONSOLIDATING STATEMENT OF OPERATIONS
Year Ended December 31, 2015
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenue	\$ —	\$ —	\$ 547,884	\$ 650,239	\$ (163,497)	\$ 1,034,626
Cost of goods sold	—	14,574	453,922	500,971	(163,497)	805,970
Gross profit (loss)	—	(14,574)	93,962	149,268	—	228,656
Operating expenses						
Research and development	—	16,572	4,210	10,242	—	31,024
Selling, general, and administrative	—	87,796	1,738	27,774	—	117,308
Depreciation and amortization	—	22,593	28,685	10,815	—	62,093
Intercompany other income and expense	—	(87,600)	28,645	58,955	—	—
Operating income (loss)	—	(53,935)	30,684	41,482	—	18,231
Earnings (loss) in consolidated subsidiaries	(12,529)	61,990	—	—	(49,461)	—
Earnings of unconsolidated joint venture	—	—	—	406	—	406
Interest income (expense), net	—	(24,708)	115	370	—	(24,223)
Income (loss) before income taxes	(12,529)	(16,653)	30,799	42,258	(49,461)	(5,586)
Income tax benefit (expense)	—	4,124	527	(11,594)	—	(6,943)
Consolidated net income (loss)	(12,529)	(12,529)	31,326	30,664	(49,461)	(12,529)
Net loss attributable to noncontrolling interest	—	—	—	1,994	—	1,994
Net income (loss) attributable to Kraton	\$ (12,529)	\$ (12,529)	\$ 31,326	\$ 32,658	\$ (49,461)	\$ (10,535)

KRATON CORPORATION
CONSOLIDATING STATEMENT OF OPERATIONS
Year Ended December 31, 2014
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenue	\$ —	\$ —	\$ 626,791	\$ 773,091	\$ (169,449)	\$ 1,230,433
Cost of goods sold	—	11,146	506,932	644,737	(169,449)	993,366
Gross profit (loss)	—	(11,146)	119,859	128,354	—	237,067
Operating expenses						
Research and development	—	15,575	2,666	13,129	—	31,370
Selling, general, and administrative	—	73,050	400	30,759	—	104,209
Depreciation and amortization	—	22,515	29,728	13,999	—	66,242
Impairment of long-lived assets	—	1,407	3,324	—	—	4,731
Intercompany other income and expense	—	(66,639)	—	66,639	—	—
Operating income (loss)	—	(57,054)	83,741	3,828	—	30,515
Earnings in consolidated subsidiaries	1,210	81,126	—	—	(82,336)	—
Earnings of unconsolidated joint venture	—	—	—	407	—	407
Interest income (expense), net	—	(24,864)	179	91	—	(24,594)
Income (loss) before income taxes	1,210	(792)	83,920	4,326	(82,336)	6,328
Income tax benefit (expense)	—	2,002	(550)	(6,570)	—	(5,118)
Consolidated net income (loss)	1,210	1,210	83,370	(2,244)	(82,336)	1,210
Net loss attributable to noncontrolling interest	—	—	—	1,209	—	1,209
Net income (loss) attributable to Kraton	<u>\$ 1,210</u>	<u>\$ 1,210</u>	<u>\$ 83,370</u>	<u>\$ (1,035)</u>	<u>\$ (82,336)</u>	<u>\$ 2,419</u>

KRATON CORPORATION
CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)
Year Ended December 31, 2016
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income attributable to Kraton	\$ 104,640	\$ 104,639	\$ 8,821	\$ 129,686	\$ (240,478)	\$ 107,308
Other comprehensive income (loss):						
Foreign currency translation adjustments, net of tax	—	—	—	(6,736)	—	(6,736)
Unrealized gain (loss) on cash flow hedges, net of tax	—	521	—	(6)	—	515
Decrease (increase) in benefit plans liability, net of tax	—	1,872	(5,011)	(10,602)	—	(13,741)
Other comprehensive income (loss), net of tax	—	2,393	(5,011)	(17,344)	—	(19,962)
Comprehensive income attributable to Kraton	104,640	107,032	3,810	112,342	(240,478)	87,346
Comprehensive loss attributable to noncontrolling interest	—	—	—	(1,916)	—	(1,916)
Consolidated comprehensive income	<u>\$ 104,640</u>	<u>\$ 107,032</u>	<u>\$ 3,810</u>	<u>\$ 110,426</u>	<u>\$ (240,478)</u>	<u>\$ 85,430</u>

KRATON CORPORATION
CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)
Year Ended December 31, 2015
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss) attributable to Kraton	\$ (12,529)	\$ (12,529)	\$ 31,326	\$ 32,658	\$ (49,461)	\$ (10,535)
Other comprehensive income (loss):						
Foreign currency translation adjustments, net of tax	—	32	—	(44,157)	—	(44,125)
Decrease (increase) in benefit plans liability, net of tax	—	(2,683)	7,478	(20)	—	4,775
Other comprehensive income (loss), net of tax	—	(2,651)	7,478	(44,177)	—	(39,350)
Comprehensive income (loss) attributable to Kraton	(12,529)	(15,180)	38,804	(11,519)	(49,461)	(49,885)
Comprehensive loss attributable to noncontrolling interest	—	—	—	(3,416)	—	(3,416)
Consolidated comprehensive income (loss)	<u>\$ (12,529)</u>	<u>\$ (15,180)</u>	<u>\$ 38,804</u>	<u>\$ (14,935)</u>	<u>\$ (49,461)</u>	<u>\$ (53,301)</u>

KRATON CORPOATION
CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)
Year Ended December 31, 2014
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss) attributable to Kraton	\$ 1,210	\$ 1,210	\$ 83,370	\$ (1,035)	\$ (82,336)	\$ 2,419
Other comprehensive loss:						
Foreign currency translation adjustments, net of tax	—	(575)	—	(44,053)	—	(44,628)
Increase in benefit plans liability, net of tax	—	—	(33,232)	(106)	—	(33,338)
Other comprehensive loss, net of tax	—	(575)	(33,232)	(44,159)	—	(77,966)
Comprehensive income (loss) attributable to Kraton	1,210	635	50,138	(45,194)	(82,336)	(75,547)
Comprehensive loss attributable to noncontrolling interest	—	—	—	(3,240)	—	(3,240)
Consolidated comprehensive income (loss)	<u>\$ 1,210</u>	<u>\$ 635</u>	<u>\$ 50,138</u>	<u>\$ (48,434)</u>	<u>\$ (82,336)</u>	<u>\$ (78,787)</u>

KRATON CORPORATION
CONSOLIDATING STATEMENT OF CASH FLOWS
Year Ended December 31, 2016
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows provided by (used in) operating activities	\$ —	\$ (117,179)	\$ 215,595	\$ 40,052	\$ —	\$ 138,468
Cash flows provided by (used in) investing activities:						
Proceeds from intercompany loans	—	232,198	—	—	(232,198)	—
Kraton purchase of property, plant, and equipment	—	(3,010)	(62,240)	(33,955)	—	(99,205)
KFPC purchase of property, plant, and equipment	—	—	—	(20,386)	—	(20,386)
Purchase of software and other intangibles	—	(4,347)	(1,515)	—	—	(5,862)
Acquisition, net of cash acquired	—	(1,367,088)	11,590	43,393	—	(1,312,105)
Sale of assets	—	—	72,803	—	—	72,803
Net cash provided by (used in) investing activities	—	(1,142,247)	20,638	(10,948)	(232,198)	(1,364,755)
Cash flows provided by (used in) financing activities:						
Proceeds from debt	—	1,732,890	55,075	—	—	1,787,965
Repayments of debt	—	(430,058)	(55,075)	—	—	(485,133)
KFPC proceeds from debt	—	—	—	36,896	—	36,896
Capital lease payments	—	—	(272)	—	—	(272)
Purchase of treasury stock	(975)	—	—	—	—	(975)
Cash contribution from member	—	(975)	—	—	975	—
Cash distribution to member	(3,481)	4,456	—	—	(975)	—
Proceeds from the exercise of stock options	4,456	—	—	—	—	4,456
Settlement of interest rate swap	—	—	(5,155)	—	—	(5,155)
Debt issuance costs	—	(53,929)	(3,717)	—	—	(57,646)
Payments on intercompany loans	—	—	(232,404)	206	232,198	—
Net cash provided by (used in) financing activities	—	1,252,384	(241,548)	37,102	232,198	1,280,136
Effect of exchange rate differences on cash	—	—	—	(2,149)	—	(2,149)
Net increase (decrease) in cash and cash equivalents	—	(7,042)	(5,315)	64,057	—	51,700
Cash and cash equivalents, beginning of period	—	7,256	11,595	51,198	—	70,049
Cash and cash equivalents, end of period	\$ —	\$ 214	\$ 6,280	\$ 115,255	\$ —	\$ 121,749

KRATON CORPORTION
CONSOLIDATING STATEMENT OF CASH FLOWS
Year Ended December 31, 2015
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows provided by (used in) operating activities	\$ —	\$ (12,130)	\$ 100,146	\$ 15,831	\$ —	\$ 103,847
Cash flows provided by (used in) investing activities:						
Proceeds from intercompany loans	—	55,590	—	—	(55,590)	—
Kraton purchase of property, plant, and equipment	—	(1,723)	(38,434)	(16,908)	—	(57,065)
KFPC purchase of property, plant, and equipment	—	—	—	(69,105)	—	(69,105)
Purchase of software and other intangibles	—	(2,297)	(275)	—	—	(2,572)
Net cash provided by (used in) investing activities	—	51,570	(38,709)	(86,013)	(55,590)	(128,742)
Cash flows provided by (used in) financing activities:						
Proceeds from debt	—	—	30,000	—	—	30,000
Repayments of debt	—	—	(30,000)	—	—	(30,000)
KFPC proceeds from debt	—	—	—	80,094	—	80,094
Capital lease payments	—	—	(133)	—	—	(133)
Purchase of treasury stock	(31,899)	—	—	—	—	(31,899)
Cash contribution from member	—	(31,899)	—	—	31,899	—
Cash distribution to member	30,873	1,026	—	—	(31,899)	—
Proceeds from the exercise of stock options	1,026	—	—	—	—	1,026
Debt issuance costs	—	(1,957)	—	—	—	(1,957)
Payments on intercompany loans	—	—	(55,590)	—	55,590	—
Net cash provided by (used in) financing activities	—	(32,830)	(55,723)	80,094	55,590	47,131
Effect of exchange rate differences on cash	—	—	—	(6,005)	—	(6,005)
Net increase in cash and cash equivalents	—	6,610	5,714	3,907	—	16,231
Cash and cash equivalents, beginning of period	—	646	5,881	47,291	—	53,818
Cash and cash equivalents, end of period	\$ —	\$ 7,256	\$ 11,595	\$ 51,198	\$ —	\$ 70,049

KRATON CORPORATION
CONSOLIDATING STATEMENT OF CASH FLOWS
Year Ended December 31, 2014
(In thousands)

	Kraton Corporation	Kraton Polymers LLC	Guarantor Subsidiaries	Non- Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows provided by (used in) operating activities	\$ —	\$ (8,744)	\$ 81,969	\$ (43,367)	\$ —	\$ 29,858
Cash flows provided by (used in) investing activities:						
Proceeds from intercompany loans	—	31,959	—	—	(31,959)	—
Kraton purchase of property, plant, and equipment	—	(1,628)	(49,210)	(15,560)	—	(66,398)
KFPC purchase of property, plant, and equipment	—	—	—	(44,277)	—	(44,277)
Purchase of software and other intangibles	—	(3,710)	—	—	—	(3,710)
Net cash provided by (used) in investing activities	—	26,621	(49,210)	(59,837)	(31,959)	(114,385)
Cash flows provided by (used in) financing activities:						
Proceeds from debt	—	—	39,000	—	—	39,000
Repayments of debt	—	—	(39,000)	—	—	(39,000)
Capital lease payments	—	—	(6,007)	—	—	(6,007)
Purchase of treasury stock	(19,383)	—	—	—	—	(19,383)
Cash contribution from member	—	(18,679)	(704)	—	19,383	—
Cash distribution to member	17,935	1,448	—	—	(19,383)	—
Proceeds from the exercise of stock options	1,448	—	—	—	—	1,448
Debt issuance costs	—	—	—	(485)	—	(485)
Payments on intercompany loans	—	—	(31,959)	—	31,959	—
Net cash provided by (used in) financing activities	—	(17,231)	(38,670)	(485)	31,959	(24,427)
Effect of exchange rate differences on cash	—	—	—	(13,100)	—	(13,100)
Net increase (decrease) in cash and cash equivalents	—	646	(5,911)	(116,789)	—	(122,054)
Cash and cash equivalents, beginning of period	—	—	11,792	164,080	—	175,872
Cash and cash equivalents, end of period	\$ —	\$ 646	\$ 5,881	\$ 47,291	\$ —	\$ 53,818

18. Selected Quarterly Financial Data (Unaudited)

The following table sets forth a summary of our quarterly financial information for each of the four quarters ended December 31, 2016 and December 31, 2015:

	First Quarter ⁽¹⁾	Second Quarter ⁽²⁾	Third Quarter ⁽³⁾	Fourth Quarter ⁽⁴⁾	Total
(In thousands, except per share data)					
2016					
Revenue	\$ 419,923	\$ 454,649	\$ 454,143	\$ 415,389	\$ 1,744,104
Gross profit	\$ 93,818	\$ 131,897	\$ 135,256	\$ 118,054	\$ 479,025
Operating income	\$ 3,226	\$ 46,787	\$ 50,817	\$ 35,421	\$ 136,251
Net income (loss) attributable to Kraton	\$ 88,087	\$ 7,401	\$ 15,560	\$ (3,740)	\$ 107,308
Earnings (loss) per common share					
Basic	\$ 2.87	\$ 0.24	\$ 0.50	\$ (0.12)	\$ 3.48
Diluted	\$ 2.84	\$ 0.24	\$ 0.49	\$ (0.12)	\$ 3.43
Weighted average common shares outstanding					
Basic	30,026	30,158	30,221	30,306	30,180
Diluted	30,289	30,586	30,783	30,306	30,621
2015					
Revenue	\$ 261,429	\$ 255,908	\$ 269,012	\$ 248,277	\$ 1,034,626
Gross profit	\$ 46,561	\$ 47,436	\$ 67,810	\$ 66,849	\$ 228,656
Operating income (loss)	\$ (3,631)	\$ 602	\$ 17,151	\$ 4,109	\$ 18,231
Net income (loss) attributable to Kraton	\$ (9,456)	\$ (5,564)	\$ 8,446	\$ (3,961)	\$ (10,535)
Earnings (loss) per common share					
Basic	\$ (0.30)	\$ (0.18)	\$ 0.27	\$ (0.13)	\$ (0.34)
Diluted	\$ (0.30)	\$ (0.18)	\$ 0.27	\$ (0.13)	\$ (0.34)
Weighted average common shares outstanding					
Basic	31,067	30,772	30,503	29,969	30,574
Diluted	31,067	30,772	30,849	29,969	30,574

- (1) The first quarter of 2016 was positively impacted by a \$45.3 million gain on sale of assets, partially offset by a \$24.7 million of higher costs of goods sold for our Chemical segment related to the fair value adjustment in purchase accounting for their inventory, \$13.4 million loss on extinguishment of debt and \$11.7 million of acquisition related transactions, severance expenses, and other restructuring related charges.
- (2) The second quarter of 2016 was negatively impacted by \$5.3 million of disposition and exit of business activities and \$7.6 million of acquisition related transactions, severance expenses, and other restructuring related charges. Results for the second quarter of 2015 were negatively impacted by approximately \$13.2 million of unplanned production issues and higher turnaround costs.
- (3) The third quarter of 2016 was negatively impacted by \$7.7 million of acquisition related transactions, severance expenses, and other restructuring related charges. The third quarter of 2015 included \$5.0 million of transaction related costs, primarily associated with the Arizona Chemical Acquisition.
- (4) The fourth quarter 2016 was negatively impacted by \$11.6 million of disposition and exit of business activities and \$6.5 million of acquisition related transactions, severance expenses, and other restructuring related charges. The fourth quarter of 2015 included \$15.0 million of transaction related costs, primarily associated with the Arizona Chemical Acquisition.

Basic and diluted earnings per share are computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted earnings per share information may not equal annual basic and diluted earnings per share.

19. Subsequent Events

Repricing of Credit and Guarantee Agreement. On January 9, 2017, Kraton Corporation (the "Parent") entered into a Second Amendment to Credit and Guarantee Agreement (the "Amendment"), amending the Credit and Guarantee Agreement, dated as of January 6, 2016, among Kraton Polymers LLC (the "Borrower"), the Parent, certain subsidiaries of the Borrower, as Guarantors, and Credit Suisse AG, Cayman Islands Branch, as Administrative Agent and Collateral Agent (as amended, the "Term Loan Facility"). Pursuant to the Amendment, Deutsche Bank served as the Replacement Term Lender as such term is defined in the Amendment. The Amendment decreased the interest rate on approximately \$1.278 billion of existing term loans under the Term Loan Facility to LIBOR plus 4.0% and reset the period during which a prepayment premium may be required for a "Repricing Event" (as defined in the Credit and Guarantee Agreement) until six months after the effective date of the Amendment.

Evaluation of Other Subsequent Events. We have evaluated significant events and transactions that occurred after the balance sheet date and determined that there were no other events or transactions that would require recognition or disclosure in our consolidated financial statements for the period ended December 31, 2016.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Kraton Corporation:

Under date of February 28, 2017, we reported on the consolidated balance sheets of Kraton Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016, which are included in Kraton Corporation's annual report on Form 10-K. In connection with our audits of the aforementioned consolidated financial statements, we also audited the related consolidated financial statement Schedule II—Valuation and Qualifying Accounts and Reserves (financial statement schedule) in Kraton Corporation's annual report on Form 10-K. This financial statement schedule is the responsibility of Kraton Corporation's management. Our responsibility is to express an opinion on this financial statement schedule based on our audits.

In our opinion, the financial statement schedule, when considered in relation to the consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

Our audit report dated February 28, 2017 on internal control over financial reporting as of December 31, 2016, contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2016, Arizona Chemical's internal control over financial reporting associated with total assets of \$1,779.4 million and total revenue of \$719.4 million included in the consolidated financial statements of Kraton Corporation and subsidiaries as of and for the year ended December 31, 2016. Our audit of internal control over financial reporting of Kraton Corporation also excluded an evaluation of the internal control over financial reporting of Arizona Chemical.

(signed) KPMG LLP

Houston, Texas
February 28, 2017

KRATON CORPORATION
SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
For the Years Ended December 31, 2016, 2015, and 2014
(In thousands)

	Balance at Beginning of Period	Net Expenses	Write-offs	Balance at End of Period
Allowance for doubtful accounts:				
Year Ended December 31, 2016	\$ 244	\$ 590	\$ (20)	\$ 814
Year Ended December 31, 2015	\$ 245	\$ 31	\$ (32)	\$ 244
Year Ended December 31, 2014	\$ 315	\$ 13	\$ (83)	\$ 245

	Balance at Beginning of Period	Net Expenses	Foreign Currency	Balance at End of Period
Inventory reserves:				
Year Ended December 31, 2016	\$ 11,228	\$ 2,569	\$ (217)	\$ 13,580
Year Ended December 31, 2015	\$ 11,028	\$ 171	\$ 29	\$ 11,228
Year Ended December 31, 2014	\$ 10,476	\$ 339	\$ 213	\$ 11,028

EXHIBIT INDEX

Item 15. Exhibits

The following is a list of all exhibits filed as a part of this annual report on Form 10-K, including those incorporated by reference.

Exhibit No	Description of Exhibits
2.1	Combination Agreement by and among Kraton Corporation, KPP Shelfco Limited, NY Mergerco, LLC, LCY Chemical Corp. and LCY Synthetic Rubber Corp., dated as of January 28, 2014 (incorporated by reference to Exhibit 2.1 to Kraton Corporation's** Current Report on Form 8-K filed with the SEC on January 28, 2014)
2.2	Stock Purchase Agreement, dated as of September 27, 2015, by and among AZC Holding Company LLC, Arizona Chemical Holdings Corporation and Kraton Polymers LLC (incorporated by reference to Exhibit 2.1 to Kraton Corporation's current report on Form 8-K filed with the SEC on September 30, 2015)
3.1	Certificate of Incorporation of Kraton Performance Polymers, Inc. (incorporated by reference to Exhibit 3.1 to Kraton Corporation's Form S-3 filed with the SEC on August 25, 2015)
3.2	Certificate of Amendment to the Certificate of Incorporation of Kraton Performance Polymers, Inc. (incorporated by reference to Exhibit 3.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on September 14, 2016)
3.3	First Amended and Restated Bylaws of Kraton Corporation (incorporated by reference to Exhibit 3.2 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on September 14, 2016)
4.1	Specimen Stock Certificate of Kraton Corporation's Common Stock, par value \$0.01 per share (incorporated by reference to Exhibit 4.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on September 14, 2016)
4.2	Indenture, dated as of January 6, 2016, among Kraton Polymers LLC, Kraton Polymers Capital Corporation, the Guarantors named therein and Wells Fargo Bank, National Association, as trustee, relating to the 10.5% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 7, 2016)
4.3	Supplemental Indenture No. 1, dated as of March 14, 2016, among AZ Chem Partners I LLC and AZ Chem Partners II LLC, as guaranteeing subsidiaries, and Wells Fargo Bank National Association, as trustee, relating to the 10.5% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on March 16, 2016)
10.1	Guarantee Agreement by and between Kraton Polymers LLC and Taiwan Cooperative Bank, Ltd., dated as of July 17, 2014 (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on July 31, 2014)
10.2	Credit and Guarantee Agreement, dated as of January 6, 2016, among Kraton Polymers LLC, as the Borrower, Kraton Performance Polymers, Inc., as Parent, certain subsidiaries of Parent, as guarantors, the Lenders party thereto from time to time, Credit Suisse AG, Cayman Islands Branch, as Administrative Agent and as Collateral Agent and Nomura Securities International, Inc. and Deutsche Bank Securities Inc., as Syndication Agents (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 7, 2016)
10.3*	First Amendment to Credit and Guarantee Agreement, dated as of July 6, 2016, among Kraton Polymers LLC, as Borrower, and Credit Suisse AG, Cayman Islands Branch, as Administrative Agent.
10.4	Second Amendment to Credit and Guarantee Agreement, dated as of January 9, 2017, relating to the Credit and Guarantee Agreement dated as of January 6, 2016, among Kraton Polymers LLC, as the Borrower, Kraton Performance Polymers, Inc., as Parent, certain subsidiaries of Parent, as guarantors, the Lenders party thereto from time to time, Credit Suisse AG, Cayman Islands Branch, as Administrative Agent and as Collateral Agent and Nomura Securities International, Inc. and Deutsche Bank Securities Inc., as Syndication Agents (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 10, 2017)
10.5	Pledge and Security Agreement, dated as of January 6, 2016, among Kraton Polymers LLC, Kraton Performance Polymers, Inc., Kraton Polymers U.S. LLC, Elastomers Holdings LLC, Kraton Polymers Capital Corporation, Arizona Chemical Holdings Corporation, AZ Chem Intermediate Inc., AZ Chem US Holdings Inc., AZ Chem US Inc. and Arizona Chemical Company, LLC, as Grantors, and Credit Suisse AG, Cayman Islands Branch, as Collateral Agent (incorporated by reference to Exhibit 10.2 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 7, 2016)

Exhibit No	Description of Exhibits
10.6	Amended and Restated Loan, Security and Guarantee Agreement, dated as of January 6, 2016, among Kraton Polymers U.S. LLC and Arizona Chemical Company, LLC, as Borrowers and Guarantors, Kraton Performance Polymers, Inc., as Parent, Kraton Polymers LLC, Elastomers Holdings LLC, Kraton Polymers Capital Corporation, Arizona Chemical Holdings Corporation, AZ Chem Intermediate Inc., AZ Chem US Holdings Inc., and AZ Chem US Inc., as Guarantors, Kraton Polymers Nederland B.V., as Dutch Borrower, the Foreign Guarantors party thereto, and Bank of America, N.A., as Administrative Agent and Collateral Agent (incorporated by reference to Exhibit 10.3 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 7, 2016)
10.7	Purchase Agreement, dated as of January 5, 2016, by and among Kraton Polymers LLC and Kraton Polymers Capital Corporation, as Issuers, Credit Suisse Securities (USA) LLC, Nomura Securities International, Inc. and Deutsche Bank Securities Inc., as representatives of the several initial purchasers named therein, and the Guarantors named therein (incorporated by reference to Exhibit 10.4 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on January 7, 2016)
10.8	Shareholder Agreement of Kraton Formosa Polymers Corporation, dated as of February 27, 2013, by and between KP Investment BV and Formosa Petrochemical Corporation (incorporated by reference to Exhibit 10.3 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on May 2, 2013)
10.9	Ground Lease, dated as of February 27, 2013, by and between Formosa Petrochemical Corporation and Kraton Formosa Polymers Corporation (Mailiao) (incorporated by reference to Exhibit 10.4 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on May 2, 2013)
10.10	Contribution Agreement, dated as of February 28, 2001, between Shell Oil Company and Shell Elastomers (portions of this exhibit have been omitted pursuant to a request for confidential treatment) (incorporated by reference to Exhibit 10.44 to Amendment No. 1 to Kraton Corporation's Annual Report on Form 10-K/A filed with the SEC on October 28, 2011)
10.11	Contribution Agreement, dated as of February 28, 2001, between Shell Internationale Research Maatschappij B.V. and Kraton Polymers Research B.V. (portions of this exhibit have been omitted pursuant to a request for confidential treatment) (incorporated by reference to Exhibit 10.45 to Amendment No. 3 to Kraton Corporation's Annual Report on Form 10-K/A filed with the SEC on March 8, 2012)
10.12	Amended and Restated Belpre Facility Sharing and Operating Agreement, dated as of July 1, 1999, among Infineum USA LP, Shell Oil Kraton and Shell Elastomers LLC (portions of this exhibit have been omitted pursuant to a request for confidential treatment) (incorporated by reference to Exhibit 10.31 to Amendment No. 1 to Kraton Corporation's Annual Report on Form 10-K/A filed with the SEC on October 28, 2011)
10.13	Amendment No. 1 to Amended and Restated Belpre Facility Sharing and Operating Agreement, dated as of January 23, 2007 (incorporated by reference to Exhibit 10.69 to the Kraton Corporation's Form S-1 filed with the SEC on November 20, 2009)
10.14	Amendment No. 2 to Amended and Restated Belpre Facility Sharing and Operating Agreement, dated as of January 1, 2009 (incorporated by reference to Exhibit 10.70 to the Kraton Corporation's Form S-1 filed with the SEC on November 20, 2009)
10.15	Manufacturing Facility Lease, dated as of August 24, 2000, between Shell Chimie and Kravis (Berre-Kraton D) (incorporated by reference to Exhibit 10.47 to Kraton Polymers LLC's Registration Statement on Form S-4 filed with the SEC on April 1, 2005)
10.16	Manufacturing Facility Lease, dated as of August 24, 2000, between Shell Chimie and Kraton Polymers France SAS (Berre-Kraton G) (incorporated by reference to Exhibit 10.48 to Kraton Polymers LLC's Registration Statement on Form S-4 filed with the SEC on April 1, 2005)
10.17	Business Lease, dated as of March 31, 2000, between Elenac GmbH and Kraton Polymers GmbH (Wesseling) (portions of this exhibit have been omitted pursuant to a request for confidential treatment) (incorporated by reference to Exhibit 10.49 to Kraton Polymers LLC's Registration Statement on Form S-4 filed with the SEC on April 1, 2005)
10.18	Amendment to the Business Lease dated March 31, 2000 between Bassell Polyolefine GmbH (previously Elenac GmbH) and Kraton Polymers GmbH (Wesseling) (incorporated by reference to Exhibit 10.49(a) to Kraton Polymers LLC's Registration Statement on Form S-4 filed with the SEC on April 1, 2005)
10.19	Lease Agreement dated as of February 28, 2007 between International Paper Company and Arizona Chemical Company (Savannah) (incorporated by reference to Exhibit 10.17 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.20	Oulu Land Lease Agreement dated effective as of 30 August 1996 between Enso Oy and Forchem Oy (Oulu) (incorporated by reference to Exhibit 10.18 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)

Exhibit No	Description of Exhibits
10.21	Amendment for Land Lease Contract dated 15 February 2013 between Stora Enso Oyj and Arizona Chemical Oy (Oulu) (incorporated by reference to Exhibit 10.19 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.22+	Kraton Polymers U.S. LLC Benefits Restoration Plan, as amended and restated effective as of January 1, 2013 (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on November 1, 2012)
10.23+	Form of Letter to Participants in the Benefits Restoration Plan with respect to Death Benefit (incorporated by reference to Exhibit 10.21 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 28, 2013)
10.24+	Kraton Polymers U.S. LLC Pension Benefit Restoration Plan as amended and restated December 10, 2013 (incorporated by reference to Exhibit 10.24 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 27, 2014)
10.25+	Polymer Holdings LLC Executive Deferred Compensation Plan dated November 30, 2009 (incorporated by reference to Exhibit 10.52 to the Kraton Corporation's Form S-1/A filed with the SEC on December 2, 2009)
10.26+	TJ Chemical Holdings LLC 2004 Option Plan (as amended and restated November 30, 2009) (incorporated by reference to Exhibit 10.53 to the Kraton Corporation's Form S-1/A filed with the SEC on December 2, 2009)
10.27+	Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan (as amended and restated February 16, 2012) (incorporated by reference to Exhibit 10.24 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 29, 2012)
10.28+	Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on May 23, 2016)
10.29+	Form of Kraton Corporation Restricted Stock Award Agreement under the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 4.3 to Kraton Corporation's Registration Statement on Form S-8 filed with the SEC on February 24, 2017)
10.30+	Form of Kraton Corporation Restricted Stock Unit Award Agreement under the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 4.4 to Kraton Corporation's Registration Statement on Form S-8 filed with the SEC on February 24, 2017)
10.31+	Form of Kraton Corporation Restricted Stock Performance Unit Award Agreement under the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 4.5 to Kraton Corporation's Registration Statement on Form S-8 filed with the SEC on February 24, 2017)
10.32+	Form of Kraton Corporation Nonqualified Option Award Agreement under the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 4.6 to Kraton Corporation's Registration Statement on Form S-8 filed with the SEC on February 24, 2017)
10.33+	Form of Kraton Corporation Cash Settled Restricted Stock Unit Award Agreement under the Kraton Performance Polymers, Inc. 2016 Equity and Cash Incentive Plan (incorporated by reference to Exhibit 4.7 to Kraton Corporation's Registration Statement on Form S-8 filed with the SEC on February 24, 2017)
10.34+	Form of Kraton Performance Polymers, Inc. Restricted Stock Award Agreement under the Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.26 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.35+	Form of Kraton Performance Polymers, Inc. Restricted Stock Unit Award Agreement under the Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.27 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.36+	Form of Kraton Performance Polymers, Inc. Restricted Stock Performance Unit Award Agreement under the Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.28 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.37+	Form of Kraton Performance Polymers, Inc. Nonqualified Stock Option Award Agreement under the Kraton Performance Polymers, Inc. 2009 Equity Incentive Plan (incorporated by reference to Exhibit 10.29 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 24, 2016)
10.38+	Kraton Performance Polymers, Inc. 2013 Cash Incentive Plan (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on August 1, 2012)

Exhibit No	Description of Exhibits
10.39+	First Amendment to Kraton Performance Polymers, Inc. 2013 Cash Incentive Plan (incorporated by reference to Exhibit 10.2 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on September 16, 2013)
10.40+	Summary of Terms of Kraton Performance Polymers, Inc. Cash Incentive Plan for 2016 (incorporated by reference to Kraton Corporation's Current Reports on Form 8-K filed with the SEC on February 17, 2016 and March 16, 2016)
10.41+	Kraton Corporation Executive Severance Program effective as of November 1, 2011, as amended and restated June 3, 2015 (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Quarterly Report on Form 10-Q filed with the SEC on July 28, 2016)
10.42+	Form of Employee Confidentiality and Non-Competition Agreement entered into by executives participating in the Executive Severance Program (incorporated by reference to Exhibit 10.31 to Kraton Corporation's Annual Report on Form 10-K filed with the SEC on February 29, 2012)
10.43+	Amendment to Outstanding Option Grant Agreements (incorporated by reference to Exhibit 10.92 to the Kraton Corporation's Form S-1 filed with the SEC on December 2, 2009)
10.44+	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on December 16, 2011)
10.45+	Executive Compensation Recoupment Policy (adopted September 11, 2013) (incorporated by reference to Exhibit 10.1 to Kraton Corporation's Current Report on Form 8-K filed with the SEC on September 16, 2013)
12.1*	Statement of Computation of Ratio of Earnings to Fixed Charges
21.1*	List of Significant Subsidiaries
23.1*	Consent of Independent Registered Public Accounting Firm
24.1*	Powers of Attorney
31.1*	Certification by CEO pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification by CFO pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification by CEO and CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101*	The following materials from Kraton Corporation's Annual Report on Form 10-K for the year ended December 31, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2016 and December 31, 2015, (ii) Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014, (iii) Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2016, 2015, and 2015 (iv) Consolidated Statements of Changes in Equity for the years ended December 31, 2016, 2015 and 2014, (v) Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014, and (vi) Notes to Consolidated Financial Statements.

+ Denotes management contract or compensatory plan or arrangement.

* Filed herewith.

** On September 14, 2016, Kraton Performance Polymers, Inc. changed its corporate name to Kraton Corporation. Accordingly, filings made prior to such date were made under the name Kraton Performance Polymers, Inc.

**FIRST AMENDMENT TO CREDIT AND GUARANTEE
AGREEMENT**

FIRST AMENDMENT TO CREDIT AND GUARANTEE AGREEMENT (this “Agreement”), dated as of July 6, 2016 among KRATON POLYMERS LLC, a Delaware limited liability company (the “Borrower”) and CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH (“Credit Suisse”), as administrative agent (in such capacity and including any permitted successors, the “Administrative Agent”).

RECITALS

A. WHEREAS, on January 6, 2016 (i) the Borrower, Kraton Performance Polymers, Inc., a Delaware corporation (“Parent”), certain subsidiaries of Parent, as Guarantors, the Lenders party thereto from time to time, Credit Suisse and the other agents referred to therein entered into to that certain Credit and Guarantee Agreement dated as of January 6, 2016 (as amended, restated or otherwise modified prior to the date hereof, the “Credit Agreement”) and (ii) the Borrower issued Senior Unsecured Notes in an aggregate amount equal to \$440,000,000. Except as otherwise provided herein, all capitalized terms used but not defined herein shall have the meanings given to them in the Credit Agreement.

B. WHEREAS, Section 10.5(a) of the Credit Agreement permits the Administrative Agent and the Borrower to amend, modify or supplement any Credit Document to cure any ambiguity, omission, defect or inconsistency (as reasonably determined by the Administrative Agent), subject to certain requirements set forth in said Section; and

C. WHEREAS, the Borrower and the Administrative Agent have jointly identified a defect in Section 6.1(a)(iii) of the Credit Agreement; and

D. WHEREAS, the Borrower and the Administrative Agent have jointly acknowledged that an amendment is required to cure such defect.

Accordingly, in consideration of the mutual agreements herein contained and other good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. Amendment to the Credit Agreement.

Section 6.1(a)(iii) of the Credit Agreement is hereby amended and restated as follows: “the Senior Unsecured Notes in an aggregate principal amount of \$440,000,000”.

SECTION 2. Conditions to Effectiveness of this Agreement. The effectiveness of this Agreement shall be subject to the following conditions precedent (the date on which such conditions have been satisfied (or waived) is referred to herein as the “Effective Date”): (a) the Administrative Agent shall have received a duly executed counterpart of this Agreement from the Borrower, which shall be original or facsimile or “.pdf” file (followed promptly by an original) unless otherwise specified and (b) five Business Days shall have elapsed since the date this Agreement was distributed to the Lenders without the Requisite Lenders having objected in writing thereto.

SECTION 3. Effect of the Amendment. On and after the Effective Date, each reference to the Credit Agreement in any Credit Document shall be deemed to be a reference to the Credit Agreement as amended by this Agreement (as so amended, the “Amended Credit Agreement”). Except as expressly

provided in this Agreement, nothing herein shall be deemed to entitle any Credit Party to a consent to, or a waiver, amendment, modification or other change of, any of the terms, conditions, obligations, covenants or agreements contained in the Credit Agreement or any other Credit Document in similar or different circumstances. On and after the Effective Date, (i) this Agreement shall constitute a “Credit Document” for all purposes of the Credit Agreement and the other Credit Documents and (ii) the terms “Agreement”, “this Agreement”, “herein”, “hereinafter”, “hereto”, “hereof”, and words of similar import, as used in the Credit Agreement, shall, unless the context otherwise requires, mean the Amended Credit Agreement.

SECTION 4. Counterparts. This Agreement may be executed in any number of counterparts each of which when so executed shall be deemed an original, but all such counterparts together shall constitute but one and the same instrument. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or in electronic format (i.e., “pdf” or “tif”) shall be effective as delivery of a manually executed counterpart hereof.

SECTION 5. Applicable Law. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAWS PRINCIPLES THEREOF.

SECTION 6. Submission to Jurisdiction. Section 10.15 of the Credit Agreement is hereby incorporated by reference.

SECTION 7. Headings. The headings of this Agreement are for purposes of reference only and shall not limit or otherwise affect the meaning hereof.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has caused this Agreement to be duly executed by its duly authorized officers, all as of the date first above written.

KRATON POLYMERS LLC

By: /s/ Stephen E. Tremblay

Name: Stephen E. Tremblay

Title: Executive Vice President & Chief Financial Officer

IN WITNESS WHEREOF, the undersigned has caused this Agreement to be duly executed by its duly authorized officers, all as of the date first above written.

CREDIT SUISSE AG, CAYMANS ISLANDS BRANCH,
as Administrative Agent

By: /s/ Vipul Dhadha
Name: Vipul Dhadha
Title: Authorized Signatory

By: /s/ Karim Rahimtoola
Name: Karim Rahimtoola
Title: Authorized Signatory

KRATON CORPORATION
Ratio of Earnings to Fixed Charges
(In thousands)

	December 31, 2016	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012
Fixed Charges:					
+ Interest expensed	\$ 136,079	\$ 26,390	\$ 25,815	\$ 27,550	\$ 24,127
+ Interest capitalized	5,825	4,185	3,198	4,180	2,648
+ Amortization of debt issuance costs	8,741	2,233	2,223	7,389	2,986
+ Amortization of debt premium	7,987	(174)	(164)	(153)	(108)
+ Estimate of interest within rental expense	2,026	1,190	1,231	3,747	4,259
Total fixed charges	160,658	33,824	32,303	42,713	33,912
Earnings:					
+ Pre-tax income (loss)	12,686	(5,586)	6,328	(4,862)	3,115
- Income from equity investees	(394)	(406)	(407)	(530)	(530)
+ Fixed charges	160,658	33,824	32,303	42,713	33,912
+ Amortization of capitalized interest	583	419	320	418	265
+ Distributed income of equity investees	409	363	487	422	400
- Interest capitalized	(5,825)	(4,185)	(3,198)	(4,180)	(2,648)
Total Earnings	168,117	24,429	35,833	33,981	34,514
Deficiency (Surplus)	\$ (7,459)	\$ 9,395	\$ (3,530)	\$ 8,732	\$ (602)
Ratio of Earnings to Fixed Charges ⁽¹⁾	1.05	—	1.11	—	1.02

(1) Our earnings were insufficient to cover our fixed charges by approximately \$9.4 million and \$8.7 million for the years ended December 31, 2015 and 2013, respectively.

KRATON CORPORATION

List of Significant Subsidiaries as of December 31, 2016⁽¹⁾

	Jurisdiction of Organization
Kraton Polymers Nederland B.V.	Netherlands
K.P. Global Holdings C.V.	Netherlands Antilles
Kraton Polymer Holdings B.V.	Netherlands
Kraton Formosa Polymers Corporation	Republic of China
Kraton Polymers LLC	Delaware
KRATON Polymers U.S. LLC	Delaware
KP International C.V.	Netherlands Antilles
Arizona Chemical Company, LLC	Delaware
AZ Chem Holdings LP	Deleware
Arizona Chemical BV	Netherlands
AZ Chem A.B.	Sweden

(1) Listing includes only doing business names and does not include trade names.

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Kraton Corporation:

We consent to the incorporation by reference in the registration statements (No. 333-163893, No. 333-211817, and No. 333-216223) on Form S-8 and in the registration statement (No. 333-206570) on Form S-3 of Kraton Corporation of our reports dated February 28, 2017, with respect to the consolidated balance sheets of Kraton Corporation and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of December 31, 2016, which reports appear in the December 31, 2016 annual report on Form 10-K of Kraton Corporation and subsidiaries.

Our audit report dated February 28, 2017 on internal control over financial reporting as of December 31, 2016, contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2016, Arizona Chemical's internal control over financial reporting associated with total assets of \$1,779.4 million and total revenue of \$719.4 million included in the consolidated financial statements of Kraton Corporation and subsidiaries as of and for the year ended December 31, 2016. Our audit of internal control over financial reporting of Kraton Corporation also excluded an evaluation of the internal control over financial reporting of Arizona Chemical.

(signed) KPMG LLP

Houston, Texas
February 28, 2017

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that such person whose signature first appears below hereby constitutes and appoints Kevin M. Fogarty and Stephen E. Tremblay, and each of them severally, as his or her true and lawful agent, with power to act separately and with full and unqualified authority to delegate any or all of the powers granted herein to any person or persons selected by said agent(s), to execute in his or her name, place, and stead in capacity as a director of Kraton Corporation, the Annual Report on Form 10-K for the fiscal year ended December 31, 2016, with all schedules and exhibits thereto, and all amendments or instruments necessary or incidental in connection therewith, and to file the same with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said agents, or any person or persons to whom said agent(s) have delegated the foregoing powers, may do and perform each and every act and thing requisite and necessary to be done in connection with the execution and filing of the referenced report, amendments or instruments.

February 16, 2017

/s/ ANNA C. CATALANO

Anna C. Catalano

POWER OF ATTORNEY

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February 16, 2017

/s/ STEVEN J. DEMETRIOU

Steven J. Demetriou

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February 16, 2017

/s/ DOMINIQUE FOURNIER

Dominique Fournier

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February 16, 2017

/s/ JOHN J. GALLAGHER, III

John J. Gallagher, III

POWER OF ATTORNEY

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February 16, 2017

/s/ BARRY J. GOLDSTEIN

Barry J. Goldstein

POWER OF ATTORNEY

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February 16, 2017

/s/ FRANCIS S. KALMAN

Francis S. Kalman

POWER OF ATTORNEY

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February 16, 2017

/s/ DAN F. SMITH

Dan F. Smith

POWER OF ATTORNEY

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February 16, 2017

/s/ KAREN A. TWITCHELL

Karen A. Twitchell

