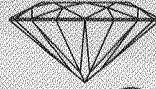


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CHARLES & COLVARD®  
2011 Annual Report



# THE CHARLES & COLVARD® FAMILY:



**CHARLES & COLVARD**  
Created MOISSANITE®

**FOREVER BRILLIANT™**  
Created by CHARLES & COLVARD

**MOISSANITE.COM**  
by CHARLES & COLVARD

*Lulu*  
**AVENUE™**

The Most Brilliant  
Jewel in the World™

CHARLES & COLVARD  
JEWELRY

CHARLES & COLVARD  
JEWELRY  
10000 Park Drive, Suite 2  
Houston, TX 77056  
www.charlesandcolvard.com

**White HOT**

Forever Brilliant™ Moissanite Jewelry is the most brilliant jewel in the world. It's the only gemstone that's harder than diamond and has 2.75 times more fire than diamond. It's the only gemstone that's colorless and has no inclusions. It's the only gemstone that's created in a lab.

**FOREVER BRILLIANT™**  
MOISSANITE JEWELRY

MOISSANITE.COM  
© 2011 CHARLES & COLVARD

**Check Us Out**  
We'll give you the most brilliant jewel in the world. It's the only gemstone that's harder than diamond and has 2.75 times more fire than diamond. It's the only gemstone that's colorless and has no inclusions. It's the only gemstone that's created in a lab.

**Why Buy From Us**  
We're a family-owned business. We have over 20 years of experience in the jewelry industry. We have a reputation for quality and customer service. We have a wide selection of Moissanite jewelry to choose from.

Charles & Colvard  
10000 Park Drive, Suite 2  
Houston, TX 77056  
www.charlesandcolvard.com

**SPRING 2012**

*Lulu*  
**AVENUE™**

# LETTER TO OUR SHAREHOLDERS

*Dear Shareholders*

Last year, I indicated that the focus of Charles & Colvard's growth strategy had shifted primarily to building consumer awareness of moissanite as a catalyst for increasing sales. I also informed you that we implemented critical tools to support new sales initiatives, improve the efficiency of production, and enhance shareholder value going forward in 2011.

To accomplish this, we centered on the Company's growth goals, which were then and continue to be:

- Grow our core wholesale loose jewel and finished jewelry businesses by continuing to seek opportunities with new and existing partners, both domestic and international
- Establish an Internet presence that functions as a key vehicle to increase consumer awareness of our moissanite gemstone and our brands, which we are achieving with the introduction of our direct-to-consumer e-commerce website, *Moissanite.com*
- Implement a direct-to-consumer home party sales model that provides the opportunity for significant future revenue growth and plays a key role in growing overall consumer awareness of moissanite, which we are achieving with the introduction of our direct-to-consumer home party brand, *Lulu Avenue™*
- Build multiple brands around the moissanite jewel and finished jewelry collections in attractive and desirable jewelry designs to increase consumer awareness of moissanite and develop brand recognition and loyalty

We made meaningful progress toward these goals in fiscal 2011, despite significant challenges. Some highlights of financial accomplishments are:

- Revenues increased 26% over the prior year, with fourth quarter revenues up 105%
- Gross profit margins exceeded 59%
- Net operating cash flows were \$3.5 million, an increase of 133% from 2010
- Net income was approximately 10% of net sales despite a 24% increase in operating expenses to support future revenue growth through *Moissanite.com* and *Lulu Avenue™*
- Earnings per share of \$0.08, consistent with prior year while investing significantly in our direct-to-consumer sales channels
- Total inventories decreased by over 6% through sell-down of existing gemstone inventory stock, while concurrently investing in new fashion and fine jewelry containing precious metals
- Accrued income taxes were reduced during the year by over 20% with no cash outlay
- Over \$1 million was invested in systems enhancements to support future growth
- A strong balance sheet and getting stronger:
  - Cash, cash equivalents and investments of \$10.5 million, a 20% increase from prior year
  - Current ratio of 10.8, indicating strong liquidity within our industry
  - No long-term debt
  - Returned value to shareholders by repurchasing over 149,000 shares during the year

This is good performance in a very competitive business and economic environment, but not yet great. I remain confident that we will continue growing our business based on our conviction to the Company's statement of purpose: "We will grow by providing consumers in all parts of the world an affordable luxury experience." Towards this end as we move forward in 2012, we are executing our growth strategy as planned, with an increasing focus on innovation; investing in process improvement and increasing productivity; continuing to strengthen our portfolio of distributors and retailers; and addressing growth challenges head-on.

We have solid, executable plans in place to maintain long-term, sustainable growth. Further, Charles & Colvard's people are motivated and are performing gallantly to grow our business and to create value for our shareholders. My objective, with this Letter, is to provide awareness of what we are focusing on to enhance our business.



As part of our statement of purpose, we endeavor to bring an affordable luxury experience to people's everyday lives. We're committed to reaching as many as possible with jewelry that makes them feel special and their daily experiences a little more fun. We know that if we do this well, we'll be rewarded with sales and profit growth, increased market awareness, a strong company reputation and, ultimately, the creation of value that allows our shareholders to prosper.

Our growth strategy for Charles & Colvard, which we established two years ago, continues to be the right course because it inspires our people and our partners, focuses us where we believe the growth opportunities are greatest, leverages our core strengths, and continues to build on a strong foundation of jewelry manufacturing expertise, brand development, market expansion competency and, most importantly, innovation.

Innovation has become a driving force for Charles & Colvard's long-term strategy. It is our strong belief that price promotions may win a quarter here and there, but continually introducing new, exciting, and innovative products wins decades. With that said, I feel our new premier brand of Charles & Colvard Created Moissanite®, *Forever Brilliant™*, a gemstone with optical properties that are remarkably whiter and brighter than ever before, opens a whole new chapter for moissanite sales. Consumers around the globe will be astonished at the transformation of our moissanite gemstone that is up to four color grades whiter. Particularly in Asia, where color has been the primary consumer objection, increasing our market share with the whiter gemstone is now a real possibility. I can't imagine a better platform for launching new jewelry brands that provide an affordable luxury experience like no other.

There are multiple process improvement efforts under way throughout the organization, but the increased use of technology is the one providing major productivity enhancements. Our intention is for Charles & Colvard to harness the power of real-time business intelligence to aid decision making. We are accelerating innovation by using technology to create visibility from jewelry creation to the store shelf, and we are standardizing our manufacturing systems to integrate data that will enable us to manage the business in real time and on a demand-driven basis. We'll be able to work together more effectively and efficiently, inside and outside the Company, and we'll be able to interact with distributors, retail partners, and consumers far more directly and frequently than we can today. Enhanced efficiency frees up resources to invest in innovation that helps drive top- and bottom-line growth.

In addition, we continue to take steps to strengthen Charles & Colvard's portfolio of businesses, which enables us to focus on our greatest growth opportunities. This is an ongoing process, and we continually evaluate the strength of our portfolio by assessing our ability to apply the Company's core capabilities of product development, brand building innovation, consumer understanding, marketing, and scale. Based on this evaluation, we believe that our current portfolio is the strongest it has been in many years and provides a highly strategic platform for sustainable growth.

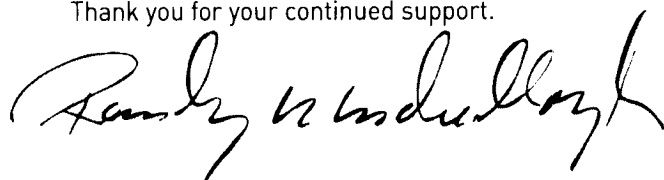
Two years ago, we entered the finished fine jewelry business despite the Company's historical lack of experience with finished jewelry and its inherent difficulties with branding. Today, jewelry manufacturing allows us to focus our efforts toward consumers, where we can more clearly apply our Company's strengths and where there are opportunities to increase sales and consumer awareness.

I want to conclude by looking forward and reaffirming my strong belief that we have the right purpose, strategy, and supporting capability to grow well into the future. The opportunities described above are a big reason why I am so confident in Charles & Colvard's growth strategy, but the most important reason of all is the most fundamental: our strategy inspires extraordinary performance by everyone called upon to help execute it.

When we commit ourselves to reaching as many as possible with jewelry that makes them feel special and their daily experiences a little more fun, we inspire higher levels of performance. A strong sense of purpose focuses us on the consumers we serve and inspires compassion for them that, in turn, leads to innovation that drives growth.

The folks here at Charles & Colvard want to be part of something positive, something bigger than themselves. They want to know they can use their time and talents to make a lasting difference in people's lives. I am confident in their ability to be innovative in creating new ways to go to markets, growing our existing markets, developing sustainable brands, and delivering the top- and bottom-line growth that you expect from Charles & Colvard and that we demand of ourselves.

Thank you for your continued support.

A handwritten signature in black ink, reading "Randy N. McCullough". The signature is fluid and cursive, with a large, sweeping initial "R".

Randy N. McCullough  
President and Chief Executive Officer



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

SEC  
Division of  
Investment  
Section

**FORM 10-K**

APR 30 2012

(Mark One)

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2011

OR

Transition report pursuant to Section 13 of 15(d) of the Securities Exchange Act of 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 000-23329

**Charles & Colvard, Ltd.**

(Exact name of registrant as specified in its charter)

**North Carolina**

(State or other jurisdiction of  
incorporation or organization)

**56-1928817**

(I.R.S. Employer  
Identification No.)

**300 Perimeter Park Drive, Suite A  
Morrisville, North Carolina**

(Address of principal executive offices)

**27560**

(Zip Code)

**(919) 468-0399**

(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
<b>Common Stock, no par value per share</b>	<b>The NASDAQ Stock Market LLC</b>

**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 Exchange 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 Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T 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 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 the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer

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

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

As of June 30, 2011, the aggregate market value of the registrant's voting and non-voting common stock held by non-affiliates of the registrant was \$48,347,355 based on the closing sales price as reported on the NASDAQ Global Select Market.

As of March 23, 2012, there were approximately 19,505,129 shares of the registrant's common stock, no par value per share, outstanding.

#### DOCUMENT INCORPORATED BY REFERENCE

Certain portions of the Proxy Statement for the registrant's 2012 Annual Meeting of Shareholders to be held on May 17, 2012 are incorporated by reference into Part III of this Annual Report on Form 10-K.

**CHARLES & COLVARD, LTD.**

**FORM 10-K**

For the Fiscal Year Ended December 31, 2011

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## FORWARD-LOOKING STATEMENTS

*This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Statements expressing expectations regarding our future and projections relating to products, sales, revenues, and earnings are typical of such statements and are made under the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements about our plans, objectives, representations, and contentions and are not historical facts and typically are identified by use of terms such as “may,” “will,” “should,” “could,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “continue,” and similar words, although some forward-looking statements are expressed differently.*

*All forward-looking statements are subject to the risks and uncertainties inherent in predicting the future. You should be aware that although the forward-looking statements included herein represent management’s current judgment and expectations, our actual results may differ materially from those projected, stated, or implied in these forward-looking statements as a result of many factors including, but not limited to, our dependence on consumer acceptance and growth of sales of our products resulting from our strategic initiatives; dependence on a limited number of customers; our current wholesale customers’ potential perception of us as a competitor in the finished jewelry business; general economic and market conditions, including the current economic environment; dependence on Cree, Inc. as the current supplier of the raw material; intense competition in the worldwide jewelry industry; the financial condition of our major customers; risks of conducting business in foreign countries; the pricing of precious metals, which is beyond our control; the potential impact of seasonality on our business; our ability to protect our intellectual property; the risk of a failure of our information technology infrastructure to protect confidential information and prevent security breaches; and possible adverse effects of governmental regulation and oversight, in addition to the other risks and uncertainties described in more detail in “Risk Factors” in Part I, Item 1A of this Annual Report on Form 10-K. Forward-looking statements speak only as of the date they are made. We undertake no obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur except as required by the federal securities laws, and you are urged to review and consider disclosures that we make in the reports that we file with the Securities and Exchange Commission, or SEC, that discuss other factors relevant to our business.*

## PART I

### Item 1. Business

#### General

Charles & Colvard, Ltd., a North Carolina corporation founded in 1995 (which may be referred to as Charles & Colvard, we, us, or our), manufactures, markets, and distributes Charles & Colvard Created Moissanite<sup>®</sup> jewels (which we refer to as moissanite or moissanite jewels) and finished jewelry featuring moissanite for sale in the worldwide jewelry market. Moissanite, also known by its chemical name of silicon carbide, or SiC, is a rare mineral first discovered in a meteor crater. Because naturally occurring SiC crystals are too small for commercial use, larger crystals must be grown in a laboratory. Leveraging our advantage of being the sole source worldwide of created moissanite jewels, our strategy is to establish Charles & Colvard with reputable, high-quality, and sophisticated brands and to position moissanite as an affordable, luxurious alternative to other gemstones, such as diamond. We believe this is possible due to moissanite’s exceptional brilliance, fire, luster, durability, and rarity like no other jewel available on the market. We sell loose moissanite jewels and finished jewelry at wholesale to distributors, manufacturers, and retailers and at retail to end consumers through our wholly owned operating subsidiaries Moissanite.com, LLC and Charles & Colvard Direct, LLC.

We manage our business primarily by our product lines, and accordingly, we determined our two operating and reporting segments to be loose jewels and finished jewelry. United States, or U.S., sales represented 67% and 66% of total net sales for the years ended December 31, 2011 and 2010, respectively. Our three largest customers during the year ended December 31, 2011 accounted for 15%, 12%, and 11%, respectively, of our total sales compared to 4%, 18% and 0%, respectively, during the year ended December 31, 2010. A fourth customer accounted for 15% of our total sales during the year ended December 31, 2010 but did not account for more than 10% of our total sales during the year ended December 31, 2011. No additional customers accounted for more than 10% of sales in 2011 or 2010.

Our future growth strategy is closely linked to our statement of purpose: “We will grow by providing consumers in all parts of the world an affordable luxury experience.” We plan to accomplish this by growing our core wholesale loose jewel and finished jewelry businesses with key distributors, jewelry manufacturers, and retailers while working to develop and expand direct-to-consumer sales channels, including our e-commerce and home-party direct selling businesses through our wholly owned subsidiaries Moissanite.com, LLC and Charles & Colvard Direct, LLC, respectively. We plan to support these initiatives by increasing consumer awareness, clearly communicating to the consumer the value proposition of our products, and developing and distributing leading global brands for our moissanite jewel and finished jewelry featuring moissanite with an unrelenting focus on design.

#### *Growing our core wholesale loose jewel and finished jewelry businesses*

We will continue to focus on our core business of manufacturing and distributing the moissanite loose jewel and finished jewelry featuring moissanite through wholesale sales channels, because this is currently the primary way we reach consumers and we believe there is substantial opportunity to capture a larger share of the jewelry market:

- According to the International Diamond Exchange, the global jewelry business is a \$145 billion market;
- According to the World Diamond Council, the U.S. jewelry business is a \$65 billion market, of which diamond jewelry comprises approximately \$36 billion; and
- Our 2011 net sales were less than 0.1% of the U.S. diamond jewelry market.

We have expanded relationships with key distributors, providing appropriate authorized distribution partners with consumer-targeted pricing, enhanced training, and improved marketing support in order to better position our loose moissanite jewel as an affordable, luxurious diamond alternative. We have also developed strategic relationships with key players in the jewelry industry, the primary objective of which is to expand market awareness of the features and competitive advantages of finished jewelry featuring moissanite.

The wholesale finished jewelry business that we launched in 2010 is currently expanding through the following channels:

- *Select retailers* - We are selling our finished jewelry directly to select retailers that do not conflict with our existing distributor and manufacturer customers for loose jewels. In some cases, these retailers were former customers of one or more of our past distributor or manufacturer customers that chose not to continue in the moissanite jewelry business. We believe there is significant opportunity to expand this sales channel as we execute our strategy to increase consumer awareness of moissanite.
- *Television shopping networks* - Beginning in late 2010, we began selling finished jewelry featuring moissanite on several television shopping networks, including ShopNBC and Jewelry Television in the U.S. and Ideal World in the United Kingdom. During 2011, our business volume with the television shopping networks increased significantly, from approximately 7% of total net sales in 2010 to approximately 20% of total net sales in 2011. This sales channel, with a viewing audience in excess of 40 million homes, helps to build consumer awareness of moissanite and sets the stage for more aggressive business expansion as our economies develop, and we expect our sales volume in this channel will continue to grow.

#### *Developing and expanding our direct-to-consumer sales channels*

In July 2011, we formed the wholly owned operating subsidiaries Moissanite.com, LLC and Charles & Colvard Direct, LLC for our direct-to-consumer e-commerce and home party businesses, respectively.

- *E-commerce* - Our new direct-to-consumer e-commerce website, www.moissanite.com, went live to the public on August 23, 2011. The site is built on the robust and scalable *Magento* e-commerce software platform, which powers websites for many of the world’s leading brands. Our focus in the latter part of 2011 was to improve site functionality by developing a more intuitive shopping experience through user interface, one-page shopping cart, single sign-on, and enhanced images; and the addition of new features to the site, such as cross-sale and up-sale functionality, social media connectivity, and the acceptance of international orders. In 2012, we are continuing to add functionality such as custom packaging, gift messages and gift wrapping, user reviews and ratings, and designer sections. We are also expanding the site’s jewelry assortment through an exclusive agreement with one of the top jewelry manufacturers in the

U.S., which will provide fulfillment of quality moissanite finished jewelry for our site only. As we improve the functionality and assortment on the site, we also plan to invest resources in marketing campaigns designed to increase traffic and sales conversion ratios. We believe our direct-to-consumer e-commerce sales channel will not only add to our top-line revenues in a significant manner, but will also play a key role in our campaign to increase overall consumer awareness of moissanite. We also envision e-commerce as a part of a broader effort to establish online connections with consumers that build our brands and our business with retail partners.

- *Home parties* - According to the Direct Selling Association, the U.S. home party business is an estimated \$8 billion market, dominated primarily by women at 82% of the nearly 16 million direct-sales representatives nationwide. Home parties are gaining in popularity as a social outlet, particularly in a society where computers and long commutes result in more social isolation than in decades past, and provide an effective medium for selling products that benefit from explanation and education. We feel that sales of moissanite are highest when the consumer is educated about its attributes and has the opportunity to see and touch it, and we believe home parties are an ideal venue for selling our product and expanding consumer awareness.

In the second quarter of 2011, we began developing a direct-to-consumer home party sales model and invested considerable time and resources in creating jewelry lines, brands, and associated collateral materials. The outcome of this effort is *Lulu Avenue*, a home party brand with over 200 quality jewelry products blending fashion and fine moissanite jewelry, a multi-page catalog, and various collateral materials that we began testing in August 2011 with home parties in six states. The sales and consumer response, including interest by party attendees in joining the business as independent sales representatives, throughout our test phase exceeded our projections and goals and, as a result, our Board of Directors approved a nationwide soft launch that occurred in January 2012. We have added key personnel to help launch *Lulu Avenue*, including a General Manager with substantial experience in the development and execution of home party businesses; a Vice President of National Sales with over 20 years in the business and a track record of success with a number of home party ventures; and a Director of Marketing whose previous experience includes several of the notable jewelry direct sales companies. In the first quarter of 2012, we are finalizing our systems, inventory, packaging, and marketing collateral and thereafter plan to increase our sales and recruitment efforts. We believe our direct-to-consumer home party sales channel will provide significant future sales growth and play a key role in our campaign to increase overall consumer awareness of moissanite.

We also continue to evaluate the feasibility of franchised stores as a new alternative sales channel for our finished jewelry business. We envision a franchised store model designed and merchandised by us to exclusively sell finished jewelry featuring moissanite in a relatively small upper-middle class shopping footprint. We believe that this intimate selling environment would afford the store owner the opportunity to educate the consumer on the attributes and value proposition of moissanite.

All of these direct-to-consumer initiatives are designed to provide more control over the end product and enhance our relationships with moissanite consumers.

#### *Increasing consumer awareness and communicating the value proposition of moissanite*

Supporting the above growth strategies is key: we must increase consumer awareness and effectively communicate to the consumer the value proposition of our products to further enhance the selling propositions.

To reach a sizeable consumer base with relatively low cost, we have made strides in developing a social media strategy to leverage such online sites as Facebook, Twitter, and YouTube as well as online blogging and discussion boards to spread the word about our products. We also are working to deliver more consistent messaging to the end consumer by developing and making available to our distributor, manufacturer, and retailer customers through our cooperative advertising program such new and updated selling tools as displays, catalogs, postcards, brochures, certification cards, warranties, backlit signage, banners, and television commercial spots, many of which can be modified to include the customer's logo and contact information.

Our opportunity to educate the consumer about the value proposition of moissanite as the best alternative to diamond has been enhanced by increases in diamond wholesale prices over the past several years. As we touch



consumers' lives by providing the affordable luxury experience of our moissanite jewel and finished jewelry featuring moissanite, we believe additional opportunities will arise to impact more consumers in a positive and motivating way.

#### *Developing and distributing leading global jewel and finished jewelry brands*

A further enhancement to our growth strategy is the development of multiple strong brands around the moissanite jewel and finished jewelry collections in attractive and desirable jewelry designs, especially those featuring larger center stones that leverage moissanite's point of differentiation. We believe branding will allow us to increase consumer awareness, which we expect to help drive sales and develop consumer brand recognition and loyalty.

In July 2011, we received a Notice of Allowance from the United States Patent and Trademark Office, or USPTO, that approved our application for the trademark "Forever Brilliant." In January 2012, we entered into an exclusive partnership with Serenity Technologies, Inc., or Serenity, one of the world's notable laboratories for gemstone enhancements, to create moissanite jewels with optical properties that are significantly whiter than our standard VG grade jewels. We are marketing these enhanced jewels under the *Forever Brilliant*<sup>TM</sup> trademark as a premier brand to differentiate from other grades of our moissanite as well as moissanite sold by potential competitors in the future. Serenity has also developed proprietary technologies for treating moissanite to produce such colors as pink, blue, and yellow, among others, around which we are exploring additional product lines and branding strategies.

In October 2011, we engaged the services of a prominent luxury jewelry brand strategy, positioning, and marketing firm to assist us with formulating a cohesive branding strategy that encompasses *Forever Brilliant*<sup>TM</sup> loose moissanite jewels, finished jewelry brands under leading designers, and our e-commerce and home party lines of business. Our initial efforts have resulted in new corporate and product logos, product packaging, and the planned introduction of branded finished jewelry designed by Judy Evans. Ms. Evans is a leading jewelry designer with over 17 design awards, including a 2011 First Place Spectrum Award for an earring design, and was named in 2011 as one of the top 10 jewelry designers in the world by United Brands. We believe our efforts to position *Forever Brilliant*<sup>TM</sup> as the whitest and brightest moissanite jewel available anywhere in the world, the engagement of a prominent brand-building firm to convey our message, and the introduction of designer finished jewelry brands will help us to build brand recognition and increase consumer awareness of our products. We also expect that this strategy of building brand recognition will help to support revenue streams as our intellectual property rights expire in the future.

#### **Moissanite**

Moissanite is a rare, naturally occurring mineral that is generally very small in size, dark green or black in color, and not a commercially viable source of gemstone material. Therefore, we expect only lab-grown SiC crystals to provide a sustainable source of moissanite for jewels.

In addition to carat size, important characteristics of a gemstone are beauty, durability, and rarity. The beauty of a gemstone is characterized by its color, brilliance, fire, and luster. The brilliance of a gemstone is measured by its refractive index, or the extent to which, when coupled with the facet design, the gemstone reflects light. The fire of a gemstone, or the breaking of light rays into spectral colors, is measured by its dispersion. Luster is the amount of light that is reflected back to the observer from the surface of a gemstone. Durability is determined by a gemstone's hardness, or resistance to scratching; and toughness, or resistance to chipping or cleaving. Rarity is the availability or perceived availability of a gemstone.

Moissanite jewels have a unique combination of brilliance, fire, luster, durability, and rarity. Moissanite's beauty is objectively derived from its refractive index, which is higher than other gemstones, including diamond, and its hardness is greater than all known gemstone materials except diamond. As a result, moissanite jewels, like diamond, can be cut with sharp, well-defined, and highly polished facets that accentuate their brilliance and fire. The cutting specifications (facet arrangement and proportions) for moissanite jewels are designed to maximize the brilliance and fire of the material. Additionally, we evaluate the finished jewels to exacting standards with automated video-imaging equipment and specially trained quality control personnel. Due to the rare natural occurrence of moissanite and both the proprietary and technical limitations in producing mass quantities of jewel-quality moissanite, we believe that moissanite is among the rarest of jewels.

To date, we have focused our development, manufacturing, and distribution efforts on near-colorless moissanite jewels, although we have produced and sold limited quantities of green moissanite jewels and expect to increase our sales and marketing efforts of green and other colored moissanite jewels.

The following table compares the physical properties of moissanite jewels with other fine gemstone materials:

**Comparison Chart<sup>(1)</sup>**

Description	Refractive Index	Dispersion	Luster	Hardness (Mohs Scale) <sup>(2)</sup>	Toughness
Charles & Colvard Created Moissanite®	2.65-2.69	0.104	20.4%	9 ¼	Excellent
Diamond	2.42	0.044	17.2%	10	Excellent*
Cubic Zirconia (CZ)	2.17	0.060	13.6%	8 ½	Good
Ruby	1.77	0.018	7.7%	9	Excellent**
Sapphire	1.77	0.018	7.7%	9	Excellent**
Emerald	1.58	0.014	5.1%	7 ½	Good to Poor

\*In cleavage direction, toughness is "good"      \*\*Except twinned stones

1. Sources: Gemological Institute of America, Gem Reference Guide for GIA Colored Stones, Gem Identification and Colored Stone Grading Courses 32-35, 65-82, 87-90 (1995); Cornelius S. Hurlburt, Jr. & Robert C. Kammerling, Gemology 320-324 (2d Ed. 1991); Kirk-Othmer, Encyclopedia of Chemical Technology 524-541 (5<sup>th</sup> Ed. 2004); Institution Of Electrical Engineers, Properties of Silicon Carbide (Gary L. Harris, Ed., 1995); Robert Webster, Gems: Their Sources, Descriptions and Identification 889-940 (5<sup>th</sup> Ed. 1994); W. von Muench, "Silicon Carbide" in Landolt-Börnstein Numerical Data and Functional Relationships in Science and Technology, New Series, Group III, Vol. 17C, pp. 403-416 and 585-592 (M. Schultz and H. Weiss, Eds., 1984); Kurt Nassau, Shane F. McClure, Shane Elen & James E. Shigley, "Synthetic Moissanite: A New Diamond Substitute", Gems & Gemology, Winter 1997, 260-275; Kurt Nassau, "Moissanite: A New Synthetic Gemstone Material", Journal of Gemmology, 425-438 (1999).
2. The Mohs Scale is a relative scale only, and quantitative comparisons of different gemstone materials cannot be made directly using the Mohs Scale. Moissanite jewels, while harder than all other known gemstones, are approximately one-half as hard as diamond.

## Products and Product Development

### *Moissanite jewels*

We primarily sell near-colorless moissanite jewels cut in a variety of shapes including round, square brilliant, princess, cushion, radiant, pear, marquise, heart, and oval in sizes ranging from approximately 1.3 to 12 millimeters (approximately 0.008 to 5.3 carats). In the future, we may elect to offer, from time to time, additional cuts and sizes of moissanite jewels.

To evaluate the market potential of colored moissanite, we had produced and distributed with moderate success in prior years a limited quantity of green moissanite jewels. Beginning in the latter part of 2011, we increased our marketing efforts of green jewels, including those set in finished jewelry mountings, and identified several markets into which we plan to expand our sales of green jewels in 2012. In addition, our agreement with Serenity encompasses, in addition to its patented whitening treatment processes, exclusive distribution rights to its proprietary technologies for treating moissanite to produce various colors.

### *Finished jewelry featuring moissanite*

We began manufacturing finished jewelry featuring moissanite in early 2010, with sales commencing in April 2010. Our basic designs include stud earrings, solitaire and three-stone rings, pendants, and bracelets. We are also manufacturing more fashion-oriented, designer-inspired jewelry that we offer as an expansion to the basic line of jewelry. Currently, most of this fashion jewelry is made-to-order for select customers, primarily home television shopping networks that feature it on a televised broadcast, though we also inventory a number of these pieces for our sample line and resale through our direct-to-consumer sales channels. The primary ingredients of our finished jewelry are loose moissanite jewels that we have on hand as part of our finished goods inventory, white or yellow gold settings, and labor to mount the jewels into the settings. We have also created several pieces of jewelry in alternative metals such as sterling silver and palladium.

## Source of Raw Material

Our moissanite jewels are made from gem-grade SiC crystals. Our sole supplier of SiC crystals is Cree, Inc., or Cree, with which we have certain exclusive supply rights for SiC crystals to be used for gemstone applications. We source the metals used for our finished jewelry, including white and yellow gold, sterling silver, and palladium, from a number of manufacturers located primarily in the U.S., China, South Korea, Thailand, the Dominican Republic, and Mexico.

### *Amended and Restated Exclusive Supply Agreement with Cree*

In June 1997, we entered into an Amended and Restated Exclusive Supply Agreement with Cree, or the Cree Exclusive Supply Agreement, in which we agreed to purchase from Cree at least 50%, by dollar volume, of our raw material SiC crystal requirements for use in the manufacture of moissanite jewels in each calendar quarter during the term of the Cree Exclusive Supply Agreement, and Cree agreed to supply this amount of crystals to us. In September 2008, we suspended our commitment to purchase SiC crystals that Cree had previously manufactured under a 2007 purchase commitment, and we made no purchases in 2009. Effective March 22, 2010, we entered into a letter agreement with Cree in connection with the Cree Exclusive Supply Agreement under which we agreed to purchase, over a period of approximately eight months in 2010, approximately \$1.17 million of these previously manufactured SiC crystals. We made no SiC crystal purchases in 2011. At December 31, 2011, we had no outstanding purchase commitments under the Cree Exclusive Supply Agreement.

The Cree Exclusive Supply Agreement prohibits us, without Cree's consent, from entering into an exclusive marketing or distribution agreement with any party that Cree reasonably believes is affiliated with any of the following parties:

- DeBeers;
- the Central Selling Organization (the international cartel of diamond producers) or its successors;
- any party whose primary business is the development, manufacture, marketing, or sale of diamond gemstones; or
- any non-gemstone and non-jewelry industry competitor of Cree.

These provisions may limit our potentially available avenues of distribution and could prevent us from entering into certain potentially profitable transactions.

## Intellectual Property

We have U.S. product and method patents for moissanite jewels, expiring in 2015, under which we have broad, exclusive rights to manufacture, use, and sell moissanite jewels in the U.S. We have these same patents in 25 foreign jurisdictions primarily across Asia and Europe, expiring in 2016, and in Mexico, expiring in 2021. In addition, we have certain trademarks and pending trademark applications that support our moissanite branding strategy. Our success and our ability to compete successfully depend in part upon our proprietary technology. In addition to our patents, we rely on trade secret laws and employee, consultant, and customer confidentiality agreements to protect certain aspects of our technology. We currently are not subject to any claims that our products or processes infringe on the proprietary rights of third parties. At the present time, we are also dependent on Cree's technology for the production of SiC crystals. Cree is exclusively licensed to use a patent concerning a process for growing large single crystals of SiC, has certain patents of its own relating to growth of large single crystals of SiC, and has a patent for a process for growing near-colorless SiC crystals.

On July 26, 2011, we learned that BetterThanDiamond.com requested that the USPTO conduct an ex parte re-examination of our U.S. Patent No. 5,723,391, or the '391 Patent, for manufacturing SiC gemstones based on claims of prior art. On October 5, 2011, the USPTO granted the re-examination request based on its finding that the information provided in the request raises "a substantial new question of patentability." We firmly believe that the '391 Patent is valid and enforceable, and we are committed to vigorously defending the '391 Patent. Notwithstanding the '391 Patent, the Cree Exclusive Supply Agreement for the supply of gem-quality SiC crystals required to fashion moissanite jewels extends through mid-2015.



## **Manufacturing and Quality Assurance**

### *Moissanite jewels*

The production of Charles & Colvard Created Moissanite® jewels is an elaborate process developed over a number of years of collaborative research and development, acquired and learned knowledge from scientists, and considerable investment expense.

Following are the key manufacturing processes of our moissanite jewels:

- growing gem-grade raw SiC crystals;
- manufacturing rough preforms;
- polishing jewels; and
- inspecting, sorting, and grading.

*Growing gem-grade raw SiC crystals* - SiC crystal growth suitable for gem-grade usage at commercial quantities is proprietary both in design and in operational methodology. Cree has grown the majority of our SiC crystals in accordance with the terms of the Cree Exclusive Supply Agreement. We routinely evaluate the yield and quality of saleable moissanite jewels from SiC crystals. The yield of saleable jewels from each crystal is one of the most significant factors affecting the volume and cost of moissanite jewels available for sale. Yield is dependent on the quality of the crystals, and variations in crystal quality can adversely affect our gross margin percentage.

*Manufacturing rough preforms* - We have made considerable investment in the design, development, and customization of a proprietary manufacturing process that includes equipment, software, and procedures to maximize raw material yield. The result is production of intermediary shapes, called “preforms,” that vary depending upon the size and shape of the finished jewel. We continue to invest research and development resources to improve raw material yield, including studying alternate preform shapes and cutting technologies, due to the dramatic effect such an improvement could have on our gross margin percentage.

*Polishing jewels* - Each preform is hand faceted and polished based on master designs with multiple quality control measures built into the process. Gem-cutter training is a regimented program involving several months of progressive hands-on bench training.

*Inspecting, sorting, and grading* - Similar to other gemstones, each faceted moissanite jewel is individually graded against established master standards using specially trained personnel. Additionally, as part of our overall quality assurance program, a representative sample from each batch of jewels is submitted to an image analyzer to ensure critical angles and other attributes designed to maximize moissanite’s optical properties are consistently maintained. This phase of manufacturing is relatively labor-intensive and requires skills not readily available in the general work force. In the future, we may elect to outsource certain portions of this stage of the manufacturing process to independent third parties that we will require to adhere to our rigorous quality control and monitoring standards.

### *Finished jewelry featuring moissanite*

Our finished jewelry line is developed by a team of industry experts integrating our moissanite jewels into many forms of jewelry, generally made of 14 karat gold, but also certain alternative metals such as sterling silver and palladium, either designed or purchased by us utilizing a core group of suppliers, manufacturers, and finishers.

Following are the key manufacturing processes of our finished jewelry:

- market research and product development;
- sourcing of ethically sound suppliers, manufacturers, and finishers;
- manufacturing finished jewelry; and
- quality assurance.

*Market research and product development* - We continually monitor current market conditions within the jewelry and fashion industries for insight in developing products that are relevant to future market opportunities. This process is designed to ensure that we are at the forefront of the trend cycles and are able to act quickly and effectively in our effort to take advantage of just-in-time manufacturing practices and to develop a manageable

inventory strategy. This forward planning allows us to efficiently procure precious metal raw materials, such as gold, and to provide a product that is both valuable and cost effective.

*Sourcing of ethically sound suppliers, manufacturers, and finishers* - In an effort to be good stewards to the jewelry consumer, we leverage the resources of jewelry industry watchdog groups to evaluate our supplier, manufacturer, and finisher groups to help ensure that we are in compliance with all applicable laws in regard to gemstones and precious metals.

*Manufacturing finished jewelry* - All the components procured are sourced from our approved suppliers, and each finished jewelry item is jobbed utilizing our enterprise resource planning system. The components comprised in each job are then manufactured into finished jewelry by assemblers either in the U.S. or internationally in China, South Korea, Thailand, the Dominican Republic, or Mexico, the location of which is typically determined by cost, timing, and styling considerations. Producing domestically provides us with an innate ability to react quickly and to produce items in a manner that tends to be more efficient from a channel distribution standpoint. Producing internationally, especially in volume, tends to be more cost effective for jewelry assembly that is labor intensive or requires precision setting, such as micro-pave styles.

*Quality assurance* - All finished jewelry produced by us undergoes a multi-point inspection process before being allocated as available for sale. A representative sampling of manufactured finished jewelry items undergoes stone and metals testing to ensure that the items for sale are of the quality that we strive to maintain. If required by government ordinance or requested by a customer, we facilitate the inspection of our finished jewelry by internationally recognized testing facilities to comply with legal requirements and to ensure consumer confidence.

## **Marketing and Distribution**

Because channel sell-through, as opposed to sell-in, generates reorders and also leads to long-term sustainable sales, the development of our current marketing strategy began with the analysis of thousands of historic sales records to identify what consumer demographic historically purchased moissanite finished jewelry products. Our review indicated that the target demographic is predominantly a woman over the age of 35 with middle to upper-middle income. Retail finished jewelry price points were strongest from \$99 to \$399, and over 70% of the time the product was bought as a self-purchase. Through multiple prior focus groups and interviews, it was also revealed that moissanite was purchased as a diamond alternative; however, the moissanite jewel is positioned above all other alternatives in that it is unique with properties similar to and, in some cases, better than a diamond.

Recognizing that the U.S. is a \$65 billion jewelry market, we see an opportunity to position finished jewelry featuring moissanite as a provider of incremental sales and margin for our company as well as savvy retailers. As such, we are currently focusing our efforts where we believe we can achieve the most meaningful sales inroads, including the design and manufacture of our own proprietary brands of finished jewelry to such sales channels as home shopping networks, certain retail customers, and through our own direct-to-consumer e-commerce and home party businesses. We also continue to explore exclusive loose-jewel supply relationships with select jewelry manufacturers that provide sales and distribution rights for retailers currently in their portfolio. With the assurance of exclusivity to select retailers, key manufacturers are more willing to make the investment in gold and labor, as well as marketing and display materials, to produce finished jewelry featuring moissanite. The process is slow and deliberate, usually requiring a pilot program that could take several months prior to a complete rollout. Lastly, we are continuing to evaluate the feasibility of additional direct-to-consumer sales channels for our moissanite jewels and finished jewelry featuring moissanite, such as franchised stores.

### *Marketing*

*Consumer advertising* - We are developing multiple brands for both the moissanite jewel and our collections of finished jewelry featuring moissanite to help increase consumer awareness, expand moissanite's global reach, develop additional marketing channels to the jewelry trade and the consumer, and help define a more compelling consumer value proposition that we believe will drive increased demand for our products. We are supporting these initiatives with Internet and social media campaigns on such websites as Facebook, Twitter, and YouTube designed to communicate with the consumer in fun, engaging, and informative ways. We believe moissanite jewels and finished jewelry featuring moissanite are products that lend themselves to viral marketing and word-of-mouth advertising through online communities because of the passion many consumers of moissanite possess. We also expect this form of advertising to be more cost effective than traditional television, radio, and print awareness

advertising.

In addition, because education of the consumer is so important to sell-through of moissanite products, we are redesigning our corporate website [www.charlesandcolvard.com](http://www.charlesandcolvard.com) and our educational website [www.whatismoissanite.com](http://www.whatismoissanite.com) with expected deployments in the first half of 2012. Our redesigned corporate website will include general background information about our company, leadership bios, overviews of our various brands, a list of domestic and international authorized distributors, and robust investor relations content, among other features. Our educational website currently provides comprehensive information and interactive tools to allow visitors to learn about moissanite - its history, comparison of the jewel's properties with other jewels, and its features described by streaming video with expert commentary. The website also serves as a related hotlink or microsite that may be located on the retailer's moissanite landing page and allows the consumer to learn more without leaving the retailer's website. We expect our redesigned educational website will have many of these same features along with an improved user interface and updated content.

*Cooperative advertising* - A number of our loose moissanite jewel wholesale customers participate in our cooperative advertising program, which reimburses, via a credit towards future purchases, a portion of their marketing costs based on the amount of their purchases from us, subject to the customer providing us documentation of all advertising copy that includes our products. We have worked over the past year to deliver more consistent messaging to the end consumer through our cooperative advertising program by developing and making available to our wholesale customers such new and updated selling tools as displays, catalogs, postcards, brochures, certification cards, warranties, backlit signage, banners, and television commercial spots, many of which can be modified to include the customer's logo and contact information.

*Public relations* - Public relations activities can be an important component of our marketing and are integral to supporting the launch of new moissanite jewel and finished jewelry retailers and independent jewelers. We also expect these activities to play a major role in any new initiative we may pursue, including moissanite jewel and finished jewelry brands, jewelry collections by recognized designers, and celebrity endorsements. Our objectives with public relations events are to increase moissanite awareness, interest, and purchase intent at the consumer level by generating editorial coverage and moissanite jewelry product placement, including Internet promotions and sweepstakes giving away moissanite jewelry. We are continuing our pursuit of public relations activities in 2012, which include increased news coverage of our company by business, trade, and investment periodicals and television broadcasts, the possible identification of one or more celebrity spokespersons, and product placement opportunities.

*Marketing to the trade* - Based on consumer market research over a period of several years, we have learned that the primary reason a consumer purchases the moissanite jewel is because of its diamond-like characteristics and its affordability, especially in larger stone sizes. As a result, we are focusing our marketing efforts to the trade to position moissanite as the best diamond alternative available that can help secure a high-margin sale on both the jewel and a mounting when the sale might otherwise have been lost due to the price point of a comparably sized diamond piece. In 2012, our plan is to also target the trade with print advertisements featuring our new *Forever Brilliant™* enhanced moissanite jewel and finished jewelry featuring the *Forever Brilliant™* jewel. We expect the success of this marketing initiative to increase in light of the fact that diamond wholesale prices have increased over the past several years.

In addition, we maintain relationships with such major jewelry industry organizations as the Jewelers Board of Trade, Jewelers Vigilance Committee, Jewelers' Security Alliance, American Gem Society, Manufacturing Jewelers and Suppliers of America, and Jewelers for Children and such jewelry trade publications as Jewelers' Circular Keystone (JCK) and National Jeweler as an opportunity to communicate with our peers on a consistent basis through media coverage, trade shows, action committees, and charitable events, among others.

As we proceed with our consumer awareness and value proposition initiatives through social media and other viral marketing efforts, we have shifted more of our advertising and marketing dollars to a consumer-oriented pull strategy to motivate consumer purchases.

*Trade shows* - Our attendance at leading jewelry trade shows worldwide has helped us extend our outreach to customers as the economic climate and corporate structure has continued to change. Whether we engage as a sponsor, an exhibitor, or a participant assisting our loose moissanite jewel and finished jewelry wholesale customers, it is apparent that the customers appreciate our efforts to connect personally with them. In 2012, we plan to attend



major domestic and international jewelry industry trade shows, including JCK in Las Vegas and the Hong Kong Gem and Jewellery Fair.

### *Distribution*

*Domestic* - Traditionally, consumers have purchased finished jewelry through independent and chain jewelry stores and department stores. More recently, major shifts are occurring in the retail environment for jewelry. Traditional sales channels (such as independent jewelry stores, mall-based chain jewelers, and mid-market department stores) are contracting while other channels, such as e-commerce, wholesale shopping clubs, and mass-market retailers are expanding their presence in the jewelry market. Traditional retailers have consolidated by closing non-productive locations and some have declared bankruptcy. At the manufacturing level in the U.S., the shift of jewelry production and design to low-cost markets such as China and India has created dramatic consolidation, with remaining manufacturers struggling to survive or create a competitive advantage. Today, finished jewelry featuring moissanite is sold to consumers through a broad range of channels, including single- and multiple-location independent jewelry stores, jewelry store chains, online retailers, television shopping channels, department stores, and catalogs. Historically, we have primarily sold our loose moissanite jewels to wholesale distributors and finished jewelry manufacturers, which in turn set them in mountings and sold to retailers or resold the loose jewels at a markup. While we plan to continue this aspect of our business, in 2010 we began mounting our loose jewels into our own jewelry, which we currently sell at wholesale to home shopping networks and select retailers.

In August 2011, we launched our direct-to-consumer e-commerce website, [www.moissanite.com](http://www.moissanite.com), that features primarily finished jewelry featuring moissanite manufactured by us and several of our key distributors. Several of these key distributors also assist in providing fulfillment of these products. In January 2012, we also soft-launched our direct-to-consumer home party business, *Lulu Avenue*, that features over 200 quality jewelry products blending fashion and fine moissanite jewelry sold to consumers in convenient, comfortable venues.

We continue to evaluate the most appropriate structure for distribution and may, in certain circumstances, enter into direct distribution arrangements, including arrangements with select department stores, specialty jewelry chains, and distribution channels such as moissanite retail stores, catalogs, or online retailers. We also expect distribution of finished jewelry featuring moissanite to increase in 2012 and future years as new sales channels, such as e-commerce and home parties and possibly franchised stores, evolve and as consumer awareness resulting from our marketing initiatives increases.

We seek to participate with retailers in training their sales and marketing personnel in moissanite sales positioning and strategies. We also aim to work with them to create focused advertising and promotional efforts to publicize special sales events at select store locations. In addition, to facilitate new or expanded distribution, we have allowed a limited amount of loose moissanite jewel and finished jewelry inventory to be placed in stores on a consignment basis.

We generally have contracts and agreements with our distributor, manufacturer, and retailer customers with some variations in terms and duration. We also continue to have ongoing dialogue with the key distributors and manufacturers we have identified that have specific retailers in their portfolios fitting our future strategy to allow exclusive moissanite finished jewelry relationships with these retailers.

*International* - Our international distributors continue to educate their clients and consumers about the moissanite jewel. Distributors that adhere to our branding guidelines are generally eligible for cooperative advertising and marketing allowances. Recognizing that each distributor's approach to market can be as unique as the culture in which it operates, we relaxed our branding guidelines to accommodate more flexibility in order to achieve greater acceptance in more markets. However, as we develop our consumer messaging and branding, we expect the availability of such selling tools as displays, catalogs, postcards, brochures, certification cards, warranties, backlit signage, banners, and television commercial spots, many of which can be modified to include the customer's logo and contact information, to supplement our international distributors' advertising, marketing, and public relations campaigns that are designed to be successful in their markets. With the world market opportunities being an integral part of our overall goals, we will continue to explore international promotional support initiatives.

We currently have distributors for loose moissanite jewels covering portions of Western Europe, Australia, India, Southeast Asia, and the Middle East. We have approximately 28 international distributors and may increase this number. We have continued to invest in certain international markets that we believe have the most potential with

respect to acceptance and sales of the moissanite jewel, including China, India, Vietnam, Kazakhstan, Australia, the United Kingdom, and Russia. Export sales aggregated approximately \$5.37 million, or 33% of total net sales, and \$4.37 million, or 34% of total net sales, in 2011 and 2010, respectively. It should be noted that a portion of our international sales consists of jewels sold internationally that may be re-imported to U.S. retailers. More details on our financial information by geographic area are included in Note 3 to our consolidated financial statements included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

### **Seasonality**

Sales in the retail jewelry industry are typically seasonal due to increased consumer purchases during the Christmas and holiday season. Because we primarily sell our jewels direct to manufacturers and distributors, our sales to support the holiday season largely take place during the third and beginning of the fourth calendar quarters, depending on the level of advance planning and production our customers undertake; however, the effect of seasonality on our business is also impacted by the timing of orders we receive to support new or expanded distribution and the level of current inventory position held by our customers. In 2011, we experienced a higher degree of seasonality in the fourth quarter than we have previously experienced primarily as a result of Christmas and holiday season finished jewelry sales to television shopping networks. In future periods as sales of our finished jewelry increase to retailers and directly to consumers, both in dollars and as a percent of total sales, we anticipate a seasonality trend more typical with the retail jewelry industry, and these factors may significantly affect our sales in a given quarter.

### **Working Capital Practices**

Our primary source of working capital is cash on hand and cash generated by operations. Because the Cree Exclusive Supply Agreement prohibits Cree from selling SiC crystals for jewelry applications to anyone but us, Cree may, upon the expiration of the Cree Exclusive Supply Agreement and as a condition of renewal, negotiate minimum purchase commitments with us that may result in inventories that are higher than we might otherwise maintain. Our current inventory levels are sufficient to enable us to respond promptly to most customer orders, but we currently have backlogs in some moissanite loose jewel shapes and sizes, especially certain sizes of melee, or jewels smaller than 2.0 millimeters in diameter. We have responded to this backlog by increasing production of these jewels.

Our standard customer payment terms on trade receivables are generally between 30 and 90 days, though we may offer extended terms in limited circumstances and on significant orders from time to time. We extend credit to our customers based upon a number of factors, including an evaluation of the customer's financial condition and credit history, the customer's payment history with us, the customer's reputation in the trade, and/or an evaluation of the customer's opportunity to introduce our moissanite jewels or finished jewelry featuring moissanite to new or expanded markets.

Our return policy allows for the return of jewels and finished jewelry for credit generally within 30 days of shipment and must be returned for a valid reason, such as quality problems or an error in shipment. From time to time, some customers may have a contractual right to return a certain percentage of sales for any reason for specified periods of time. We have established an allowance for returns based on our historical return rate, which takes into account any contractual return privileges granted to our customers. Periodically, we ship loose jewel and jewelry finished goods to customers on consignment terms. Under these terms, the customer assumes the risk of loss and has an absolute right of return for a specified period.

### **Competition**

Our competitive success is reliant upon, in part, the following:

- our success in developing and promoting brands for our moissanite jewel and finished jewelry featuring moissanite, resulting in increased interest and demand for moissanite jewelry at the consumer level;
- the willingness and ability of our jewelry distributors and other jewelry suppliers, manufacturers, and designers to market and promote Charles & Colvard Created Moissanite<sup>®</sup> jewels to the retail jewelry trade;
- the willingness of distributors, retailers, and others in the channel of distribution to purchase loose Charles & Colvard Created Moissanite<sup>®</sup> jewels and the willingness of manufacturers, designers, and retail jewelers to undertake setting of the loose jewels;

- our ability and the ability of manufacturers, designers, and retail jewelers to select jewelry settings that encourage consumer acceptance of and demand for our moissanite jewels and finished jewelry;
- our ability and the ability of jewelry manufacturers and retail jewelers to set loose moissanite jewels in finished jewelry with high-quality workmanship;
- our ability and the ability of retail jewelers to effectively market and sell finished jewelry featuring moissanite, including finished jewelry featuring our *Forever Brilliant™* enhanced jewels, to consumers; and
- our ability to operationally execute our direct-to-consumer e-commerce and home party businesses.

### *Moissanite jewels*

Gemstone materials can be grouped into three types:

- natural gemstone, which is found in nature;
- synthetic gemstone, which has the same chemical composition and essentially the same physical and optical characteristics of natural gemstone but is created in a lab; and
- simulated or substitute material, which is similar in appearance to natural gemstone but does not have the same chemical composition, physical properties, or optical characteristics.

Our moissanite jewel competes with fine gemstones such as ruby, sapphire, emerald, and tanzanite as well as with natural, synthetic, and treated diamonds. We may also face competition from synthetic diamonds, synthetic diamond films, and other sources of synthetic moissanite not presently available in qualities, sizes, and volumes suitable for use as gemstones. Some suppliers of diamonds and other fine gemstones, as well as the suppliers of synthetic and simulated gemstones, have substantially greater financial, technical, manufacturing, and marketing resources and greater access to distribution channels than we do.

We market our unique jewel as an affordable, luxurious alternative to diamond at price points that make our jewel more attainable by many consumers. The diamond industry enjoys higher consumer desirability and acceptance, which has been iconized by the “Diamonds are Forever” marketing campaign. Historical efforts to differentiate moissanite from diamond as a unique jewel by virtue of its distinctive composition and its superior optical characteristics remain a challenge, as moissanite resembles diamond in the eyes of consumers. Therefore, we shifted our marketing strategy of moissanite to be a high-quality alternative to diamond beginning in the fourth quarter of 2009.

The worldwide market for large, uncut, high-quality natural diamonds is significantly consolidated and controlled by DeBeers (headquartered in South Africa), Alrosa (Russia), Rio Tinto (Australia), and BHP (Canada). These companies have a major impact on the worldwide supply and pricing of natural diamonds at both the wholesale and retail levels. Diamond producers may undertake additional marketing or other activities designed to protect the diamond jewelry market against sales erosion from consumer acceptance of moissanite jewels.

We may also face competition from treated and synthetic diamonds. Treated diamonds, which are natural diamonds with imperfections or flaws that have been altered in some manner to enhance their appearance, have been available in the jewelry industry for the past several decades and are generally less expensive than diamonds of similar size, cut, and color that have not been altered. Synthetic diamonds are also available in the marketplace and are produced for jewelry applications available to consumers; however, most synthetic diamonds that are sold today are in the yellow color range. Although we believe that colorless gemstone-quality synthetic and treated diamonds presently cannot be produced at prices competitive with those currently offered for our near-colorless moissanite jewels, there can be no assurances that such competitive prices cannot be achieved in the future by the producers of either or both synthetic and treated diamonds. The primary producers of synthetic diamonds used for industrial applications are DeBeers, Sumitomo, and GE. There are also a number of Russian producers of synthetic diamonds for industrial uses. In addition, companies such as Gemesis Corporation, Chatham, and Apollo Diamonds are synthesizing diamonds in limited quantities, limited carat sizes, and in limited ranges of color. Synthetic diamond films can be grown at commercially viable prices in thicknesses that can be applied to various surfaces such as other synthetic materials.

Although we believe that our moissanite jewel has a proprietary position, we could face competition from other companies that develop competing SiC technologies. Some of these technologies could be developed by producers of SiC used for other industrial applications. Manufacturers of industrial SiC products include The Carborundum

Corporation (currently for abrasive uses); and Cree, Siemens AG, Norstel, Bridgestone, ABB, Dow Chemical, SiC Crystal AG, and Northrop Grumman Corporation (currently for semiconductor uses). We believe that Cree is currently the only supplier of SiC crystals in colors, sizes, and volumes that are suitable for gemstone applications. It is possible, however, that these or other producers of SiC could develop SiC crystals suitable for gemstone applications and produce moissanite jewels until we could obtain judicial enforcement of our patent rights. It is also possible that such competition could emerge in geographic territories where we might not have adequate patent protection.

We may also, to a lesser degree, face competition from existing diamond simulants and other synthetic gemstones, including cubic zirconia. Producers and sellers of these products may see the markets for these products being eroded by the market penetration of our moissanite jewels. We believe that the substantially lower price of these products is the primary basis upon which they will compete with our moissanite jewels; however, they are not considered fine jewelry products.

#### *Finished jewelry featuring moissanite*

The global jewelry market is approximately \$145 billion and competition is fierce. Such well-known jewelry designers and manufacturers as David Yurman, Tacori, Harry Winston, Tiffany & Co., and Pandora, among others, have a variety of jewelry collections featuring diamonds and other precious and semi-precious gemstones, strong brand recognition, and a loyal consumer following. These companies also have greater financial resources than we do to develop and market their products.

We intend to expand our market share and compete with these well-known brands primarily on the basis of price, as moissanite is the highest quality, affordable alternative available to more expensive gemstones such as diamond. We believe that focusing on the clear advantages in its retail price points, especially in the one-carat and larger sizes, will provide a key point of differentiation to the end consumer who may not have had the opportunity previously to purchase fine jewelry due to limitations in discretionary spending income.

In addition, we believe that the Charles & Colvard Created Moissanite<sup>®</sup> brand, in addition to other brands for both the moissanite jewel, including *Forever Brilliant*<sup>™</sup> for our enhanced whiter jewels, and finished jewelry featuring moissanite that we are developing pursuant to our marketing programs, may create a long-term competitive advantage for our products as we build brand recognition. We endeavor to partner with recognized designers and jewelry companies, in addition to our own proprietary brands of finished jewelry, to set our moissanite jewels in desirable basic and fashion-oriented finished jewelry designs. While our finished jewelry business is still in the early stages of development, our goal is to build multiple strong brands sought after by the end consumer as our intellectual property rights expire in the future. We propose to focus our marketing efforts on emphasizing our attractive designs, coupled with moissanite's exceptional brilliance, fire, luster, durability, and rarity to establish moissanite as a primary consumer choice in fine jewelry.

Our design, manufacture, and marketing of finished jewelry featuring moissanite under exclusive brands for sale to distributors and retailers may result in some of our current customers perceiving us as a competitor, despite our efforts to use primarily non-conflicting sales channels. As we continue to develop our finished jewelry business, we intend to increase distribution through new and existing channels without diminishing existing distributor and manufacturer relationships similarly to how many other companies have executed cross-channel marketing and distribution strategies. Due to the size of the finished jewelry market, we believe that such sales channels can co-exist, with the overall end result being increased consumer and brand awareness of moissanite products and a corresponding increased demand for not only our products, but those of our distributor and manufacturer customers as well.

#### **Government Regulation**

We are subject to governmental regulations in the manufacture and sale of moissanite jewels. In particular, the Federal Trade Commission, or FTC, has the power to restrict the offer and sale of products that could deceive or have the tendency or effect of misleading or deceiving purchasers or prospective purchasers with regard to their type, kind, quality, character, origin, or other characteristics. The FTC has issued regulations and guidelines governing the marketing of synthetic gemstones and other gemstones similar to diamond that require such gemstones to be clearly identified in any promotional or marketing materials. In addition, the precious metal in our finished jewelry may be subject to requirements, which vary by country and by state, such as hallmarking and alloy



content. If our actions are found to be in violation of FTC or other governmental regulations, we could be forced to suspend marketing of our products and could incur significant expenses in developing new marketing strategies and materials that would not violate FTC regulations.

### **Research and Development**

We invested approximately \$146,000 and \$100,000 in research and development during the years ended December 31, 2011 and 2010, respectively, primarily for the study of product enhancement and manufacturing process efficiencies.

### **Employees**

As of March 23, 2012, we had a total of 46 employees, 43 of which were full-time. None of our employees are represented by a labor union. We believe that our employee relations are good.

### **Directors and Executive Officers of Charles & Colvard, Ltd.**

The members of our current Board of Directors are the following:

*George R. Cattermole*  
Chairman of the Board

*David B. Barr*  
Chairman of PMTD Restaurants LLC; Chairman of the Board of Directors of Rita Restaurants LLC;  
Member of the Boards of Directors of Del Frisco's Restaurant Group, LLC; Mrs. Fields Original Cookies,  
Inc.; and Bistro Restaurant Group

*H. Marvin Beasley*  
Retired former Chief Executive Officer of Helzberg Diamonds, a retail jewelry store chain

*Steven M. Larkin*  
Senior Vice President, Direct at Golfsmith International Holdings, Inc., a specialty retailer of golf and  
tennis equipment, apparel, and accessories

*Dr. Charles D. Lein*  
Retired former President and Chief Operating Officer of Stuller, Inc., a manufacturer and distributor of  
jewelry and jewelry-related products

*Randall N. McCullough*  
President and Chief Executive Officer of Charles & Colvard, Ltd.

*Ollin B. Sykes*  
President of Sykes & Company, P.A., a regional accounting firm specializing in accounting, tax, and  
financial advisory services

Our current executive officers are the following:

*Randall N. McCullough*  
Chief Executive Officer

*Timothy L. Krist*  
Chief Financial Officer and Treasurer

*Thomas G. Pautz*  
Vice President, Sales & Marketing

## Available Information

Our corporate information is accessible through our Internet website at [www.charlesandcolvard.com](http://www.charlesandcolvard.com). We are not including the information contained on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available, free of charge, access on our website to all reports we file with, or furnish to, the SEC, including our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. A copy of this Annual Report on Form 10-K and our other reports is available without charge upon written request to Investor Relations, Charles & Colvard, Ltd., 300 Perimeter Park Drive, Suite A, Morrisville, North Carolina 27560.

### Item 1A. Risk Factors

We operate in a dynamic and rapidly changing business environment that involves substantial risk and uncertainty, and these risks may change over time. The following discussion addresses some of the risks and uncertainties that could cause, or contribute to causing, actual results to differ materially from expectations. In evaluating our business, you should pay particular attention to the descriptions of risks and uncertainties described below. If any of these risks actually occur, our business, financial condition, or results of operations could be materially and adversely affected.

***Our future financial performance depends upon increased consumer acceptance, growth of sales of our products, and operational execution of our strategic initiatives.*** We believe that most consumers are not generally aware of the existence and attributes of moissanite jewels and that the consumer market for moissanite jewels and finished jewelry featuring moissanite remains in the early stages of development. Total moissanite jewelry retail sales have historically been less than 1% of the total jewelry market. The degree of future market acceptance and demand is subject to a significant amount of uncertainty. Our future financial performance will depend, in part, upon greater consumer acceptance of moissanite jewels, including our *Forever Brilliant™* enhanced jewels, as an affordable, luxurious alternative to other gemstones, such as diamond, and our ability to develop brands and execute strategic initiatives, including our direct-to-consumer e-commerce and home party businesses, to grow our sales. In addition, consumer acceptance may be affected by retail jewelers' and jewelry manufacturers' acceptance of moissanite jewels and finished jewelry featuring moissanite and the new enhancement process applied to our *Forever Brilliant™* enhanced jewels. The quality, design, and workmanship of the jewelry settings, whether manufactured by us or other manufacturers, could affect both consumers' perception and acceptance of our jewels and costs incurred by returns and markdowns.

Thus, our future financial performance may be affected by:

- our success in developing and promoting brands for our moissanite jewel and finished jewelry featuring moissanite, resulting in increased interest and demand for moissanite jewelry at the consumer level;
- the willingness and ability of our jewelry distributors and other jewelry suppliers, manufacturers, and designers to market and promote Charles & Colvard Created Moissanite® jewels to the retail jewelry trade;
- the willingness of distributors, retailers, and others in the channel of distribution to purchase loose Charles & Colvard Created Moissanite® jewels and the willingness of manufacturers, designers, and retail jewelers to undertake setting of the loose jewels;
- our ability and the ability of manufacturers, designers, and retail jewelers to select jewelry settings that encourage consumer acceptance of and demand for our moissanite jewels and finished jewelry;
- our ability and the ability of jewelry manufacturers and retail jewelers to set loose moissanite jewels in finished jewelry with high-quality workmanship;
- our ability and the ability of retail jewelers to effectively market and sell finished jewelry featuring moissanite, including finished jewelry featuring our *Forever Brilliant™* enhanced jewels, to consumers; and
- our ability to operationally execute our direct-to-consumer e-commerce and home party businesses.

***We are currently substantially dependent on a limited number of distributors, jewelry manufacturers, and retailers for the sale of our products.*** The majority of the moissanite jewels and finished jewelry featuring moissanite that we sell are distributed through a limited number of distributors, manufacturers, and retailers and, therefore, we are substantially dependent upon these companies for distribution of our products. During 2011, our three largest customers, two of which are loose jewel distributors and one of which is a television shopping network

loose jewel and finished jewelry retailer, collectively accounted for 38% of gross sales. As we continue to build our finished jewelry business, we anticipate in the near term that the majority of the moissanite jewels and finished jewelry featuring moissanite that we sell will continue to be to a limited number of manufacturers, distributors, and retailers.

***Our current wholesale customers may potentially perceive us as a competitor in the finished jewelry business.*** As described above, we are currently substantially dependent on a limited number of customers, including distributors and jewelry manufacturers, for the sale of our products. Our design, manufacture, and marketing of finished jewelry featuring moissanite under exclusive brands for sale to distributors and retailers may result in some of these current customers perceiving us as a competitor, despite our efforts to use primarily non-conflicting sales channels. In response, these customers may choose to reduce their orders for our products. This reduction in orders could occur faster than our sales growth in this new business, which could materially and adversely affect our business, results of operations, and financial condition.

***Our business and our results of operations could be materially adversely affected as a result of general economic and market conditions, including the current economic environment.*** Global financial markets have experienced extreme disruptions, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. We are unable to predict the likely duration and severity of the effects of these disruptions in the financial markets and the adverse global economic conditions, and if the current uncertainty continues or economic conditions further deteriorate, our business and results of operations could be materially and adversely affected. The consequences of such adverse effects could include interruptions or delays in our suppliers' performance of our contracts, reductions and delays in customer purchases, delays in or the inability of customers to obtain financing to purchase our products, and bankruptcy of customers and/or suppliers.

Luxury products, such as fine jewelry, are discretionary purchases for consumers. The reduction in consumer discretionary spending, largely attributed to the conditions described above, has affected our industry more significantly than many other industries. Consumer discretionary spending is strongly affected by economic factors outside our control, including the condition of financial markets, consumer credit availability, prevailing interest rates, energy costs, employment levels, salary levels, and tax rates. A continued reduction in discretionary consumer spending could have a material adverse effect on our business and financial condition.

***We expect to remain dependent upon Cree for the supply of our SiC crystals for the foreseeable future.*** If we are unable to obtain sufficient, high-quality SiC crystals from Cree and we have a significant increase in demand for our moissanite jewel, then we may not be able to meet that demand. Cree has certain proprietary rights relating to its process for growing large single crystals of SiC and its process for growing near-colorless SiC crystals. Under the Cree Exclusive Supply Agreement, we are obligated to buy from Cree, and Cree is obligated to sell to us, at least 50%, by dollar volume, of our requirements for SiC material for the production of gemstones in each calendar quarter through June 2015. However, there can be no assurance that Cree will be able to continue to produce and supply us with SiC crystals of sufficient quality, sizes, and volumes that we desire or that we will successfully negotiate purchase commitments at acceptable prices that enable us to manage our inventories and raw material costs effectively.

***We face intense competition in the worldwide jewelry industry.*** The jewelry industry is highly competitive and we compete with numerous other jewelry products. In addition, we face competition from treated diamonds, synthetic diamonds, and companies developing other synthetic jewelry technologies. A substantial number of companies supply products to the jewelry industry, many of which we believe have greater financial resources than we do. Competitors could develop new or improved technologies that may render the price point for moissanite noncompetitive, which would have an adverse effect on our business, results of operations, and financial condition.

***The financial difficulties or insolvency of one or more of our major customers could adversely affect results.*** We are subject to a concentration of credit risk amongst our major customers, and a default by any of these customers on their debts to us could have a material adverse effect on our financial position. Future sales and our ability to collect accounts receivable depend, in part, on the financial strength of our customers. We estimate an allowance for accounts for which collectability is at risk and this allowance adversely impacts profitability. In the event customers experience greater than anticipated financial difficulties or insolvency, we expect profitability to be adversely impacted by our failure to collect accounts receivable in excess of the estimated allowance. Given the current economic environment, constrained access to capital and general market contractions may heighten our exposure to

customer default.

***We are subject to certain risks due to our international distribution channels and vendors.*** We currently have approximately 28 international distributors for moissanite jewels covering portions of Western Europe, Australia, India, Southeast Asia, and the Middle East. Our long-term strategy is to expand the number of international markets for our products. In addition, we expect to use certain companies based outside the U.S. to facet our moissanite jewels and to manufacture finished jewelry. Due to our reliance on development of foreign markets and use of foreign vendors, we are subject to the risks of conducting business outside of the U.S. These risks include the following:

- the adverse effects on U.S.-based companies operating in foreign markets that might result from war; terrorism; changes in diplomatic, trade, or business relationships; or other political, social, religious, or economic instability;
- the continuing adverse economic effects of the recent global financial crisis;
- unexpected changes in, or impositions of, legislative or regulatory requirements;
- delays resulting from difficulty in obtaining export licenses;
- tariffs and other trade barriers and restrictions;
- the burdens of complying with a variety of foreign laws and other factors beyond our control;
- the potential difficulty of enforcing agreements with foreign customers and suppliers; and
- the complications related to collecting receivables through a foreign country's legal system.

Additionally, while the majority of our foreign transactions are denominated in U.S. dollars, foreign currency fluctuations could impact demand for our products or the ability of our foreign suppliers to continue to perform. Further, some of our foreign distributors operate relatively small businesses and may not have the financial stability to assure their continuing presence in their markets. There can be no assurance that the foregoing factors will not adversely affect our operations in the future or require us to modify our anticipated business practices.

***Sales of moissanite jewelry could be dependent upon the pricing of precious metals, which is beyond our control.*** Any increases in the market price of precious metals (primarily gold) could affect the pricing and sales of jewelry incorporating moissanite jewels, including jewelry manufactured by us. The majority of price increases in precious metals are passed on to the consumer in the form of higher prices for finished jewelry. These higher prices could have a negative impact on the sell-through of moissanite jewelry at the retail level. From the beginning of 2006 through 2011, the price of gold has increased significantly (approximately 189%), resulting in higher retail price points for gold jewelry. This has had a negative impact on both sales of moissanite jewelry and the jewelry industry as a whole.

***Seasonality of our business may adversely affect our net sales and operating income.*** Sales in the retail jewelry industry are typically seasonal due to increased consumer purchases during the Christmas and holiday season. Because we primarily sell our loose jewels and finished jewelry featuring moissanite at wholesale to distributors, manufacturers, and retailers, our sales to support the holiday season largely take place during the third and beginning of the fourth quarters, depending on the sales channel and the level of advance planning and production our customers undertake. In addition, as sales of our loose jewels and finished jewelry featuring moissanite to retailers and directly to consumers increase, both in dollars and as a percentage of total sales, our fourth quarter results may depend upon the general level of retail sales during the Christmas and holiday season as well as general economic conditions and other factors beyond our control. In anticipation of increased sales activities during the fourth quarter, we may incur significant additional expenses, including higher inventory of finished jewelry in the second half of the year. In 2011, we experienced a higher degree of seasonality in the fourth quarter than we have previously experienced as a result of Christmas and holiday season finished jewelry sales to television shopping networks. Our quarterly results of operations may continue to fluctuate as a result of a number of factors, including seasonal cycles, the timing of new product introductions, the timing of orders by our customers, and the mix of product sales demand.

***We may not be able to adequately protect our intellectual property, which could harm the value of our products and brands and adversely affect our business.*** We rely primarily on patent, copyright, trademark, and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection. We have U.S. product and method patents for moissanite jewels, expiring in 2015, under which we believe that we have broad, exclusive rights to manufacture, use, and sell moissanite jewels in the U.S. We have these same patents in a number of foreign jurisdictions, most of which expire

in 2016. We believe that these patents create substantial technological barriers to our potential competitors. At the present time, we are also dependent on Cree's technology for the production of SiC crystals. There can be no assurance that any patents issued to or licensed by or to us or Cree will provide any significant commercial protection, that we or Cree will have sufficient resources to protect our respective patents, that any additional patents will be issued in the future, or that any existing or future patents will be upheld by a court should we or Cree seek to enforce our respective rights against an infringer.

Our former South Korean patent is no longer valid as a result of a ruling by the South Korean Patent Court, and there can be no assurance that we will not incur similar outcomes in other jurisdictions in the future. For example, on July 26, 2011, we learned that BetterThanDiamond.com requested that the USPTO conduct an ex parte re-examination of our '391 Patent for manufacturing SiC gemstones based on claims of prior art. On October 5, 2011, the USPTO granted the re-examination request. If the USPTO were to determine that some or all of the claims in the '391 Patent are invalid, our business, financial condition, and results of operations could be negatively impacted. In addition, the re-examination of the '391 Patent could result in substantial legal expenses and could divert our management's time and attention away from our business operations. We believe that all of the claims of the '391 Patent are valid and enforceable, and we intend to vigorously defend the patents that protect our moissanite jewels and technology.

The existence of valid patents does not prevent other companies from independently developing competing technologies. Existing producers of SiC crystals or others may refine existing processes for growing SiC crystals or develop new technologies for growing large single crystals of SiC or colorless SiC crystals in a manner that does not infringe patents owned or licensed by us or Cree. Accordingly, existing and potential competitors may be able to develop products that are competitive with or superior to our products, and such competition could have a material adverse effect on our business, results of operations, and financial condition.

In addition, we have certain trademarks and pending trademark applications that support our moissanite branding strategy, and we use certain brand names for which we do not currently have proprietary rights. The success of our growth strategy depends on our continued ability to use our existing brand names in order to increase consumer awareness and further develop strong brands around our moissanite jewel and finished jewelry collections. We cannot assure that any future trademark or other registrations will be issued for pending or future applications or that we will be able to obtain licenses or other contractual rights to use brand names that may infringe the proprietary rights of third parties. We also cannot assure that any registered or unregistered trademarks or other intellectual property or contractual rights will be enforceable or provide adequate protection of our proprietary rights. Our inability to secure proprietary protection with respect to our brands could have a material adverse effect on our business, results of operations, and financial condition.

We also cannot be certain that our products and brand names do not or will not infringe valid patents, trademarks, and other intellectual property rights held by third parties. We may be subject to legal proceedings and claims from time to time relating to the intellectual property of others in the ordinary course of our business. Litigation to determine the validity of any third party's claims could result in significant expense and divert the efforts of our technical and management personnel, whether or not such litigation is determined in our favor. In the event of an adverse result of any such litigation, we could be required to expend significant resources to develop non-infringing technology or to obtain licenses for, and pay royalties on the use of, the technology subject to the litigation. We have no assurance that we would be successful in such development or that any such license would be available on commercially reasonable terms.

***A failure of our information technology (IT) infrastructure or a failure to protect confidential information of our customers and our network against security breaches could adversely impact our business and operations.*** We rely upon the capacity, reliability, and security of our information technology infrastructure and our ability to expand and continually update this infrastructure in response to the changing needs of our business. For example, we are implementing new jewelry-specific enterprise resource planning software and other IT systems in our business. As we implement the new systems, they may not perform as expected. We also face the challenge of supporting our older systems and implementing necessary upgrades. If we experience a problem with the functioning of an important IT system or a security breach of our IT systems, the resulting disruptions could have an adverse effect on our business.

In addition, we and certain of our third-party vendors receive and store personal information in connection with our sales operations and other aspects of our business. In connection with our e-commerce and home party businesses,

we rely on encryption and authentication technology licensed from third parties to effect secure transmission of confidential information, including credit card numbers. Despite our implementation of security measures, our IT systems and e-commerce and home party businesses are vulnerable to damages from computer viruses, natural disasters, unauthorized access, cyber attack, and other similar disruptions. An increasing number of websites and Internet companies have reported breaches of their security. Any such compromise of our security could damage our reputation, business, and brand and expose us to a risk of loss or litigation and possible liability, which could substantially harm our business and results of operations. In addition, anyone who is able to circumvent our security measures could misappropriate proprietary information or cause interruptions in our operations, damage our computers or those of our customers, or otherwise damage our reputation and business. These issues are likely to become more difficult as we expand the number of countries in which our e-commerce website operates. We may need to expend significant resources to protect against security breaches or to address problems caused by breaches.

***Governmental regulation and oversight might adversely impact our operations.*** We are subject to governmental regulations in the manufacture and sale of moissanite jewels and finished jewelry. In particular, the FTC has the power to restrict the offer and sale of products that could deceive or have the tendency or effect of misleading or deceiving purchasers or prospective purchasers with regard to their type, kind, quality, character, origin, or other characteristics. In addition, the precious metal in our finished jewelry may be subject to requirements, which vary by country and by state, such as hallmarking and alloy content. We may be under close scrutiny both by governmental agencies and by competitors in the gemstone industry, any of which may challenge our promotion and marketing of our moissanite jewel and finished jewelry products. If our production or marketing of moissanite jewels and/or finished jewelry featuring moissanite is challenged by governmental agencies or competitors, or if regulations are issued that restrict our ability to market our products, our business, operating results, and financial condition could be materially adversely affected.

***Some anti-takeover provisions of our charter documents and agreements may delay or prevent a takeover of our company.*** A number of provisions of our articles of incorporation and bylaws impact matters of corporate governance and the rights of shareholders. Certain of these provisions have an anti-takeover effect and may delay or prevent takeover attempts not first approved by our Board of Directors (including takeovers that certain shareholders may deem to be in their best interests). These provisions also could delay or frustrate the removal of incumbent directors or the assumption of control by shareholders. We believe that these provisions are appropriate to protect our interests and the interests of all of our shareholders.

Under the terms of the Cree Exclusive Supply Agreement, we are prohibited from entering into an exclusive marketing or distribution agreement with DeBeers or its affiliates or any party whose primary business is the development, manufacture, marketing, or sale of diamond gemstones or any non-gemstone and non-jewelry industry competitor of Cree. The agreement also prohibits us from entering into certain merger, acquisition, sale of assets, or similar transactions with a prohibited party. These provisions of the agreement could limit the price that third parties might be willing to pay in the future for some or all of the shares of our common stock. In addition, this agreement could prevent us from entering into certain potentially profitable transactions with such prohibited parties.

***If we fail to evaluate, implement, and integrate strategic acquisition or disposition opportunities successfully, our business may suffer.*** From time to time we evaluate strategic opportunities available to us for product, technology, or business acquisitions or dispositions. If we choose to make acquisitions or dispositions, we face certain risks, such as failure of an acquired business to meet our performance expectations, diversion of management attention, retention of existing customers of our current and acquired business, and difficulty in integrating or separating a business's operations, personnel, and financial and operating systems. We may not be able to successfully address these risks or any other problems that arise from future acquisitions or dispositions. Any failure to successfully evaluate strategic opportunities and address risks or other problems that arise related to any acquisition or disposition could adversely affect our business, results of operations, and financial condition.

#### **Item 1B. Unresolved Staff Comments**

Not applicable.

#### **Item 2. Properties**

We lease approximately 16,500 square feet of mixed-use space (general office, light manufacturing, and laboratory) in the Research Triangle Park area of North Carolina from an unaffiliated third party that is used by both of our



operating and reporting segments. This lease expires in January 2017. This space houses the majority of all U.S. personnel, including our executive offices, sales offices, administrative personnel, and production facilities.

**Item 3. Legal Proceedings**

Other than as set forth below, there are no material pending legal proceedings to which we are a party or to which any of our property is subject.

On July 26, 2011, we learned that BetterThanDiamond.com requested that the U.S. Patent and Trademark Office, or USPTO, conduct an ex parte re-examination of our U.S. Patent No. 5,723,391, or the '391 Patent, for manufacturing SiC gemstones based on claims of prior art. On October 5, 2011, the USPTO granted the re-examination request based on its finding that the information provided in the request raises "a substantial new question of patentability." We firmly believe that the '391 Patent is valid and enforceable, and we are committed to vigorously defending the '391 Patent.

**Item 4. Mine Safety Disclosures**

Not applicable.

**PART II**

**Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

**Market for Registrant's Common Equity**

Our common stock is traded on the NASDAQ Global Select Market under the symbol "CTHR." The following table presents, for the periods indicated, the high and low sales prices of our common stock, as reported by the NASDAQ Global Select Market. As of March 23, 2012 there were 275 shareholders of record of our common stock.

	<u>High</u>	<u>Low</u>
<b>Year Ended December 31, 2010:</b>		
First Quarter	\$1.97	\$1.16
Second Quarter	\$3.25	\$1.60
Third Quarter	\$3.00	\$2.05
Fourth Quarter	\$3.06	\$1.81
<b>Year Ended December 31, 2011:</b>		
First Quarter	\$3.99	\$2.54
Second Quarter	\$3.78	\$2.42
Third Quarter	\$2.85	\$2.02
Fourth Quarter	\$2.84	\$1.58

We did not pay any dividends on our common stock during 2011 or 2010. We will regularly review and consider the best policies and practices for our company, including the dividend policy. The payment of future dividends will be dependent on the facts and circumstances at the time of that review.

**Issuer Purchases of Equity Securities**

<u>Period</u>	<u>Total Number of Shares Purchased<sup>(1)</sup></u>	<u>Average Price Paid Per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs<sup>(2)</sup></u>	<u>Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs<sup>(2)</sup></u>
October 1 – October 31, 2011	-	\$ -	-	-
November 1 – November 30, 2011	19,699	\$ 2.52	-	816,713
December 1 – December 31, 2011	7,500	\$ 2.54	7,500	809,213
Total	<u>27,199</u>	<u>\$ 2.53</u>	<u>7,500</u>	

1. This column includes 19,699 shares purchased by our directors in open market transactions that were not made pursuant to our share repurchase program, as follows: George R. Cattermole, 10,000 shares and Ollin B. Sykes, 9,699 shares.
2. On November 13, 2009, our Board of Directors authorized a share repurchase program of up to an aggregate 1 million shares of our common stock in open market or private transactions. The Board authorized an extension of the program in August 2010, and on August 9, 2011, the Board authorized a further extension of the program through August 12, 2012. We have no obligation to repurchase shares under the program, and the program may be suspended or terminated at any time.

#### **Item 6. Selected Financial Data**

Not applicable.

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

The following discussion is intended to provide a better understanding of our consolidated financial statements, including a brief discussion of our business and products, key factors that impacted our performance, and a summary of our operating results. This information should be read in conjunction with Item 1A, "Risk Factors" and our consolidated financial statements and the notes thereto included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. Historical results and percentage relationships among any amounts in the consolidated financial statements are not necessarily indicative of trends in operating results for future periods.

##### **Overview**

We manufacture, market, and distribute Charles & Colvard Created Moissanite<sup>®</sup> jewels (which we refer to as moissanite or moissanite jewels) and finished jewelry featuring moissanite for sale in the worldwide jewelry market. Moissanite, also known by its chemical name of silicon carbide, or SiC, is a rare mineral first discovered in a meteor crater. Because naturally occurring SiC crystals are too small for commercial use, larger crystals must be grown in a laboratory. Leveraging our advantage of being the sole source worldwide of created moissanite jewels, our strategy is to establish Charles & Colvard with reputable, high-quality, and sophisticated brands and to position moissanite as an affordable, luxurious alternative to other gemstones, such as diamond. We believe this is possible due to moissanite's exceptional brilliance, fire, luster, durability, and rarity like no other jewel available on the market.

We sell our loose moissanite jewels at wholesale to some of the largest distributors and manufacturers in the world, which mount them into fine jewelry to be sold at retail outlets and via the Internet. We also sell loose moissanite jewels and finished jewelry at wholesale to retailers to be sold to end consumers and, in the third quarter of 2011, we established a direct-to-consumer e-commerce sales channel through our wholly owned operating subsidiary Moissanite.com, LLC that sells both loose moissanite jewels and finished jewelry. Additionally, in January 2012 we soft-launched a direct-to-consumer home party sales channel through our wholly owned operating subsidiary Charles & Colvard Direct, LLC that sells finished jewelry. We believe the expansion of our sales channels to the jewelry trade and the end consumer with branded finished moissanite jewelry creates a more compelling consumer value proposition to drive increased demand.

We are continuing to focus on our core business of manufacturing and distributing the moissanite loose jewel and finished jewelry featuring moissanite through wholesale sales channels, because this is currently the primary way we reach consumers. We believe there is substantial opportunity to grow our wholesale business and to capture a larger share of the jewelry market as we execute our strategy to increase consumer awareness of moissanite.

The wholesale finished jewelry business that we launched in 2010 is currently expanding through select retailers and television shopping networks, and we believe there is significant opportunity to expand these sales channels. We believe our finished jewelry business, including finished jewelry sold through our direct-to-consumer e-commerce and home party sales channels, allows us to have more control over the end product and enhance our relationships with consumers, as well as provide incremental sales and gross profit dollars due to the higher price points of finished jewelry containing moissanite relative to loose jewels.

During 2011, we focused on executing the following critical aspects of our strategic plan that are continuing into 2012:

- *Developing brand strategies* - Our goal is to build multiple brands around the moissanite jewel and finished jewelry collections in attractive and desirable jewelry designs, especially those featuring larger center stones that leverage moissanite's point of differentiation. We believe branding will allow us to increase consumer awareness, which we expect to help drive sales and develop consumer brand recognition and loyalty. In July 2011, we received a Notice of Allowance from the USPTO that approved our application for the trademark "Forever Brilliant." In January 2012, we entered into an exclusive partnership with Serenity, one of the world's notable laboratories for gemstone enhancements, to create moissanite jewels with optical properties that are significantly whiter than our standard VG grade jewels. We are marketing these enhanced jewels under the *Forever Brilliant*<sup>TM</sup> trademark as a premier brand to differentiate from other grades of our moissanite as well as moissanite sold by potential competitors in the future. Serenity has also developed proprietary technologies for treating moissanite to produce such colors as pink, blue, and yellow, among others, around which we are exploring additional product lines and branding strategies.

In October 2011, we engaged the services of a prominent luxury jewelry brand strategy, positioning, and marketing firm to assist us with formulating a cohesive branding strategy that encompasses *Forever Brilliant*<sup>TM</sup> loose moissanite jewels, finished jewelry brands under leading designers, and our e-commerce and home party lines of business. Our initial efforts have resulted in new corporate and product logos, product packaging, and the planned introduction of branded finished jewelry designed by Judy Evans, a leading jewelry designer. We believe our efforts to position *Forever Brilliant*<sup>TM</sup> as the whitest and brightest moissanite jewel available anywhere in the world, the engagement of a prominent brand-building firm to convey our message, and the introduction of designer finished jewelry brands will help us to build brand recognition and increase consumer awareness of our products. We also expect that this strategy of building brand recognition will help to support revenue streams as our intellectual property rights expire in the future.

- *Launching our direct-to-consumer e-commerce website* - Our new direct-to-consumer e-commerce website, [www.moissanite.com](http://www.moissanite.com), went live to the public on August 23, 2011. The site is built on the robust and scalable *Magento* e-commerce software platform, which powers websites for many of the world's leading brands. Our focus in the latter part of 2011 was to improve site functionality by developing a more intuitive shopping experience through user interface, one-page shopping cart, single sign-on, and enhanced images; and the addition of new features to the site, such as cross-sale and up-sale functionality, social media connectivity, and the acceptance of international orders. In 2012, we are continuing to add functionality such as custom packaging, gift messages and gift wrapping, user reviews and ratings, and designer sections. We are also expanding the site's jewelry assortment through an exclusive agreement with one of the top jewelry manufacturers in the U.S., which will provide fulfillment of quality moissanite finished jewelry for our site only. As we improve the functionality and assortment on the site, we also plan to invest resources in marketing campaigns designed to increase traffic and sales conversion ratios. We believe our direct-to-consumer e-commerce sales channel will not only add to our top-line revenues in a significant manner, but will also play a key role in our campaign to increase overall consumer awareness of moissanite. We also envision e-commerce as a part of a broader effort to establish online connections with consumers that build our brands and our business with retail partners.
- *Launching our direct-to-consumer home party business* - In the second quarter of 2011, we began developing a direct-to-consumer home party sales model and invested considerable time and resources in creating jewelry lines, brands, and associated collateral materials. The outcome of this effort is *Lulu Avenue*, a home party brand with over 200 quality jewelry products blending fashion and fine moissanite jewelry, a multi-page catalog, and various collateral materials that we began testing in August 2011 with home parties in six states. The sales and consumer response, including interest by party attendees in joining the business as independent sales representatives, throughout our test phase exceeded our projections and goals and, as a result, our Board of Directors approved a nationwide soft launch that occurred in January 2012. We have added key personnel to help launch *Lulu Avenue*, including a General Manager with substantial experience in the development and execution of home party businesses; a Vice President of National Sales with over 20 years in the business and a track record of success with a number of home party ventures; and a Director of Marketing whose previous experience includes several of the notable jewelry direct sales companies. In the first quarter of 2012, we are finalizing our systems, inventory, packaging, and marketing collateral and thereafter plan to increase our sales and recruitment efforts. We believe our direct-to-consumer home party sales channel will provide significant future sales growth and play a key role in our campaign to increase overall consumer awareness of moissanite.

As we execute our strategy to build and reinvest in the business, expenses and investment of cash will be required ahead of the revenue streams we expect in the future, and this may result in some unprofitable quarters as we experienced during the first half of 2011. However, one of our primary goals is to maintain positive cash flow each quarter to protect our cash position, and we were successful in generating \$3.45 million in cash flow from operations during the year ended December 31, 2011. We will continue to diligently focus on cost containment and monitor our cash burn rate as we grow the business.

As a result of our ongoing efforts to execute our strategies, our total net sales for the year ended December 31, 2011 were 26% greater than total net sales during the year ended December 31, 2010, with loose jewel sales and finished jewelry sales improving 19% and 57% period to period, respectively. We began to see a return on the investment in our growth strategies in the fourth quarter of 2011, during which our total net sales increased 105% over the corresponding period of 2010 and we recorded net income of \$1.80 million. There can be no assurance that future results for each reporting period will exceed past results in sales, operating cash flow, and/or net income due to the challenging business environment in which we operate, our changing business model, and our investment in various initiatives to support our growth strategies. However, we remain committed to our current priorities of generating positive cash flow and strengthening our financial position through cost-reduction initiatives and selling down our inventory while we execute and refine our strategy and messaging initiatives. We believe the results of these efforts will propel us to new heights of revenue growth and profitability and further enhance shareholder value in coming years, but we fully recognize the business and economic challenges in which we operate.

### 2011 Summary

The following is a summary of key financial results and certain non-financial results achieved for the year ended December 31, 2011:

- We grew our total net sales by \$3.35 million, or 26%, to \$16.03 million in 2011 from \$12.69 million in 2010. The improvement in 2011 sales was primarily due to the ongoing execution of our strategy to grow sales through our existing customer relationships, the addition of several new domestic and international customers during the year, the expansion of our wholesale finished jewelry business, and the continuing improvement in the overall retail environment.
- Operating expenses increased by \$1.60 million, or 24%, to \$8.22 million in 2011 primarily as a result of personnel additions and advertising and marketing initiatives incurred to position our company for future growth, especially with respect to our two operating subsidiaries formed in 2011 for our e-commerce and home party direct sales businesses. As we grow our business, we intend to continue to closely manage our operating expenses by seeking the most cost effective and efficient solutions to our operating requirements.
- Net income was \$1.57 million in 2011 compared to \$1.56 million in 2010, as sales increases in 2011 were offset by higher operating expenses as we invest in our strategic initiatives. Our earnings per share was \$0.08 in each of the years ended December 31, 2011 and 2010.
- We generated positive cash flows from operations of \$3.45 million in 2011 compared to \$1.48 million in 2010.
- Cash and liquid long-term investments at December 31, 2011 were \$10.46 million compared to \$8.75 million at December 31, 2010. The primary reasons for this increase are a \$3.45 million cash flow from operations comprised of net income of \$1.57 million that included \$1.58 million of net non-cash expenses, the receipt of an income tax receivable of \$113,000, a net decrease in inventory of \$2.65 million, and an increase in trade accounts payable of \$519,000 that more than offset a net increase in trade accounts receivable of \$2.85 million, an increase in prepaid expenses and other assets of \$88,000, and a net decrease in accrued expenses and other liabilities of \$24,000.
- Total inventory, including long-term and consignment inventory, was \$35.01 million as of December 31, 2011, down from approximately \$37.38 million at the end of 2010. This decrease is primarily a result of sales, offset in part by purchases in 2011 of jewelry castings, findings, and other jewelry components; fashion finished jewelry in support of our *Lulu Avenue* home party direct sales business; and limited production of moissanite jewels. We believe we have a significant opportunity to build our cash position as we sell down our on-hand moissanite loose jewel inventory.

- We continue to carry no long-term debt and believe we can fund our growth strategies for the foreseeable future from operating cash flows.
- We hired key personnel in 2011 to help drive our future growth initiatives, including a Vice President, E-Commerce & Marketing to lead our direct-to-consumer e-commerce business and a General Manager to lead our home party business.

### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which we prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses and related disclosures of contingent assets and liabilities. "Critical accounting policies and estimates" are defined as those most important to the financial statement presentation and that require the most difficult, subjective, or complex judgments. We base our estimates on historical experience and on various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Under different assumptions and/or conditions, actual results of operations may materially differ. The most significant estimates impacting our consolidated financial statements relate to valuation and classification of inventories, accounts receivable reserves, deferred tax assets, uncertain tax positions, cooperative advertising, and revenue recognition on transactions with extended payment terms. We also have other policies that we consider key accounting policies, but these policies typically do not require us to make estimates or judgments that are difficult or subjective.

*Inventories* - Inventories are stated at the lower of cost or market on an average cost basis. Our finished goods inventory consists primarily of near-colorless moissanite jewels that meet rigorous grading criteria and are of cuts and sizes most commonly used in the jewelry industry. As of December 31, 2011, we carried only a limited amount of moissanite jewels in finished jewelry settings, and the carrying value of these jewels is included in the finished jewelry valuation described below. Our moissanite jewel inventories do not degrade in quality over time and are not subject to fashion trends. We have very small market penetration in the worldwide jewelry market and have the exclusive right through 2015 to produce and sell created SiC for use in jewelry applications. In view of the foregoing factors, we have concluded that no excess or obsolete loose jewel inventory reserve requirements existed as of December 31, 2011.

Jewelry inventories consist primarily of finished goods, a portion of which we acquired as part of a January 2009 settlement agreement with a former manufacturer customer to reduce the outstanding receivable to us. Due to the lack of a plan to market this inventory at that time, a jewelry inventory reserve was established to reduce the majority of the jewelry inventory value to scrap value, or the amount we would expect to obtain by melting the gold in the jewelry and returning to loose-jewel finished goods inventory those jewels that meet grading standards. To determine the amount of the jewelry reserve, we needed to estimate the amount of gold in each piece of jewelry, the price per ounce we would receive for the gold, and the amount of jewels that could be returned to finished goods inventory. This scrap reserve has declined as the associated jewelry is sold down, and the balance was \$173,000 and \$496,000 at December 31, 2011 and 2010, respectively. In 2010, we entered the finished jewelry business and began manufacturing jewelry containing our moissanite jewels. This inventory is not subject to this reserve, though we review the finished jewelry inventory on an ongoing basis for any lower of cost or market and obsolescence issues and have concluded that no such finished jewelry inventory reserve requirements relating to our new line of finished jewelry products existed as of December 31, 2011.

Any inventory in excess of our current requirements based on historical and anticipated levels of sales is classified as long-term on our consolidated balance sheets. Our classification of long-term inventory requires us to estimate the portion of inventory that can be realized over the next 12 months.

*Accounts Receivable Reserves* - Estimates are used to determine the amount of two reserves against trade accounts receivable. The first reserve is an allowance for sales returns. At the time revenue is recognized, we estimate future returns using a historical return rate that is reviewed quarterly with consideration of any contractual return privileges granted to customers, and we reduce sales and trade accounts receivable by this estimated amount. The allowance for sales returns was \$156,000 and \$117,000 at December 31, 2011 and 2010, respectively.

The second reserve is an allowance for doubtful accounts for estimated losses resulting from the failure of our customers to make required payments. This allowance reduces trade accounts receivable to an amount expected to be collected. Based on historical percentages of uncollectible accounts by aging category, changes in payment history, and facts and circumstances regarding specific accounts that become known to management when evaluating the adequacy of the allowance for doubtful accounts, we determine a percentage based on the age of the receivable that we deem uncollectible. The allowance is then calculated by applying the appropriate percentage to each of our accounts receivable aging categories, with consideration given to individual customer account activity subsequent to the current period, including cash receipts, in determining the appropriate allowance for doubtful accounts in the current period. Any increases or decreases to this allowance are charged or credited, respectively, as a bad debt expense to general and administrative expenses. We generally use an internal collection effort, which may include our sales personnel as we deem appropriate. After all internal collection efforts have been exhausted, we generally write off the account receivable.

Any accounts with significant balances are reviewed separately to determine an appropriate allowance based on the facts and circumstances of the specific account. During our review for 2010, we specifically reviewed and recorded an allowance for the balance owed to us by an international customer for which we had initiated collection efforts and nearly fully reserved the outstanding accounts receivable balance. During our review for 2011, we determined that collection efforts for this international customer had been exhausted and wrote off the associated account receivable. In addition, in 2011 we reviewed several of our slower-paying customers and determined that no additional reserves were necessary. The total allowance for doubtful accounts was \$380,000 and \$866,000 at December 31, 2011 and 2010, respectively.

*Deferred Tax Assets* - U.S. GAAP guidance requires that all deferred tax assets of the company be assessed to determine if a valuation allowance is required. A valuation allowance is required if it is determined that it is more likely than not, or greater than a 50% probability, that some portion or all of the deferred tax assets will not be realized. The guidance states further that "forming a conclusion that a valuation allowance is not needed is difficult when there is negative evidence such as cumulative losses in recent years." Based on our tax losses during the 2009, 2010, and 2011 tax years, and the lack of verifiable positive evidence of sufficient future taxable income to fully use our net operating loss carryforward and other deferred tax assets, we established valuation allowances against all U.S. deferred tax assets of \$4.43 million and \$5.00 million as of December 31, 2011 and 2010, respectively. This assessment will continue to be addressed in future periods.

Our deferred tax assets in Hong Kong were fully reserved with a valuation allowance of \$996,000 and \$1.06 million as of December 31, 2011 and 2010, respectively, and had been fully reserved in all prior periods due to the uncertainty of future taxable income in this jurisdiction to utilize the deferred tax assets. Our Hong Kong subsidiary ceased operations during 2008 and became a dormant entity during 2009. If we use any portion of our deferred tax assets in future periods, the valuation allowance would need to be reversed and may impact our future operating results.

*Uncertain Tax Positions* - Effective January 1, 2007, we adopted U.S. GAAP guidance regarding the de-recognition, classification, accounting in interim periods, and disclosure requirements for uncertain tax positions. Determining which tax positions qualify as uncertain positions and the subsequent accounting for these positions requires significant estimates and assumptions. Our net accrued income tax liability under the provisions of this guidance was \$742,000 and \$937,000 at December 31, 2011 and 2010, respectively. This liability is only resolved when we obtain an official ruling from the tax authority on the positions or when the statute of limitations expires. We resolved an outstanding uncertain position with one tax authority during 2011 that reduced our liability and created a net tax benefit of \$252,000.

*Cooperative Advertising* - We offer a cooperative advertising program to many of our customers that reimburses, via a credit towards future purchases, a portion of their marketing costs based on their net purchases from us. At the end of any given period, we estimate the amount of cooperative advertising expense that has not yet been submitted for credit by our customers. These amounts were \$213,000 and \$314,000 at December 31, 2011 and 2010, respectively. We estimate this amount based on our historical experience with each customer and the related contractual arrangements to provide certain levels of cooperative advertising for our customers. Any differences in actual amounts to our estimates will result in a charge or credit to sales and marketing expenses.



**Revenue Recognition** - Revenue is recognized when title transfers at the time of shipment from our facility, excluding consignment shipments as discussed below; evidence of an arrangement exists; pricing is fixed and determinable; and collectability is reasonably assured. Our standard customer payment terms are generally between 30 and 90 days, though we may offer extended terms from time to time. Some customers are required to prepay prior to shipment. At the time revenue is recognized, an allowance for estimated returns is established. Any change in the allowance for returns is charged against net sales. Our return policy allows for the return of jewels and finished jewelry for credit generally within 30 days of shipment and must be returned for a valid reason, such as quality problems or an error in shipment. From time to time, some customers may have a contractual right to return a certain percentage of goods for any reason for specified periods of time. In these instances, we only recognize revenue when the contractual right of return is exhausted. Periodically, we ship finished goods inventory to customers on consignment terms. Under these terms, the customer assumes the risk of loss and has an absolute right of return for a specified period. Our customers are generally required to make payments on consignment shipments within 60 days upon the customer informing us that it will keep the inventory. Accordingly, we do not recognize revenue on these consignment transactions until the earlier of (1) the customer informing us that it will keep the inventory or (2) the expiration of the right of return period.

**Recent Accounting Pronouncements** - See Note 2 to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K for a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements.

## Results of Operations

The following table sets forth certain consolidated statements of operations data for the years ended December 31, 2011 and 2010.

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
Net sales	\$ 16,033,408	\$ 12,686,771
Costs and expenses:		
Cost of goods sold	6,510,452	4,825,921
Sales and marketing	3,312,383	1,992,842
General and administrative	4,671,111	4,526,335
Research and development	145,720	99,888
Loss on abandonment of assets	94,408	-
Total costs and expenses	<u>14,734,074</u>	<u>11,444,986</u>
Income from operations	1,299,334	1,241,785
Other income (expense):		
Interest income	85,271	109,183
Interest expense	(1,141)	(2,831)
Gain (loss) on call of long-term investments	721	(25,528)
Total other income	<u>84,851</u>	<u>80,824</u>
Income before income taxes	1,384,185	1,322,609
Income tax net benefit	183,947	234,275
Net income	<u>\$ 1,568,132</u>	<u>\$ 1,556,884</u>

## Net Sales

Net sales for the years ended December 31, 2011 and 2010 comprise the following:

	<b>Year Ended December 31,</b>		<b>Change</b>	
	<b>2011</b>	<b>2010</b>	<b>Dollars</b>	<b>Percent</b>
Loose jewels	\$ 12,065,414	\$ 10,162,163	\$ 1,903,251	19%
Finished jewelry	3,967,994	2,524,608	1,443,386	57%
Total net sales	<u>\$ 16,033,408</u>	<u>\$ 12,686,771</u>	<u>\$ 3,346,637</u>	<u>26%</u>

Net sales were \$16.03 million for the year ended December 31, 2011 compared to \$12.69 million for the year ended December 31, 2010, an increase of \$3.35 million, or 26%. During 2011, carat sales of loose moissanite jewels and moissanite jewels mounted in finished jewelry increased 38% to approximately 123,000 carats from approximately 89,000 carats in 2010. The improvement in 2011 sales was primarily due to the ongoing execution of our growth strategies including initiatives to increase consumer awareness of moissanite through marketing support of our wholesale customer base; expansion of existing customer relationships; addition of new domestic and international customers; and increased sales of finished jewelry featuring moissanite. We anticipate orders and related sales will continue to improve as we continue to execute these strategies.

Sales of loose jewels represented 75% and 80% of total net sales for the years ended December 31, 2011 and 2010, respectively. For the year ended December 31, 2011, loose jewel sales were \$12.07 million compared to \$10.16 million for the year ended December 31, 2010, an increase of \$1.90 million, or 19%. This increase was primarily attributable to orders from new wholesale customers and the timing of restocking orders from existing wholesale customers. In 2011, the average selling price per carat for our sales of loose jewels decreased 8% from 2010 primarily resulting from the sale of varying grades of loose jewels, some of which have lower wholesale selling prices, and special pricing that we extended during 2011 to support customers expanding their moissanite businesses.

Sales of finished jewelry represented 25% and 20% of total net sales for the years ended December 31, 2011 and 2010, respectively. For the year ended December 31, 2011, finished jewelry sales were \$3.97 million compared to \$2.52 million for the year ended December 31, 2010, an increase of \$1.44 million, or 57%. This increase was primarily attributable to our continued focus on expansion into the finished jewelry business that we began in 2010 through the creation of new sales channels, including television shopping networks that are experiencing high levels of success with basic and designer-inspired fashion lines of finished moissanite jewelry. In 2011, we experienced a higher degree of seasonality in the fourth quarter than we have previously experienced primarily as a result of Christmas and holiday season finished jewelry sales to television shopping networks. In future periods as sales of our finished jewelry increase to retailers and directly to consumers, both in dollars and as a percent of total sales, we anticipate a seasonality trend more typical with the retail jewelry industry, and these factors may significantly affect our sales in a given quarter.

U.S. net sales accounted for approximately 67% and 66% of total net sales during the years ended December 31, 2011 and 2010, respectively. U.S. net sales and carat shipments, which do not include shipments of consigned inventory, increased by 28% and 55%, respectively, for the year ended December 31, 2011 as compared to the year ended December 31, 2010. U.S. sales increased during 2011 primarily due to the growth of our wholesale finished jewelry business with television shopping networks, which increased from approximately 11% of U.S. sales in 2010 to approximately 30% of U.S. sales in 2011.

Our three largest U.S. customers during the year ended December 31, 2011 accounted for 15%, 12%, and 11%, respectively, of our total sales compared to 4%, 18% and 0%, respectively, during the year ended December 31, 2010. A fourth U.S. customer accounted for 15% of our total sales during the year ended December 31, 2010 but did not account for more than 10% of our total sales during the year ended December 31, 2011. No additional U.S. customers accounted for more than 10% of total sales in 2011 or 2010. We expect that we will remain dependent on our ability, and that of our largest customers, to maintain and enhance retail programs. A change in or loss of any of these customer or retailer relationships could have a material adverse effect on our results of operations.

International net sales accounted for approximately 33% and 34% of total net sales during the years ended December 31, 2011 and 2010, respectively. International net sales and carat shipments, which do not include shipments of consigned inventory, increased by 23% and 15%, respectively, for the year ended December 31, 2011 as compared to the year ended December 31, 2010. International sales increased during 2011 primarily due to the growth of sales in aggregate among our existing wholesale customer base; the acquisition of new customers in Kazakhstan, India, and China; and the continuing improvement in the overall retail environment. No international customers accounted for more than 10% of total sales in 2011 or 2010. A portion of our international sales represents jewels sold internationally that may be re-imported to U.S. retailers. Our top three international distributors by sales volume during the year ended December 31, 2011 were located in India and Hong Kong.

## Costs and Expenses

### Cost of Goods Sold

Cost of goods sold for the years ended December 31, 2011 and 2010 are as follows:

	Year Ended December 31,		Change	
	2011	2010	Dollars	Percent
Segment cost of goods sold				
Loose jewels	\$ 3,809,579	\$ 3,680,550	\$ 129,029	4%
Finished jewelry	2,193,997	1,933,888	260,109	13%
Total segment cost of goods sold	6,003,576	5,614,438	389,138	7%
Non-segment cost of goods sold	506,876	(788,517)	1,295,393	164%
Total cost of goods sold	<u>\$ 6,510,452</u>	<u>\$ 4,825,921</u>	<u>\$ 1,684,531</u>	<u>35%</u>

Total cost of goods sold was \$6.51 million for the year ended December 31, 2011 compared to \$4.83 million for the year ended December 31, 2010, an increase of \$1.68 million, or 35%. Segment cost of goods sold is defined as product cost of goods sold excluding non-capitalized expenses from our manufacturing and production control departments. Such expenses are included in non-segment cost of goods sold and comprise personnel costs, depreciation, rent, utilities, and corporate overhead allocations; freight out; manufacturing and physical inventory variances; inventory valuation allowance adjustments; and costs of quality issues and damaged goods.

The increase in cost of goods sold was primarily due to a \$129,000 increase in loose jewels segment cost of goods sold and a \$260,000 increase in finished jewelry segment cost of goods sold collectively resulting from the 26% increase in total net sales for the year ended December 31, 2011; and a net increase in non-segment cost of goods sold of \$1.30 million, comprising a \$34,000 increase in freight out; a \$952,000 net increase in inventory valuation adjustments, including inventory shrinkage, recuts, repairs, and scrap reserves; a \$295,000 net increase in non-capitalized manufacturing and overhead expenses primarily due to staffing increases and investments in improved processing capabilities; and a \$15,000 increase in inventory write-offs due to quality issues and damaged goods. This increase was offset in part by improved margins on loose jewels from a larger mix of multiple grades with lower average costs and improved margins on finished jewelry.

### Sales and Marketing

Sales and marketing expenses for the years ended December 31, 2011 and 2010 are as follows:

	Year Ended December 31,		Change	
	2011	2010	Dollars	Percent
Sales and marketing	\$ 3,312,383	\$ 1,992,842	\$ 1,319,541	66%

Sales and marketing expenses were \$3.31 million for the year ended December 31, 2011 compared to \$1.99 million for the year ended December 31, 2010, an increase of \$1.32 million, or 66%.

The increase in sales and marketing expenses was primarily due to an \$824,000 net increase in compensation costs, a \$232,000 increase in travel-related expenses resulting from new sales personnel and expanding business opportunities, a \$138,000 increase in consulting professional services for marketing and branding initiatives and the development of our home party direct sales channel, a \$110,000 increase in office expenses to support a larger sales and marketing organization, and a \$60,000 increase in depreciation expense related to the www.moissanite.com e-commerce website. These increases were offset in part by a net decrease in advertising expenses of \$45,000, comprising a \$251,000 decrease in cooperative advertising expenses resulting from fewer wholesale customers eligible to participate in this program and management's estimate of utilization of the accrued expense, offset in part by a \$206,000 increase in marketing, designer program development, and samples provided to prospective customers. Because the cooperative advertising program is currently offered only to loose-jewel wholesale customers, we expect this expense as a percent of total sales will continue to decline as our finished jewelry sales to wholesale customers increase. Compensation costs increased primarily as a result of merit salary adjustments and new sales and marketing personnel added during the year of \$332,000, an increase in stock-based compensation expense of \$191,000, an increase in commissions of \$167,000, an increase in bonus expense of \$64,000, an increase

in employee relocation costs of \$48,000, an increase in employee benefits of \$29,000, and an increase in severance pay of \$14,000, offset in part by lower allocations to other departments of \$21,000.

#### *General and Administrative*

General and administrative expenses for the years ended December 31, 2011 and 2010 are as follows:

	<u>Year Ended December 31,</u>		<u>Change</u>	
	<u>2011</u>	<u>2010</u>	<u>Dollars</u>	<u>Percent</u>
General and administrative	\$ 4,671,111	\$ 4,526,335	\$ 144,776	3%

General and administrative expenses were \$4.67 million for the year ended December 31, 2011 compared to \$4.53 million for the year ended December 31, 2010, an increase of \$145,000, or 3%.

The increase in general and administrative expenses was primarily due to a \$388,000 net increase in compensation costs, a \$116,000 increase in investor and public relations professional services, a \$92,000 increase in depreciation and amortization expense due to the acceleration of depreciation for our enterprise resource planning software scheduled for replacement, a \$41,000 increase in legal professional services, a \$38,000 increase in audit and tax professional services due to the timing of work performed and a special project related to uncertain tax positions, a \$23,000 increase in insurance expenses primarily due to a one-time benefit recognized in the prior year, a \$23,000 increase in office expenses to support a growing organization, a \$17,000 increase in travel-related expenses associated with investor, customer, and supplier meetings, and a \$15,000 increase in Board member compensation due to the addition of a Board seat. These increases were offset in part by a \$344,000 decrease in bad debt expense associated with our allowance for doubtful accounts reserve policy, a \$208,000 decrease in consulting professional services due to the expiration of certain management and accounting consulting agreements, a \$34,000 decrease in rent expense due to our renegotiated corporate headquarters lease and non-renewal of a corporate apartment lease, a \$17,000 decrease in recruiting costs, and a \$4,000 decrease in business franchise and property taxes. Compensation costs increased primarily as a result of an increase in stock-based compensation expense of \$344,000, merit salary adjustments and additional general and administrative personnel costs of \$39,000, an increase in bonus expense of \$35,000, and an increase in employee benefits of \$24,000, offset in part by lower allocations from other departments of \$44,000 and a decrease in employee relocation costs of \$10,000.

#### *Research and Development*

Research and development expenses for the years ended December 31, 2011 and 2010 are as follows:

	<u>Year Ended December 31,</u>		<u>Change</u>	
	<u>2011</u>	<u>2010</u>	<u>Dollars</u>	<u>Percent</u>
Research and development	\$ 145,720	\$ 99,888	\$ 45,832	46%

Research and development expenses were \$146,000 for the year ended December 31, 2011 compared to \$100,000 for the year ended December 31, 2010, an increase of \$46,000, or 46%.

The increase in research and development expenses was primarily due to a \$65,000 increase in compensation costs resulting from a lower allocation to general and administrative expenses, offset in part by a \$13,000 decrease in consulting professional services due to the expiration of a research consulting agreement that terminated in December 2010 and a \$6,000 decrease in non-inventoried supplies.

#### **Loss on Abandonment of Assets**

Loss on abandonment of assets for the years ended December 31, 2011 and 2010 is as follows:

	<u>Year Ended December 31,</u>		<u>Change</u>	
	<u>2011</u>	<u>2010</u>	<u>Dollars</u>	<u>Percent</u>
Loss on abandonment of assets	\$ 94,408	\$ -	\$ 94,408	-

In 2011, we identified jewelry-specific manufacturing software that we believe will improve our merchandising, production, and inventory efficiencies and reporting. Because our management decided to purchase and implement

this software, prior capitalized but not yet placed in service manufacturing software modifications of approximately \$94,000 to our then-current enterprise resource planning system were abandoned and recorded as a loss on abandonment of assets during the year ended December 31, 2011.

### Interest Income

Interest income for the years ended December 31, 2011 and 2010 is as follows:

	Year Ended December 31,		Change	
	2011	2010	Dollars	Percent
Interest income	\$ 85,271	\$ 109,183	\$ (23,912)	-22%

Interest income was \$85,000 for the year ended December 31, 2011 compared to \$109,000 for the year ended December 31, 2010, a decrease of \$24,000, or 22%.

The decrease in interest income resulted primarily from holding more cash in lower-yielding savings accounts and certificates of deposit and reinvesting in U.S. government agency securities in 2011 that had lower yields than those earned on U.S. government agency securities held during 2010. The lower yields earned on these investments more than offset the higher cash and investment balances of \$10.46 million held at December 31, 2011 as compared to the balances of \$8.75 million held at December 31, 2010.

### Provision for Income Taxes

We recognized an income tax net benefit of approximately \$184,000 and \$234,000 for the years ended December 31, 2011 and 2010, respectively.

During 2008, we recorded a full valuation allowance against certain deferred tax assets consisting primarily of net operating loss carryforwards. Due to continued uncertainty over sufficient future taxable income to fully utilize these deferred tax assets, we did not record an income tax expense for the pretax income incurred during the years ended December 31, 2011 and 2010, nor did we reduce the valuation allowance against these deferred tax assets. While utilization of the full net operating losses is uncertain, we anticipate a portion of our net operating losses will be utilized against taxable income for the current year. The result of this utilization eliminates our taxable income for the year ended December 31, 2011 with the exception of an alternative minimum tax in the amount of \$12,000. Until such time that the uncertainty for utilization of the remaining net operating losses is overcome, we do not expect to recognize income tax expense or benefit for operating income or loss, respectively.

During the year ended December 31, 2011, we also entered into a voluntary disclosure agreement with a taxing authority for which we had previously recorded a liability for an uncertain tax position. As a result of the agreement, we reduced our total recorded liabilities relating to uncertain tax positions by approximately \$252,000 and recognized a corresponding income tax benefit. This benefit was offset by approximately \$57,000 of income tax expense for estimated tax, penalties, and interest for other uncertain tax positions.

During the year ended December 31, 2010, we recognized income tax benefits of approximately \$113,000 associated with federal tax refunds and approximately \$21,000 from the elimination of a deferred tax asset and associated uncertain tax position resulting from the carryback of operating losses to the 2004 and 2005 tax years. We also recognized approximately \$143,000 of additional income tax benefit, consisting of a \$102,000 reduction of a deferred tax asset valuation allowance to offset liabilities associated with an uncertain tax position and a \$41,000 reduction of the liability for the same uncertain tax position. These benefits were offset by approximately \$43,000 of income tax expense for estimated tax, penalties, and interest for other uncertain tax positions.

Our statutory tax rate is 37.3% and consists of the federal income tax rate of 34% and a blended state income tax rate of 3.3%, net of the federal benefit.

### Liquidity and Capital Resources

We require cash to fund our operating expenses and working capital requirements, including outlays for capital expenditures. As of December 31, 2011, our principal sources of liquidity were cash and cash equivalents totaling \$6.70 million, trade accounts receivable of \$6.06 million, and short-term inventory of \$6.85 million, as compared to

cash and cash equivalents totaling \$7.74 million, trade accounts receivable of \$3.68 million, and short-term inventory of \$6.31 million as of December 31, 2010. We had \$1.02 million of highly liquid U.S. government agency securities at December 31, 2010 that we classified as held-to-maturity long-term assets on our consolidated balance sheets due to our positive intention and ability to hold these securities until their maturity dates. During the year ended December 31, 2011, we purchased an additional \$7.00 million of highly liquid U.S. government agency securities at par or at a discount that we also classified as held-to-maturity long-term assets on our consolidated balance sheets. During the year ended December 31, 2011, U.S. government agency securities totaling \$4.25 million were called by issuers prior to their maturity dates, resulting in a net held-to-maturity investments balance at December 31, 2011 of \$3.76 million.

During the year ended December 31, 2011, our working capital increased by approximately \$1.17 million to \$18.19 million from \$17.02 million at December 31, 2010. As described more fully below, the increase in working capital at December 31, 2011 is primarily attributable to an increase in trade accounts receivable, a greater allocation of inventory to short-term, and an increase in prepaid expenses and other assets, offset in part by a decrease in cash and cash equivalents resulting from purchases of long-term U.S. government agency securities, an increase in trade accounts payable, and a net increase in accrued expenses and other liabilities.

During the year ended December 31, 2011, \$3.45 million of cash was provided by operations. The primary drivers of positive cash flow were our net income of \$1.57 million that included \$1.58 million of net non-cash expenses, the receipt of an income tax receivable of \$113,000, a net decrease in inventory of \$2.65 million, and an increase in trade accounts payable of \$519,000. These factors more than offset a net increase in trade accounts receivable of \$2.85 million, an increase in prepaid expenses and other assets of \$88,000, and a net decrease in accrued expenses and other liabilities of \$24,000. Inventories decreased primarily due to sales in excess of production of loose jewels and finished jewelry, as we are currently limiting production of loose jewels and have continued to sell down finished jewelry produced in prior years in addition to new jewelry styles produced in the current year. Accounts payable increased primarily as a result of the timing of costs incurred but not yet paid as of December 31, 2011 associated with the purchase of finished jewelry labor and components. Accounts receivable increased primarily due to higher sales in the fourth quarter of 2011 and extended customer payment terms that we offer from time to time that may not immediately increase liquidity as a result of current-period sales. We believe our competitors and other vendors in the jewelry industry have also expanded their use of extended payment terms and, in aggregate, we believe that by expanding our use of extended payment terms, we have provided a competitive response in our market and that our net sales have been favorably impacted. We are unable to estimate the impact of this program on our net sales, but if we ceased providing extended payment terms in select instances, we believe we would not be competitive for some customers in the marketplace and that our net sales and profits would likely decrease. We have not experienced any significant accounts receivable write-offs related to revenue arrangements with extended payment terms.

We manufactured approximately \$2.17 million in finished jewelry, including the cost of the loose jewels and the purchase of precious metals and labor in connection with jewelry production, during the year ended December 31, 2011. We expect our purchases of precious metals and labor to increase as we increase our finished jewelry business. In addition, from the beginning of 2006 through 2011, the price of gold has increased significantly (approximately 189%), resulting in higher retail price points for gold jewelry. Because the market price of gold and other precious metals is beyond our control, the recent upward price trends could continue and have a negative impact on our operating cash flow as we manufacture finished jewelry.

Historically, our raw material inventories of SiC crystals had been purchased under exclusive supply agreements with a limited number of suppliers. Because the supply agreements restricted the sale of these crystals exclusively to us, the suppliers negotiated minimum purchase commitments with us that, when combined with our reduced sales, have resulted in levels of inventories that are higher than we might otherwise maintain. We did not make any purchases of raw material SiC crystals inventory during the year ended December 31, 2011. As of December 31, 2011, \$28.16 million of our inventories were classified as long-term assets. Finished jewelry that we manufacture will utilize the finished good loose jewels currently on hand and, as we deplete certain shapes and sizes, our on-hand raw material SiC crystals of \$6.05 million are expected to meet our replenishment needs. As a result, we do not anticipate the need to purchase raw material SiC crystals until our strategic initiatives gain significant traction.

In connection with the Cree Exclusive Supply Agreement, which expires in July 2015, we have committed to purchase from Cree a minimum of 50%, by dollar volume, of our raw material SiC crystal requirements. If our orders require Cree to expand beyond specified production levels, we must commit to purchase certain minimum



quantities. As of December 31, 2011, we had no outstanding purchase commitments under the Cree Exclusive Supply Agreement.

We received payment in February 2011 of a \$113,000 income tax receivable. Despite current year operating income, we did not make any income tax payments during the year ended December 31, 2011 due to our net operating loss carryforwards. As of December 31, 2011, we had approximately \$1.01 million of remaining federal income tax credits, \$666,000 of which expire between 2012 and 2021 and the balance without an expiration, which can be carried forward to offset future income taxes. As of December 31, 2011, we also had a federal tax net operating loss carryforward of approximately \$6.21 million expiring between 2020 and 2030, which can be used to offset against future federal taxable income, a North Carolina tax net operating loss carryforward of approximately \$11.90 million expiring between 2015 and 2025, and various other state tax net operating loss carryforwards expiring between 2024 and 2030, which can be used to offset against future state taxable income.

In November 2009, our Board of Directors authorized a repurchase program for up to 1,000,000 shares of our common stock. The Board authorized an extension of the program in August 2010, and on August 9, 2011, the Board authorized a further extension of the program through August 12, 2012. Repurchases can be made in the open market or in privately negotiated transactions. We expect to use available cash to finance these purchases and will determine the timing and amount of stock repurchases based on our evaluation of market conditions, the market price of our common stock, and management's assessment of our liquidity and cash flow needs. During the year ended December 31, 2011, we repurchased 149,117 shares. As of March 23, 2012, we have repurchased an aggregate of 190,787 shares, and there remain 809,213 shares of our common stock approved for repurchase under the repurchase program.

We believe that our existing cash and cash equivalents and other working capital, together with future cash expected to be provided by operating activities, will be sufficient to meet our working capital and capital expenditure needs over the next 12 months. Our future capital requirements and the adequacy of available funds will depend on many factors, including our rate of sales growth, the expansion of our sales and marketing activities, the timing and extent of precious metals and labor purchases in connection with jewelry production to support our finished jewelry business, the timing of capital expenditures, and risk factors described in more detail in "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K. Also, we may make investments in, or acquisitions of, complementary businesses, which could also require us to seek additional equity or debt financing.

#### **Off-Balance Sheet Arrangements**

We do not use off-balance sheet arrangements with unconsolidated entities or related parties, nor do we use other forms of off-balance sheet arrangements. Accordingly, our liquidity and capital resources are not subject to off-balance sheet risks from unconsolidated entities. As of December 31, 2011, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

We have entered into an operating lease for approximately 16,500 square feet of mixed-use space from an unaffiliated third party for our offices and manufacturing facility in the normal course of business. This type of arrangement is often referred to as a form of off-balance-sheet financing.

#### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

Not applicable.

**Item 8. Financial Statements and Supplementary Data**

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## **Report of Independent Registered Public Accounting Firm**

Board of Directors and Shareholders  
Charles & Colvard, Ltd.  
Morrisville, North Carolina

We have audited the accompanying consolidated balance sheets of Charles & Colvard, Ltd. as of December 31, 2011 and 2010 and the related consolidated statements of operations, shareholders' equity and comprehensive income, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, 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 Charles & Colvard, Ltd. at December 31, 2011 and 2010, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ BDO USA, LLP  
Raleigh, North Carolina

March 29, 2012

**CHARLES & COLVARD, LTD.**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2011	2010
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 6,701,701	\$ 7,736,044
Accounts receivable, net	6,064,764	3,679,141
Interest receivable	12,109	6,163
Income tax receivable	-	113,030
Inventory, net	6,849,592	6,306,875
Prepaid expenses and other assets	419,729	343,137
Total current assets	20,047,895	18,184,390
Long-term assets:		
Held-to-maturity investments	3,760,399	1,018,551
Inventory, net	28,157,497	31,075,626
Property and equipment, net	1,420,971	377,352
Intangible assets, net	248,812	252,542
Other assets	13,746	1,990
Total long-term assets	33,601,425	32,726,061
<b>TOTAL ASSETS</b>	<b>\$ 53,649,320</b>	<b>\$ 50,910,451</b>
 <b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 1,060,937	\$ 542,084
Accrued cooperative advertising	213,000	314,000
Accrued expenses and other liabilities	581,009	308,653
Total current liabilities	1,854,946	1,164,737
Long-term liabilities:		
Accrued income taxes	741,645	937,414
Total liabilities	2,596,591	2,102,151
Commitments and contingencies		
Shareholders' equity:		
Common stock, no par value; 50,000,000 shares authorized; 19,454,689 and 19,291,568 shares issued and outstanding at December 31, 2011 and 2010, respectively	52,833,716	53,113,608
Additional paid-in capital – stock-based compensation	7,767,877	6,811,688
Accumulated deficit	(9,548,864)	(11,116,996)
Total shareholders' equity	51,052,729	48,808,300
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>\$ 53,649,320</b>	<b>\$ 50,910,451</b>

See Notes to Consolidated Financial Statements.

**CHARLES & COLVARD, LTD.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
Net sales	\$ 16,033,408	\$ 12,686,771
Costs and expenses:		
Cost of goods sold	6,510,452	4,825,921
Sales and marketing	3,312,383	1,992,842
General and administrative	4,671,111	4,526,335
Research and development	145,720	99,888
Loss on abandonment of assets	94,408	-
Total costs and expenses	14,734,074	11,444,986
Income from operations	1,299,334	1,241,785
Other income (expense):		
Interest income	85,271	109,183
Interest expense	(1,141)	(2,831)
Gain (loss) on call of long-term investments	721	(25,528)
Total other income	84,851	80,824
Income before income taxes	1,384,185	1,322,609
Income tax net benefit	183,947	234,275
Net income	\$ 1,568,132	\$ 1,556,884
Net income per common share:		
Basic	\$ 0.08	\$ 0.08
Fully diluted	\$ 0.08	\$ 0.08
Weighted average number of shares used in computing net income per common share:		
Basic	19,443,288	19,177,816
Fully diluted	19,703,204	19,424,540

See Notes to Consolidated Financial Statements.

**CHARLES & COLVARD, LTD.**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**  
**AND COMPREHENSIVE INCOME**

	Common Stock		Additional Paid-in Capital – Stock-Based Compensation	Accumulated Deficit	Total Shareholders' Equity	Total Comprehensive Income
	Number of Shares	Amount				
Balance at December 31, 2009	19,013,749	\$ 52,906,459	\$ 6,411,727	\$ (12,673,880)	\$ 46,644,306	
Stock-based compensation	-	-	415,284	-	415,284	
Issuance of restricted stock	108,512	-	-	-	-	
Stock option exercises	169,307	207,149	(15,323)	-	191,826	
Net income	-	-	-	1,556,884	1,556,884	\$ 1,556,884
Total comprehensive income						\$ 1,556,884
Balance at December 31, 2010	19,291,568	\$ 53,113,608	\$ 6,811,688	\$ (11,116,996)	\$ 48,808,300	
Stock-based compensation	-	-	983,504	-	983,504	
Issuance of restricted stock	278,866	-	-	-	-	
Stock option exercises	33,372	74,549	(27,315)	-	47,234	
Share repurchases	(149,117)	(354,441)	-	-	(354,441)	
Net income	-	-	-	1,568,132	1,568,132	\$ 1,568,132
Total comprehensive income						\$ 1,568,132
Balance at December 31, 2011	19,454,689	\$ 52,833,716	\$ 7,767,877	\$ (9,548,864)	\$ 51,052,729	

See Notes to Consolidated Financial Statements.

**CHARLES & COLVARD, LTD.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 1,568,132	\$ 1,556,884
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	299,550	136,622
Amortization of bond premium	4,498	12,911
Stock-based compensation	983,504	415,284
Provision for uncollectible accounts	430,261	776,000
Provision for sales returns	39,000	(28,000)
Provision for inventory reserves	(274,000)	(1,353,000)
Loss on abandonment of assets	94,408	-
(Gain) loss on call of long-term investments	(721)	25,528
Changes in assets and liabilities:		
Accounts receivable	(2,854,884)	(3,383,845)
Interest receivable	(5,946)	(6,098)
Income tax receivable	113,030	(113,030)
Note receivable	-	54,627
Inventory	2,649,412	3,096,416
Prepaid expenses and other assets, net	(88,348)	(154,325)
Accounts payable	518,853	276,645
Accrued cooperative advertising	(101,000)	141,000
Accrued income taxes	(195,769)	(121,245)
Other accrued liabilities	272,356	150,699
Net cash provided by operating activities	3,452,336	1,483,073
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property and equipment	(1,385,132)	(246,647)
Purchases of long-term investments	(6,995,625)	(5,056,990)
Proceeds from call of long-term investments	4,250,000	4,000,000
Patent, license rights, and trademark costs	(48,715)	(40,903)
Net cash used in investing activities	(4,179,472)	(1,344,540)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Stock option exercises	47,234	191,826
Share repurchases	(354,441)	-
Net cash (used in) provided by financing activities	(307,207)	191,826
<b>NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(1,034,343)</b>	<b>330,359</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD</b>	<b>7,736,044</b>	<b>7,405,685</b>
<b>CASH AND CASH EQUIVALENTS, END OF PERIOD</b>	<b>\$ 6,701,701</b>	<b>\$ 7,736,044</b>
<b>Supplemental disclosure of cash flow information:</b>		
Cash paid during the year for interest	\$ 1,141	\$ 2,831

See Notes to Consolidated Financial Statements.



**CHARLES & COLVARD, LTD.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. DESCRIPTION OF BUSINESS**

Charles & Colvard, Ltd. (the “Company”), a North Carolina corporation founded in 1995, manufactures, markets, and distributes Charles & Colvard Created Moissanite<sup>®</sup> jewels (hereinafter referred to as moissanite or moissanite jewels) and finished jewelry featuring moissanite for sale in the worldwide jewelry market. Moissanite, also known by its chemical name of silicon carbide (“SiC”), is a rare mineral first discovered in a meteor crater. Because naturally occurring SiC crystals are too small for commercial use, larger crystals must be grown in a laboratory. Leveraging its advantage of being the sole source worldwide of created moissanite jewels, the Company’s strategy is to establish itself with reputable, high-quality, and sophisticated brands and to position moissanite as an affordable, luxurious alternative to other gemstones, such as diamond. The Company believes this is possible due to moissanite’s exceptional brilliance, fire, luster, durability, and rarity like no other jewel available on the market. The Company sells loose moissanite jewels and finished jewelry at wholesale to distributors, manufacturers, and retailers and at retail to end consumers through its wholly owned operating subsidiaries Moissanite.com, LLC and Charles & Colvard Direct, LLC.

**2. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES**

***Basis of Presentation and Principles of Consolidation*** - The accompanying consolidated financial statements as of and for the years ended December 31, 2011 and 2010 include the accounts of the Company and its wholly owned subsidiaries Moissanite.com, LLC, formed in 2011; Charles & Colvard Direct, LLC, formed in 2011; and Charles & Colvard (HK) Ltd., the Company’s Hong Kong subsidiary that became a dormant entity in the second quarter of 2009 and the operations of which ceased in 2008. All intercompany accounts have been eliminated.

***Fiscal Year*** - The Company’s fiscal year ends December 31. References to fiscal 2011, for example, refer to the fiscal year ending December 31, 2011.

***Use of Estimates*** - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. The most significant estimates impacting the Company’s consolidated financial statements relate to valuation and classification of inventories, accounts receivable reserves, deferred tax assets, uncertain tax positions, stock compensation expense, and cooperative advertising. Actual results could differ materially from those estimates.

***Reclassifications*** - Certain amounts in the prior year’s consolidated financial statements have been reclassified to conform to the current year presentation.

***Cash and Cash Equivalents*** - All highly liquid investments with an original maturity of three months or less from the date of purchase are considered to be cash equivalents.

***Concentration of Credit Risk*** - Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, investments, and trade accounts receivable. The Company maintains cash, cash equivalents, and investments with high-quality financial institutions and invests in low-risk securities, primarily money market funds or long-term United States (“U.S.”) government agency obligations. At times, cash balances may exceed the Federal Deposit Insurance Corporation (“FDIC”) insurable limits. The Company has never experienced any losses related to these balances. All of the Company’s non-interest bearing cash balances were fully insured at December 31, 2011 due to a temporary federal program in effect from December 31, 2010 through December 31, 2012. Under the program, there is no limit to the amount of insurance for eligible accounts. Beginning in 2013, insurance coverage will revert to \$250,000 per depositor at each financial institution, and the Company’s non-interest bearing cash balances may again exceed federally insured limits. Interest-bearing amounts on deposit in excess of FDIC insurable limits at December 31, 2011 approximated \$5.12 million.

Trade receivables potentially subject the Company to credit risk. The Company’s standard customer payment terms on trade receivables are generally between 30 and 90 days, though it may offer extended terms in limited circumstances and on significant orders from time to time. The Company believes its competitors and other vendors

in the jewelry industry have also expanded their use of extended payment terms and, in aggregate, the Company believes that by expanding its use of extended payment terms, it has provided a competitive response in its market and that its net sales have been favorably impacted. The Company is unable to estimate the impact of this program on its net sales, but if it ceased providing extended payment terms in select instances, the Company believes it would not be competitive for some customers in the marketplace and that its net sales and profits would likely decrease. The Company extends credit to its customers based upon a number of factors, including an evaluation of the customer's financial condition and credit history, the customer's payment history with the Company, the customer's reputation in the trade, and/or an evaluation of the Company's opportunity to introduce its moissanite jewels or finished jewelry featuring moissanite to new or expanded markets. Collateral is not generally required from customers. The need for an allowance for doubtful accounts is determined based upon factors surrounding the credit risk of specific customers, historical trends, and other information. The Company has not experienced any significant accounts receivable write-offs related to revenue arrangements with extended payment terms.

See Note 12, "Major Customers and Concentration of Credit Risk," for further discussion of credit risk within trade accounts receivable.

**Accounts Receivable Reserves** - Estimates are used to determine the amount of two reserves against trade accounts receivable. The first reserve is an allowance for sales returns. At the time revenue is recognized, the Company estimates future returns using a historical return rate that is reviewed quarterly with consideration of any contractual return privileges granted to customers, and it reduces sales and trade accounts receivable by this estimated amount. The allowance for sales returns was \$156,000 and \$117,000 at December 31, 2011 and 2010, respectively.

The second reserve is an allowance for doubtful accounts for estimated losses resulting from the failure of the Company's customers to make required payments. This allowance reduces trade accounts receivable to an amount expected to be collected. Based on historical percentages of uncollectible accounts by aging category, changes in payment history, and facts and circumstances regarding specific accounts that become known to management when evaluating the adequacy of the allowance for doubtful accounts, the Company determines a percentage based on the age of the receivable that it deems uncollectible. The allowance is then calculated by applying the appropriate percentage to each of the Company's accounts receivable aging categories, with consideration given to individual customer account activity subsequent to the current period, including cash receipts, in determining the appropriate allowance for doubtful accounts in the current period. Any increases or decreases to this allowance are charged or credited, respectively, as a bad debt expense to general and administrative expenses. The Company generally uses an internal collection effort, which may include its sales personnel as it deems appropriate. After all internal collection efforts have been exhausted, the Company generally writes off the account receivable.

Any accounts with significant balances are reviewed separately to determine an appropriate allowance based on the facts and circumstances of the specific account. During its review for 2010, the Company specifically reviewed and recorded an allowance for the balance owed to it by an international customer for which the Company had initiated collection efforts and nearly fully reserved the outstanding accounts receivable balance. During its review for 2011, the Company determined that collection efforts for this international customer had been exhausted and wrote off the associated account receivable. In addition, in 2011 the Company reviewed several of its slower-paying customers and determined that no additional reserves were necessary. Based on these criteria, management determined that allowances for doubtful accounts receivable of \$380,000 and \$866,000 at December 31, 2011 and 2010, respectively, were required.

The following is a reconciliation of the allowance for doubtful accounts:

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
Balance, beginning of period	\$ 866,000	\$ 90,000
Additions charged to operations	430,261	776,000
Write-offs	(916,261)	-
Balance, end of period	<u>\$ 380,000</u>	<u>\$ 866,000</u>

Although the Company believes that its reserves are adequate, if the financial condition of its customers deteriorates, resulting in an impairment of their ability to make payments, or if it underestimates the allowances required, additional allowances may be necessary, which would result in increased expense in the period in which such determination is made.

**Investments** - Investments in certain securities may be classified into three categories:

- *Held-to-maturity* - Debt securities that the Company has the positive intent and ability to hold to maturity are reported at amortized cost.
- *Trading securities* - Debt and equity securities that are bought and held principally for the purpose of selling in the near term are reported at fair value with unrealized gains and losses included in earnings.
- *Available-for-sale* - Debt and equity securities not classified as either securities held-to-maturity or trading securities are reported at fair value with unrealized gains or losses excluded from earnings and reported as a separate component of shareholders' equity.

The Company reassesses the appropriateness of the classification of its investments at the end of each reporting period. The Company has determined that its debt securities should be classified as held-to-maturity as of December 31, 2011. This classification was based upon management's determination that it has the positive intention and ability to hold the securities to maturity, as the underlying cash invested in these securities is not required for current operations.

**Inventories** - Inventories are stated at the lower of cost or market on an average cost basis. Inventory costs include direct material and labor, inbound freight, purchasing and receiving costs, inspection costs, and warehousing costs. Any inventory on hand at the measurement date in excess of the Company's current requirements based on historical and anticipated levels of sales is classified as long-term on the Company's consolidated balance sheets. The Company's classification of long-term inventory requires it to estimate the portion of on-hand inventory that can be realized over the next 12 months and does not include precious metal, labor, and other inventory purchases expected to be both purchased and realized over the next 12 months.

The Company has historically sold one grade of jewel that is classified as very good ("VG") and consists of near-colorless jewels that meet certain standards. Previously, only VG jewels were valued in inventory. During the first quarter of 2010, the Company began a project of sorting its jewels into multiple grades and has identified several customers for the sale of lower grades of loose jewels and finished jewelry containing these jewels. As a result, various costs associated with this inventory incurred subsequent to the identification of this market are now being capitalized.

All inventories are carefully reviewed for quality standards before they are entered into finished goods. As conditions warrant, the Company's grading standards change. The Company reviews the inventory on an ongoing basis to ensure its inventory meets current quality standards.

Obsolescence is not a factor in the Company's loose jewel inventory valuation. The Company's jewels do not degrade over time and inventory generally consists of the shapes and sizes most commonly used in the jewelry industry. In addition, the majority of jewel inventory is not mounted in finished jewelry settings and is therefore not subject to fashion trends. The Company has very small market penetration in the worldwide jewelry market, and the Company has the exclusive right in the U.S. through mid-2015 and in many other countries through mid-2016 to produce and sell created SiC for use in jewelry applications. In view of the foregoing factors, management has concluded that no excess or obsolete loose jewel inventory reserve requirements existed as of December 31, 2011.

In 2010, the Company began manufacturing finished jewelry featuring moissanite. Finished jewelry is more fashion oriented and subject to styling trends that could render certain designs obsolete. The majority of the Company's finished jewelry is held in inventory for resale and consists of such basic designs as stud earrings, solitaire and three-stone rings, pendants, and bracelets that tend not to be subject to significant obsolescence risk due to their classic styling. In addition, the Company manufactures small individual quantities of designer-inspired fashion jewelry as part of its sample line that are used in the selling process to its wholesale customers. Typically in the jewelry industry, slow-moving or discontinued lines are sold as closeouts in alternative sales channels. The Company reviews the finished jewelry inventory on an ongoing basis for any lower of cost or market and obsolescence issues and has concluded that no such finished jewelry inventory reserve requirements relating to the Company's new line of finished jewelry products existed as of December 31, 2011.

Jewelry inventories consist primarily of finished goods, a portion of which the Company acquired as part of a January 2009 settlement agreement with a former manufacturer customer to reduce the outstanding receivable to the

Company. Due to the lack of a plan to market this inventory at that time, a jewelry inventory reserve was established to reduce the majority of the jewelry inventory value to scrap value, or the amount the Company would expect to obtain by melting the gold in the jewelry and returning to loose-jewel finished goods inventory those jewels that meet grading standards. Because the finished jewelry the Company began manufacturing in 2010 after it entered that business was made pursuant to an operational plan to market and sell the inventory, it is not subject to this reserve.

The Company also maintains inventory reserves for shrinkage, recuts, and repairs. Shrinkage refers to jewels and finished jewelry on review with customers and vendors that may not be returned to the Company. The recuts reserve is for the projected material loss resulting from the recutting of damaged jewels into smaller loose jewels to remove the damage. The repairs reserve is for finished jewelry in need of repair before it can be returned to finished goods inventory and be available for sale.

The need for adjustments to inventory reserves is evaluated on a period-by-period basis.

**Property and Equipment** - Property and equipment are stated at cost and are depreciated over their estimated useful lives using the straight-line method as follows:

Machinery and equipment	5 to 12 years
Computer hardware	3 to 5 years
Computer software	3 years
Furniture and fixtures	5 to 10 years
Leasehold improvements	Shorter of the estimated useful life or the lease term

**Intangible Assets** - The Company capitalizes costs associated with obtaining or defending patents issued or pending for inventions and license rights related to the manufacture of moissanite jewels. Such costs are amortized over the life of the patent, generally 17 years. The Company also capitalizes licenses it obtains for the use of certain advertising images and external costs incurred for trademarks. Such costs are amortized over the period of the license or estimated useful life of the trademark, respectively.

**Impairment of Long-Lived Assets** - The Company evaluates the recoverability of its long-lived assets by reviewing them for possible impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of assets to be held and used is measured by comparing the carrying amount of the asset to future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment is measured as the amount by which the carrying amount exceeds the fair value and is recognized as an operating expense in the period in which the determination is made. Assets to be disposed are reported at the lower of the carrying amount or fair value less costs to sell. As of December 31, 2011, the Company did not identify any indicators of long-lived asset impairment.

In addition to the recoverability assessment, the Company routinely reviews the remaining estimated useful lives of its long-lived assets. Any reduction in the useful-life assumption will result in increased depreciation and amortization expense in the period when such determination is made, as well as in subsequent periods. In July 2011, the Company identified jewelry-specific manufacturing software that it believes will improve its merchandising, production, and inventory efficiencies and reporting. Because the Company's management decided to purchase and implement this software with a go-live date in January 2012, management reduced the remaining estimated useful life of the Company's existing enterprise resource planning system, which resulted in increased depreciation expense during the year ended December 31, 2011 of \$59,000. As of December 31, 2010, no change in useful lives was deemed necessary by management.

**Revenue Recognition** - Revenue is recognized when title transfers at the time of shipment from the Company's facility, excluding consignment shipments as discussed below; evidence of an arrangement exists; pricing is fixed and determinable; and collectability is reasonably assured. At the time revenue is recognized, an allowance for estimated returns is established. Any change in the allowance for returns is charged against net sales. The Company's return policy allows for the return of jewels and finished jewelry for credit generally within 30 days of shipment and must be returned for a valid reason, such as quality problems or an error in shipment. From time to time, some customers may have a contractual right to return a certain percentage of goods for any reason for specified periods of time. In these instances, the Company only recognizes revenue when the contractual right of return is exhausted. Periodically, the Company ships finished goods inventory to customers on consignment terms. Under these terms, the customer assumes the risk of loss and has an absolute right of return for a specified period.

The Company's customers are generally required to make payments on consignment shipments within 60 days upon the customer informing the Company that it will keep the inventory. Accordingly, the Company does not recognize revenue on these consignment transactions until the earlier of (1) the customer informing the Company that it will keep the inventory or (2) the expiration of the right of return period.

**Cost of Goods Sold** - Cost of goods sold is primarily composed of inventory sold during the period; inventory written off during the period due to ongoing quality reviews or through customer returns; salaries and benefits for personnel involved in preparing and shipping product to customers; an allocation of shared expenses such as rent, utilities, communication expenses, and depreciation related to preparing and shipping product to customers; and outbound freight charges.

**Advertising Costs** - Advertising production costs are expensed as incurred. Media placement costs are expensed the first time the advertising appears.

The Company also offers a cooperative advertising program to certain of its customers that reimburses, via a credit towards future purchases, a portion of their marketing costs based on the customers' net purchases from the Company and is subject to the customer providing documentation of all advertising performed that includes the Company's products. For the years ended December 31, 2011 and 2010, these amounts were approximately \$436,000 and \$687,000, respectively, and are included as a component of sales and marketing expenses.

Advertising expenses, inclusive of the cooperative advertising program, for the years ended December 31, 2011 and 2010 were approximately \$712,000 and \$757,000, respectively.

**Sales and Marketing** - Sales and marketing costs are expensed as incurred. These costs include all expenses of promoting and selling the Company's products and include such items as the salaries, payroll-related expenses, and travel of sales and marketing personnel; advertising; trade shows; market research; sales commissions; and an allocation of overhead expenses attributable to these activities. Except for an allocation to general and administrative expenses, these costs also include the operating expenses of the Company's two wholly owned operating subsidiaries Moissanite.com, LLC and Charles & Colvard Direct, LLC.

**General and Administrative** - General and administrative costs are expensed as incurred. These costs include the salaries and payroll-related expenses of executive, finance, information technology, and administrative personnel; legal, investor relations, and professional fees; Board of Directors fees; rent; bad debts; and insurance.

**Research and Development** - Research and development costs are expensed as incurred. These costs primarily comprise salary allocations and consultant fees associated with the study of product enhancement and manufacturing process efficiencies.

**Stock-Based Compensation** - The Company recognizes compensation expense for stock-based awards based on estimated fair values on the date of grant. The Company uses the Black-Scholes-Merton option pricing model to determine the fair value of stock options. The fair value of other stock-based compensation awards is determined by the market price of the Company's common stock on the date of grant. The expense associated with stock-based compensation is recognized on a straight-line basis over the requisite service period of each award.

Fair value of stock options using the Black-Scholes-Merton option pricing model is estimated on the date of grant utilizing certain assumptions for dividend yield, expected volatility, risk-free interest rate, and expected lives of the awards, as follows:

- *Dividend yield* - Although the Company issued dividends in prior years, a dividend yield of zero is used due to the uncertainty of future dividend payments.
- *Expected volatility* - Volatility is a measure of the amount by which a financial variable such as share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company estimates expected volatility giving primary consideration to the historical volatility of its common stock.
- *Risk-free interest rate* - The risk-free interest rate is based on the published yield available on U.S. Treasury issues with an equivalent term remaining equal to the expected life of the stock option.

- **Expected lives** - The expected lives of the stock options represent the estimated period of time until exercise or forfeiture and are based on historical experience of similar awards.

The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management's judgment. As a result, if factors change and the Company uses different assumptions, the Company's stock-based compensation expense could be materially different in the future. In addition, the Company is required to estimate the expected forfeiture rate and only recognize expense for those shares expected to vest. In estimating the Company's forfeiture rate, the Company analyzed its historical forfeiture rate, the remaining lives of unvested stock options, and the amount of vested stock options as a percentage of total stock options outstanding. If the Company's actual forfeiture rate is materially different from its estimate, or if the Company re-evaluates the forfeiture rate in the future, the stock-based compensation expense could be significantly different from what the Company has recorded in the current period.

**Income Taxes** - Deferred income taxes are recognized for the income tax consequences of "temporary" differences by applying enacted statutory income tax rates applicable to future years to differences between the financial statement carrying amounts and the income tax bases of existing assets and liabilities. Valuation allowances are established when necessary to reduce deferred income tax assets to the amount that is more likely than not to be realized.

**Net Income per Common Share** - Basic net income per common share is computed by dividing net income by the weighted average number of common shares outstanding during the periods. Fully diluted net income per common share is computed using the weighted average number of common and dilutive common equivalent shares outstanding during the periods. Common equivalent shares consist of stock options that are computed using the treasury stock method.

The following table reconciles the differences between the basic and fully diluted earnings per share presentations:

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
<b>Numerator:</b>		
Net income	\$ 1,568,132	\$ 1,556,884
<b>Denominator:</b>		
Weighted average common shares outstanding:		
Basic	19,443,288	19,177,816
Stock options	259,916	246,724
Fully diluted	19,703,204	19,424,540
<b>Net income per common share:</b>		
Basic	\$ 0.08	\$ 0.08
Fully diluted	\$ 0.08	\$ 0.08

For the years ended December 31, 2011 and 2010, stock options to purchase approximately 713,000 and 307,000 shares, respectively, were excluded from the computation of fully diluted net income per common share because the exercise price of the stock options was greater than the average market price of the common shares or the effect of inclusion of such amounts would be anti-dilutive to net income per common share.

**Recently Adopted/Issued Accounting Pronouncements - Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs.** In May 2011, the Financial Accounting Standards Board ("FASB") issued new U.S. GAAP guidance to change the wording used to describe many of the requirements in U.S. GAAP for measuring fair value and for disclosing information about fair value measurements to ensure consistency between U.S. GAAP and International Financial Reporting Standards ("IFRS"). This guidance also expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. The new guidance is effective for interim and annual reporting periods ending on or after December 15, 2011. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

*Comprehensive Income (Topic 220): Presentation of Comprehensive Income.* In June 2011, the FASB issued new U.S. GAAP guidance that changes the requirements for the presentation of other comprehensive income, eliminating the option to present components of other comprehensive income as part of the statement of changes in shareholders' equity, among other things. This guidance requires that all non-owner changes in shareholders' equity be presented either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The new guidance is effective for interim periods and annual reporting periods beginning after December 15, 2011 and should be applied retrospectively.

In December 2011, the FASB deferred the effective date of provisions included in this guidance that require entities to present reclassification adjustments out of accumulated other comprehensive income by component in both the statement where net income is presented and the statement where other comprehensive income is presented for both interim and annual financial statements. The revised effective date has not yet been determined. Since the update only requires a change in presentation, the adoption of this guidance is not expected to have a material impact on the Company's consolidated financial statements.

All other new and recently issued, but not yet effective, accounting pronouncements have been deemed to be not relevant to the Company and therefore are not expected to have any impact once adopted.

### 3. SEGMENT INFORMATION AND GEOGRAPHIC DATA

The Company reports segment information based on the "management" approach. The management approach designates the internal reporting used by management for making decisions and assessing performance as the source of the Company's operating and reportable segments.

The Company manages its business primarily by its product lines. Accordingly, the Company determined its two operating and reporting segments to be loose jewels and finished jewelry. The accounting policies of these segments are the same as those described in Note 2, "Basis of Presentation and Significant Accounting Policies."

The Company evaluates the performance of its segments based on net sales and segment gross profit, or the excess of product sales over segment cost of goods sold. Segment cost of goods sold is defined as product cost of goods sold excluding non-capitalized expenses from the Company's manufacturing and production control departments, comprising personnel costs, depreciation, rent, utilities, and corporate overhead allocations; freight out; manufacturing and physical inventory variances; inventory valuation allowance adjustments; and costs of quality issues and damaged goods. Accordingly, also excluded from the Company's segment performance measures are operating expenses, comprising sales and marketing, general and administrative, and research and development expenses; interest; and taxes.

Summary information by segment is as follows:

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
<b>Loose jewels</b>		
Net sales	\$ 12,065,414	\$ 10,162,163
Segment cost of goods sold	3,809,579	3,680,550
Segment gross profit	<u>\$ 8,255,835</u>	<u>\$ 6,481,613</u>
<b>Finished jewelry</b>		
Net sales	\$ 3,967,994	\$ 2,524,608
Segment cost of goods sold	2,193,997	1,933,888
Segment gross profit	<u>\$ 1,773,997</u>	<u>\$ 590,720</u>

A reconciliation of the Company's segment cost of goods sold to cost of goods sold as reported in the consolidated financial statements is as follows:

	<u>Year Ended December 31,</u>	
	<u>2011</u>	<u>2010</u>
Segment cost of goods sold	\$ 6,003,576	\$ 5,614,438
Non-capitalized manufacturing and production control expenses	668,787	373,773
Freight out	80,876	47,199
Inventory variances and valuation adjustments	(276,234)	(1,228,133)
Quality issues and damaged goods	33,447	18,644
Cost of goods sold	<u>\$ 6,510,452</u>	<u>\$ 4,825,921</u>

The Company's net inventories by segment are as follows:

	<u>December 31,</u>	
	<u>2011</u>	<u>2010</u>
Loose jewels		
Raw materials	\$ 6,047,047	\$ 6,700,628
Work-in-process	2,505,219	2,132,910
Finished goods	21,722,869	25,384,397
Finished goods on consignment	505,753	558,149
Totals	<u>\$ 30,780,888</u>	<u>\$ 34,776,084</u>
Finished jewelry		
Raw materials	\$ 226,972	\$ 292,611
Work-in-process	85,786	69,276
Finished goods	3,292,810	1,483,787
Finished goods on consignment	499,577	635,117
Totals	<u>\$ 4,105,145</u>	<u>\$ 2,480,791</u>

Supplies inventories of approximately \$121,000 and \$126,000 at December 31, 2011 and 2010, respectively, included in finished goods inventories in the consolidated financial statements are omitted from inventories by segment because they are used in both product lines and are not maintained separately.

The Company recognizes sales by geographic area based on the country in which the customer is based. A portion of the Company's international sales represents products sold internationally that may be re-imported to U.S. retailers. The following presents certain data by geographic area:

	<u>Year Ended December 31,</u>	
	<u>2011</u>	<u>2010</u>
Net sales		
United States	\$ 10,665,215	\$ 8,318,634
International	5,368,193	4,368,137
Total	<u>\$ 16,033,408</u>	<u>\$ 12,686,771</u>
	<u>December 31,</u>	
	<u>2011</u>	<u>2010</u>
Property and equipment, net		
United States	\$ 1,420,971	\$ 377,352
International	-	-
Total	<u>\$ 1,420,971</u>	<u>\$ 377,352</u>



	December 31,	
	2011	2010
Intangible assets, net		
United States	\$ 73,701	\$ 80,864
International	175,111	171,678
Total	<u>\$ 248,812</u>	<u>\$ 252,542</u>

#### 4. INVESTMENTS

Investments consist of long-term U.S. government agency securities carried at amortized cost using the effective interest method. The Company classifies its marketable securities as held-to-maturity based upon management's positive intention and ability to hold these securities until their maturity dates.

The following table summarizes information about held-to-maturity investments at December 31, 2011:

	Amortized Cost	Gross Unrealized Gains	Estimated Fair Value
U.S. government agency securities	\$ 3,760,399	\$ 24,801	\$ 3,785,200

As of December 31, 2011, the estimated fair value of the investments was greater than the amortized cost. Because management intends to hold the investments until their maturity dates, this unrealized gain was not recorded in the consolidated financial statements.

The maturities of held-to-maturity investments at December 31, 2011 were as follows:

	After 1 Year through 2 Years	After 2 Years through 3 Years	After 3 Years through 4 Years	After 4 Years through 5 Years	Total
U.S. government agency securities	\$ 510,399	\$ 1,750,000	\$ 750,000	\$ 750,000	\$ 3,760,399

#### 5. FAIR VALUE MEASUREMENTS

Under U.S. GAAP, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. U.S. GAAP also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are obtained from independent sources and can be validated by a third party, whereas unobservable inputs reflect assumptions regarding what a third party would use in pricing an asset or liability. The fair value hierarchy consists of three levels based on the reliability of inputs, as follows:

- *Level 1* - quoted prices in active markets for identical assets and liabilities
- *Level 2* - inputs other than Level 1 quoted prices that are directly or indirectly observable
- *Level 3* - unobservable inputs that are not corroborated by market data

The Company evaluates assets and liabilities subject to fair value measurements on a recurring and non-recurring basis to determine the appropriate level to classify them for each reporting period. This determination requires significant judgments to be made by management of the Company. The instruments identified as subject to fair value measurements on a recurring basis are cash and cash equivalents, trade accounts receivable, held-to-maturity investments, trade accounts payable, and accrued expenses. All instruments other than held-to-maturity investments are reflected in the consolidated balance sheets at carrying value, which approximates fair value due to the short-term nature of these instruments. The estimated fair value of the Company's held-to-maturity investments as of December 31, 2011 utilized Level 2 inputs of similar investments traded on active securities exchanges.

Assets that are measured at fair value on a non-recurring basis include property and equipment and intangible assets, comprising patents, license rights, and trademarks. These items are recognized at fair value when they are

considered to be impaired. Level 3 inputs are primarily based on the estimated future cash flows of the asset determined by market inquiries to establish fair market value of used machinery or future revenue expected to be generated with the assistance of patents, license rights, and trademarks.

## 6. INVENTORIES

The Company's total inventories, net of reserves, consisted of the following as of December 31, 2011 and 2010:

	<b>December 31,</b>	
	<b>2011</b>	<b>2010</b>
Raw materials	\$ 6,274,019	\$ 6,993,239
Work-in-process	2,591,005	2,202,186
Finished goods	25,398,735	27,489,810
Finished goods on consignment	1,016,330	1,193,266
Less inventory reserves	(273,000)	(496,000)
Totals	<u>\$ 35,007,089</u>	<u>\$ 37,382,501</u>
Short-term portion	\$ 6,849,592	\$ 6,306,875
Long-term portion	28,157,497	31,075,626
Totals	<u>\$ 35,007,089</u>	<u>\$ 37,382,501</u>

Periodically, the Company ships finished goods inventory to customers on consignment terms. Under these terms, the customer assumes the risk of loss and has an absolute right of return for a specified period. Finished goods on consignment at December 31, 2011 and 2010 are net of a shrinkage reserve of \$11,000 and \$15,000, respectively, to allow for certain loose jewels and finished jewelry on consignment with customers that may not be returned or may be returned in a condition that does not meet the Company's current grading standards.

Total net loose jewel inventories at December 31, 2011 and 2010, including inventory on consignment net of reserves, were \$30.78 million and \$34.78 million, respectively. The loose jewel inventories at December 31, 2011 include an inventory reserve for shrinkage, or jewels on review with customers and vendors that may not be returned to the Company, of \$14,000. Loose jewel inventories at December 31, 2011 and 2010 also include an inventory reserve for recuts, or the projected material loss resulting from the recutting of damaged jewels into smaller loose jewels to remove the damage, of \$30,000 and \$36,000, respectively.

Total net jewelry inventories at December 31, 2011 and 2010, including inventory on consignment net of reserves and including new jewelry manufactured by the Company since entering the finished jewelry business in 2010, were \$4.11 million and \$2.48 million, respectively. Jewelry inventories consist primarily of finished goods, a portion of which the Company acquired as part of a January 2009 settlement agreement with a former manufacturer customer to reduce the outstanding receivable to the Company. Due to the lack of a plan to market this inventory at that time, a jewelry inventory reserve was established to reduce the majority of the jewelry inventory value to scrap value, or the amount the Company would expect to obtain by melting the gold in the jewelry and returning to loose-jewel finished goods inventory those jewels that meet grading standards. This scrap reserve has declined as the associated jewelry is sold down, with a balance of \$173,000 and \$496,000 at December 31, 2011 and 2010, respectively. The finished jewelry inventories at December 31, 2011 also include an inventory reserve for jewelry in need of repair of \$45,000.

## 7. PROPERTY AND EQUIPMENT

Property and equipment consists of the following:

	<b>December 31,</b>	
	<b>2011</b>	<b>2010</b>
Computer software	\$ 1,026,532	\$ 474,264
Machinery and equipment	688,096	615,706
Leasehold improvements	404,244	130,790
Computer hardware	384,359	497,050
Furniture and fixtures	268,836	218,322
Totals	<u>2,772,067</u>	<u>1,936,132</u>
Less accumulated depreciation	(1,351,096)	(1,558,780)
Property and equipment, net	<u>\$ 1,420,971</u>	<u>\$ 377,352</u>

Depreciation expense for the years ended December 31, 2011 and 2010 was approximately \$247,000 and \$88,000, respectively.

## 8. INTANGIBLE ASSETS

Intangible assets consist of the following:

	<b>December 31,</b>		<b>Weighted Average Amortization Period (in Years)</b>
	<b>2011</b>	<b>2010</b>	
Patents	\$ 630,633	\$ 587,443	4.3
License rights	-	20,200	-
Trademarks	10,525	5,000	2.6
Totals	<u>641,158</u>	<u>612,643</u>	
Less accumulated amortization	(392,346)	(360,101)	
Intangible assets, net	<u>\$ 248,812</u>	<u>\$ 252,542</u>	

Amortization expense for the years ended December 31, 2011 and 2010 was approximately \$52,000 and \$49,000, respectively. Amortization expense on existing intangible assets is estimated to be \$58,000 per year for 2012 through 2014, \$49,000 for 2015, \$20,000 for 2016, and \$6,000 thereafter.

## 9. COMMITMENTS AND CONTINGENCIES

### *Lease Commitments*

In March 2004, the Company entered into a seven-year lease, beginning in August 2004, for approximately 16,500 square feet of mixed-use space from an unaffiliated third party at a base cost with escalations throughout the lease term plus additional common-area expenses based on the Company's proportionate share of the lessor's operating costs. The lease provided for two rent holidays, during which no rent was payable, and a moving allowance. In January 2011, the Company amended the lease effective January 1, 2011 to extend the term through January 2017 in exchange for a reduced rental rate and 50% rent abatement in the first 12 months of the extended term. The amended lease includes 3% annual rent escalations and a one-time option to terminate the lease effective as of July 31, 2014. The Company recognizes rent expense on a straight-line basis, giving consideration to the rent holidays, the moving allowance paid to the Company, and the rent abatement. At the Company's option, the amended lease can be extended for one five-year period.

As of December 31, 2011, the Company's future minimum payments under this operating lease were as follows:

2012	\$	135,249
2013		139,307
2014		143,486
2015		147,791
2016		152,224
Thereafter		13,066
Total	\$	<u>731,123</u>

Rent expense for the years ended December 31, 2011 and 2010 was approximately \$210,000 and \$197,000, respectively.

### ***Purchase Commitments***

On June 6, 1997, the Company entered into an amended and restated exclusive supply agreement with Cree, Inc. ("Cree"). The exclusive supply agreement had an initial term of ten years that was extended in January 2005 to July 2015. In connection with the amended and restated exclusive supply agreement, the Company has committed to purchase from Cree a minimum of 50%, by dollar volume, of its raw material SiC crystal requirements. If the Company's orders require Cree to expand beyond specified production levels, the Company must commit to purchase certain minimum quantities. There exist no outstanding purchase commitments under the amended and restated exclusive supply agreement as of December 31, 2011.

### ***Legal Proceedings***

On July 26, 2011, the Company learned that BetterThanDiamond.com requested that the U.S. Patent and Trademark Office ("USPTO") conduct an ex parte re-examination of the Company's U.S. Patent No. 5,723,391 (the "'391 Patent") for manufacturing silicon carbide gemstones based on claims of prior art. On October 5, 2011, the USPTO granted the re-examination request based on its finding that the information provided in the request raises "a substantial new question of patentability." The Company firmly believes that the '391 Patent is valid and enforceable and is committed to vigorously defending the '391 Patent.

## **10. SHAREHOLDERS' EQUITY AND STOCK-BASED COMPENSATION**

### ***Common Stock***

The Company is authorized to issue 50,000,000 shares of common stock, no par value. As of December 31, 2011 and 2010, it had 19,454,689 and 19,291,568 shares of common stock outstanding, respectively. Holders of common stock are entitled to one vote for each share held.

In November 2009, the Board of Directors authorized a repurchase program for up to 1,000,000 shares of the Company's common stock. The Board authorized an extension of the program in August 2010, and on August 9, 2011, the Board authorized a further extension of the program through August 12, 2012. Repurchases can be made in the open market or in privately negotiated transactions. The Company expects to use available cash to finance these purchases and will determine the timing and amount of stock repurchases based on its evaluation of market conditions, the market price of its common stock, and management's assessment of the Company's liquidity and cash flow needs. During the year ended December 31, 2011, the Company repurchased 149,117 shares. As of March 23, 2012, the Company has repurchased an aggregate of 190,787 shares, and there remained 809,213 shares of the Company's common stock approved for repurchase under the repurchase program. Repurchased shares become authorized but unissued shares of the Company's common stock available for issuance.

### ***Preferred Stock***

The Board of Directors is authorized, without further shareholder approval, to issue up to 10,000,000 shares of preferred stock, no par value. The preferred stock may be issued from time to time in one or more series. No shares of preferred stock had been issued as of December 31, 2011.

### ***Shareholder Rights Plan***

On February 21, 1999, the Company adopted, as a means to guard against abusive takeover tactics, a Shareholder Rights Plan (the “Rights Plan”), as amended by Amendment No. 1 dated as of February 18, 2009, under which all common shareholders of record as of March 8, 1999 received a dividend distribution of one right for each outstanding share of the Company’s common stock to purchase shares of a new series of preferred stock. One right would also be distributed for each share of common stock issued after March 8, 1999 until the distribution date, which would occur upon the earlier of (i) 10 business days following a public announcement that a person or group of affiliated or associated persons had acquired beneficial ownership of 20% or more of the outstanding shares of the Company’s common stock, or (ii) 10 business days following the commencement of a tender offer or exchange offer that would, if consummated, result in a person or group beneficially owning 20% or more of such outstanding shares of the Company’s common stock, subject to certain limitations. The rights would be exercisable only if a person or group acquires or announces a tender offer to acquire 20% or more of the Company’s common stock. If a person or group acquires 20% or more of the Company’s common stock, all shareholders except the purchaser would be entitled to acquire the Company’s common stock at a 50% discount. The rights would trade with the Company’s common stock, unless and until they are separated upon the occurrence of certain future events. On August 15, 2011, the Company and American Stock Transfer & Trust Company, LLC, as rights agent, entered into Amendment No. 2 to the Rights Plan (the “Amendment”) amending the Company’s Rights Plan. The Amendment accelerated the expiration of the preferred share purchase rights issued under the Rights Agreement in connection with the Rights Plan from the close of business on February 22, 2019 to the close of business on August 15, 2011. Accordingly, as of the close of business on August 15, 2011, the rights issued under the Rights Plan expired and are no longer outstanding. The Amendment has the effect of terminating the Rights Plan effective August 15, 2011.

### ***Equity Compensation Plans***

#### ***1996 Stock Option Plan***

In 1996, the Company adopted the 1996 Stock Option Plan of Charles & Colvard, Ltd. (the “1996 Option Plan”), under which stock options to acquire 1,020,402 common shares, reduced by the number of stock options granted outside the 1996 Option Plan, could be granted to key employees, directors, and independent contractors. Under the 1996 Option Plan, both incentive and non-qualified stock options could be granted under terms and conditions established by the Compensation Committee of the Board of Directors. The exercise price for incentive stock options was the fair market value of the related common stock on the date the stock option was granted. Stock options granted under the 1996 Option Plan generally vested equally over a three-year period and had terms of 10 years. As of December 31, 2011 and 2010, there were no outstanding stock options under the 1996 Option Plan, and the Company currently has no plans to award additional stock options under this plan.

#### ***1997 Omnibus Stock Plan***

In 1997, the Company adopted the 1997 Omnibus Stock Plan of Charles & Colvard, Ltd. (the “1997 Omnibus Plan”). The 1997 Omnibus Plan authorized the Company to grant stock options, stock appreciation rights, and restricted stock awards (collectively, “awards”) to selected employees, independent contractors, and directors of the Company and related corporations in order to promote a closer identification of their interests with those of the Company and its shareholders. All stock options granted under the 1997 Omnibus Plan have an exercise price equal to the market price of the Company’s common stock on the date the stock option was granted. Stock options granted to employees under the 1997 Omnibus Plan generally vest over three years and have terms of up to 10 years, with the exception of stock options granted in 2005 under the Executive Compensation Plan (which is governed by and subject to the 1997 Omnibus Plan) that vested immediately and stock options granted in 2006 under the Executive Compensation Plan that vested at the end of three years. Stock options granted to the Board of Directors under the 1997 Omnibus Plan generally vested over one year and have terms of up to 10 years. The terms of stock options granted to independent contractors varied depending on the specific grant, but the terms are no longer than 10 years. Restricted stock awards granted to members of the Board of Directors vested at the end of one year. The 1997 Omnibus Plan expired (with respect to future grants) on September 30, 2007. As of December 31, 2011 and 2010, there were 70,892 and 95,698 stock options outstanding under the 1997 Omnibus Plan, respectively.

## 2008 Stock Incentive Plan

In May 2008, the shareholders of the Company approved the adoption of the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (the "2008 Plan"), which replaced the 1997 Omnibus Plan. The 2008 Plan authorizes the Company to grant stock options, stock appreciation rights, restricted stock, and other equity awards to selected employees, directors, and independent contractors. The aggregate number of shares of the Company's common stock that may be issued pursuant to awards granted under the 2008 Plan shall not exceed the sum of 3,000,000 plus any shares of common stock subject to an award granted under the 1997 Omnibus Plan or any other stock incentive plan maintained by the Company prior to the 2008 Plan (each, a "Prior Plan") that is forfeited, cancelled, terminated, expires, or lapses for any reason without the issuance of shares pursuant to the award, or shares subject to an award granted under a Prior Plan which shares are forfeited to, or repurchased or reacquired by, the Company. Stock options granted to employees under the 2008 Plan generally vest over three years and have terms of up to 10 years. The vesting schedules and terms of stock options granted to independent contractors vary depending on the specific grant, but the terms are no longer than 10 years. Restricted stock awards granted to members of the Board of Directors vest at the end of one year on the date of the Annual Meeting of Shareholders. The vesting schedules of restricted stock awards granted to employees or independent contractors vary depending on the specific grant but are generally three years or less. Only stock options and restricted stock have been granted under the 2008 Plan. As of December 31, 2011 and 2010, there were 1,086,687 and 564,752 stock options outstanding under the 2008 Plan, respectively.

### Stock-Based Compensation

The following table summarizes the components of the Company's stock-based compensation included in net income:

	Year Ended December 31,	
	2011	2010
Employee stock options	\$ 449,747	\$ 121,134
Consultant stock options	85,726	20,214
Restricted stock awards	448,031	273,936
Income tax benefit	(193,519)	(106,647)
Totals	<u>\$ 789,985</u>	<u>\$ 308,637</u>

Due to the Company's valuation allowance against deferred tax assets as discussed further in Note 11, "Income Taxes," some or all of the above income tax benefit was reserved as of December 31, 2011 and 2010. No stock-based compensation was capitalized as a cost of inventory during the years ended December 31, 2011 and 2010.

### Stock Options

The following is a summary of the stock option activity for the years ended December 31, 2011 and 2010:

	Shares	Weighted
		Average
		Exercise Price
Outstanding, December 31, 2009	790,009	\$ 2.88
Granted	222,500	\$ 2.03
Exercised	(169,307)	\$ 1.13
Forfeited	(5,000)	\$ 0.69
Expired	(177,752)	\$ 6.92
Outstanding, December 31, 2010	660,450	\$ 1.97
Granted	568,440	\$ 2.61
Exercised	(33,372)	\$ 1.42
Forfeited	(16,885)	\$ 1.51
Expired	(21,054)	\$ 10.16
Outstanding, December 31, 2011	<u>1,157,579</u>	\$ 2.16

The weighted average grant date fair value of stock options granted during the years ended December 31, 2011 and 2010 was \$1.83 and \$1.44, respectively. The total fair value of stock options that vested during the years ended December 31, 2011 and 2010 was approximately \$420,000 and \$121,000, respectively. The fair value of each stock option is estimated on the date of grant using the Black-Scholes-Merton option pricing model with the following weighted average assumptions for stock options granted during the years ended December 31, 2011 and 2010:

	Year Ended December 31,	
	2011	2010
Dividend yield	0.0%	0.0%
Expected volatility	91.2%	89.7%
Risk-free interest rate	1.40%	1.78%
Expected lives (years)	5.0	5.2

The following table summarizes information about stock options outstanding at December 31, 2011:

Options Outstanding			Options Exercisable			Options Vested or Expected to Vest		
Balance as of 12/31/2011	Weighted Average Contractual Life (Years)	Weighted Average Exercise Price	Balance as of 12/31/2011	Weighted Average Contractual Life (Years)	Weighted Average Exercise Price	Balance as of 12/31/2011	Weighted Average Contractual Life (Years)	Weighted Average Exercise Price
1,157,579	8.49	\$ 2.16	571,924	7.75	\$ 2.08	1,078,610	8.43	\$ 2.15

As of December 31, 2011, the unrecognized stock-based compensation expense related to unvested stock options was approximately \$787,000, which is expected to be recognized over a weighted average period of approximately 29 months.

The aggregate intrinsic value of stock options outstanding, exercisable, and vested or expected to vest at December 31, 2011 was approximately \$862,000, \$564,000, and \$830,000, respectively. This amount is before applicable income taxes and represents the closing market price of the Company's common stock at December 31, 2011 less the grant price, multiplied by the number of stock options that had a grant price that is less than the closing market price. This amount represents the amount that would have been received by the optionees had these stock options been exercised on that date. During the years ended December 31, 2011 and 2010, the aggregate intrinsic value of stock options exercised was approximately \$48,000 and \$205,000, respectively.

#### Restricted Stock

The following is a summary of the restricted stock activity for the years ended December 31, 2011 and 2010:

	Shares	Weighted Average Grant Date Fair Value
Unvested, December 31, 2009	636,908	\$ 0.48
Granted	108,512	\$ 2.35
Vested	(636,908)	\$ 0.48
Canceled	-	\$ -
Unvested, December 31, 2010	108,512	\$ 2.35
Granted	278,866	\$ 2.91
Vested	(147,989)	\$ 2.49
Canceled	-	\$ -
Unvested, December 31, 2011	239,389	\$ 2.92

As of December 31, 2011, the unrecognized stock-based compensation expense related to unvested restricted stock was approximately \$454,000, which is expected to be recognized over a weighted average period of approximately 31 months.

## Dividends

The Company has not paid any cash dividends during the years ended December 31, 2011 and 2010.

## 11. INCOME TAXES

The Company accounts for income taxes under the liability method. Under the liability method, deferred income taxes are recognized for the income tax consequences of "temporary differences" by applying enacted statutory income tax rates applicable to future years to differences between the financial statement carrying amounts and the income tax bases of existing assets and liabilities.

Income tax net benefit comprises the following:

	Year Ended December 31,	
	2011	2010
Current:		
Federal	\$ (11,821)	\$ 277,585
State	195,768	(43,310)
Totals	<u>183,947</u>	<u>234,275</u>
Deferred:		
Federal	-	-
State	-	-
Totals	<u>-</u>	<u>-</u>
Income tax net benefit	<u>\$ 183,947</u>	<u>\$ 234,275</u>

Significant components of the Company's deferred income tax assets are as follows:

	December 31,	
	2011	2010
Current:		
Reserves and accruals	\$ 698,930	\$ 1,146,607
Prepaid expenses	(68,716)	(72,066)
Valuation allowance	(630,214)	(1,074,541)
Totals	<u>-</u>	<u>-</u>
Noncurrent:		
Federal net operating loss ("NOL") carryforwards	2,112,236	1,491,579
State NOL carryforwards	676,914	493,837
Hong Kong and China NOL carryforwards	995,566	1,056,000
Federal benefit on state taxes under uncertain tax positions	223,274	289,835
Stock-based compensation	145,495	(10,216)
Investment loss	54,339	43,851
Research tax credit	542,000	542,975
Alternative minimum tax credit	351,189	339,367
Depreciation	(358,673)	(65,197)
Loss on impairment of long-lived assets	54,355	52,862
Inventory valuation difference	-	745,910
Valuation allowance	(4,796,695)	(4,980,803)
Totals	<u>-</u>	<u>-</u>
Total deferred income tax assets, net	<u>\$ -</u>	<u>\$ -</u>

A reconciliation between expected income taxes, computed at the statutory federal income tax rate of 34% applied to pretax accounting income, and the income tax expense included in the consolidated statements of operations for each of the years ended December 31, 2011 and 2010 is as follows:



	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
Anticipated income tax expense at statutory rate	\$ (483,375)	\$ (449,687)
State income tax benefit (expense), net of federal tax effect	136,903	(28,217)
Effect of foreign operations	(60,437)	-
Income tax effect of uncertain tax positions	195,769	(1,936)
Net operating loss carryback	-	113,030
Inventory valuation adjustment	-	809,544
Stock-based compensation	(138,166)	(41,185)
Other changes in deferred income tax assets, net	111	(42,300)
Decrease (increase) in valuation allowance	533,142	(124,974)
Income tax net benefit	<u>\$ 183,947</u>	<u>\$ 234,275</u>

For the years ended December 31, 2011 and 2010, the Company did not recognize an income tax benefit for net operating loss carryforwards due to the uncertainty of sufficient future taxable income to utilize its deferred tax assets. The valuation allowance decreased in 2011 and increased in 2010 to fully offset all deferred tax assets generated during those years. The decrease in the valuation allowance as of December 31, 2011 was partially offset by a \$138,000 expense associated with stock-based compensation timing differences and a \$60,000 expense related to a statutory tax rate decrease on losses associated with a controlled company in China that ceased operations in 2008. The increase in the valuation allowance as of December 31, 2010 was partially offset by a \$113,000 benefit associated with the carryback of net operating losses to the 2004 and 2005 tax years and a \$810,000 benefit associated with an inventory valuation adjustment resulting from the Company's change in its method of accounting for inventories from the FIFO method to the average cost method effective as of January 1, 2010.

As of December 31, 2011, the Company had approximately \$1.01 million of remaining federal income tax credits, \$666,000 of which expire between 2012 and 2021 and the balance without an expiration, which can be carried forward to offset future income taxes. As of December 31, 2011, the Company also had a federal tax net operating loss carryforward under U.S. GAAP of approximately \$6.21 million expiring between 2020 and 2030, which can be used to offset against future federal taxable income, a North Carolina tax net operating loss carryforward of approximately \$11.90 million expiring between 2015 and 2025, and various other state tax net operating loss carryforwards expiring between 2024 and 2030, which can be used to offset against future state taxable income.

As of December 31, 2011, there was approximately \$6.03 million in net operating loss carryforwards in Hong Kong. In accordance with the Hong Kong tax code, these amounts can be carried forward indefinitely to offset future taxable income in Hong Kong.

### ***Uncertain Tax Positions***

The gross liability for income taxes associated with uncertain tax positions at December 31, 2011 was \$865,000. This amount is shown net of approximately \$123,000 recorded as a direct reduction to the associated deferred tax asset. The gross liability, if recognized, would favorably affect the Company's effective tax rate. A federal income tax benefit for state income taxes and timing differences of approximately \$223,000 resulting from the uncertain tax positions was fully reserved by a valuation allowance consistent with the full valuation allowance on the Company's other deferred tax assets. The total 2011 income tax benefit attributable to uncertain tax positions was approximately \$196,000. During the year ended December 30, 2011, the Company entered into a voluntary disclosure agreement with a taxing authority for which the Company had previously recorded a liability for an uncertain tax position. As a result of the agreement, the Company reduced its total recorded liabilities relating to uncertain tax positions by approximately \$252,000 and recognized a corresponding income tax benefit. This benefit was offset by approximately \$57,000 of income tax expense for estimated tax, penalties, and interest accrued under U.S. GAAP for other uncertain tax positions, including \$4,000 for new uncertain tax positions during 2011.

The gross liability for income taxes associated with uncertain tax positions at December 31, 2010 was \$1.06 million. This amount is shown net of approximately \$123,000 recorded as a direct reduction to the associated deferred tax asset. The gross liability, if recognized, would favorably affect the Company's effective tax rate. A federal income tax benefit for state income taxes and timing differences of approximately \$290,000 resulting from the uncertain tax positions was fully reserved by a valuation allowance consistent with the full valuation allowance on the Company's other deferred tax assets. The total 2010 income tax benefit attributable to uncertain tax positions was approximately

\$121,000. There was no additional liability for new uncertain tax positions during 2010. The Company recognized approximately \$143,000 of additional income tax benefit, consisting of a \$102,000 reduction of a deferred tax asset valuation allowance to offset liabilities associated with an uncertain tax position and approximately \$41,000 of income tax benefits due to the reduction of the penalties and interest associated with the same uncertain tax position. These benefits were offset by approximately \$43,000 of income tax expense for estimated tax, penalties, and interest accrued under U.S. GAAP for other uncertain tax positions.

The Company's policy for recording interest and penalties associated with tax audits is to record such items as a component of the provision for income taxes. During 2011 and 2010, the Company accrued interest and penalties associated with uncertain tax positions of approximately \$57,000 and \$43,000, respectively. Including the interest and penalties recorded for uncertain tax positions, there is a total of approximately \$263,000 and \$298,000 of interest and penalties included in the accrued income tax liability for uncertain tax positions at December 31, 2011 and 2010, respectively. To the extent interest and penalties are not ultimately incurred with respect to uncertain tax positions, amounts accrued will be reduced and reflected as a reduction of the overall income tax provision.

In all of the significant federal and state jurisdictions where it is required to file income tax returns, the Company has analyzed filing positions for all tax years in which the statute of limitations is open. The only periods subject to examination by the major tax jurisdictions where the Company does business are the 2008 through 2010 tax years. The Company expects in the first quarter of 2012 to enter into a voluntary disclosure agreement with a taxing authority for which the Company had previously recorded a liability for an uncertain tax position. The liability associated with the uncertain tax position has been accrued in excess of the agreed upon net liability, and the reversal of this accrued liability is expected to result in a material tax benefit during the three months ended March 31, 2012. The Company does not believe that the outcome of any examination will have a material impact on its consolidated financial statements and does not expect settlement on any uncertain tax positions within the next 12 months.

The following summarizes the activity related to the Company's gross liability for uncertain tax positions from January 1, 2010 through December 31, 2011:

Balance as of January 1, 2010	\$	1,058,659
Increases related to prior year tax positions		43,310
Decreases related to reversal of prior year tax positions by amendment of returns		(41,374)
Balance as of December 31, 2010		<u>1,060,595</u>
Increases related to prior year tax positions		52,961
Increases related to current year tax positions		3,613
Decreases related to reversal of prior year tax positions by amendment of returns		(252,343)
Balance as of December 31, 2011	\$	<u>864,826</u>

## 12. MAJOR CUSTOMERS AND CONCENTRATION OF CREDIT RISK

As of December 31, 2011, three customers accounted for 29%, 12%, and 10% of trade accounts receivable, respectively. As of December 31, 2010, five customers accounted for 30%, 24%, 13%, 13%, and 12% of trade accounts receivable, respectively.

A significant portion of sales is derived from certain customer relationships. The following is a summary of customers that represent greater than or equal to 10% of total gross sales:

	<u>Year Ended December 31,</u>	
	<u>2011</u>	<u>2010</u>
Customer A	15%	4%
Customer B	12%	18%
Customer C	11%	-
Customer D	4%	15%

### **13. EMPLOYEE BENEFIT PLAN**

All full-time employees who meet certain age and length of service requirements are eligible to participate in the Company's 401(k) Plan. The plan provides for matching contributions by the Company in such amounts as the Board of Directors may annually determine, as well as a 401(k) option under which eligible participants may defer a portion of their salaries. The Company contributed a total of \$41,000 and \$21,000 to the plan during the years ended December 31, 2011 and 2010, respectively.

#### **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**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2011. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, as ours are designed to do, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2011, our disclosure controls and procedures were effective at the reasonable assurance level.

##### **Changes in Internal Control Over Financial Reporting**

We routinely review our internal control over financial reporting and from time to time make changes intended to enhance the effectiveness of our internal control over financial reporting. We will continue to evaluate the effectiveness of our disclosure controls and procedures and internal control over financial reporting on an ongoing basis and will take action as appropriate. During the three months ended December 31, 2011, we made no changes to our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, that we believe materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

##### **Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control system was designed to provide reasonable assurance to our management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our

receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to the reliability of financial reporting and the preparation of financial statements.

In making the assessment of internal control over financial reporting, our management used the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework*. Based on that assessment and those criteria, management determined that our internal control over financial reporting was effective as of December 31, 2011.

**Item 9B. Other Information**

None.

**PART III**

**Item 10. Directors, Executive Officers and Corporate Governance**

**Item 11. Executive Compensation**

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

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

**Item 14. Principal Accounting Fees and Services**

The information called for in Items 10 through 14 is incorporated by reference from our definitive Proxy Statement relating to our 2012 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after the end of fiscal 2011.

**PART IV**

**Item 15. Exhibits, Financial Statement Schedules**

(a)(1) and (2). The consolidated financial statements and report of our independent registered public accounting firm are filed as part of this report (see "Index to Financial Statements," at Part II, Item 8). The financial statement schedules are not included in this Item as they are either not applicable or the information is otherwise included in the consolidated financial statements or the notes to the consolidated financial statements.

(a)(3). The following exhibits have been or are being filed herewith and are numbered in accordance with Item 601 of Regulation S-K:

<u>Exhibit No.</u>	<u>Description</u>
3.1	Restated Articles of Incorporation of Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 3.1 to our Annual Report on Form 10-K for the year ended December 31, 2004)
3.2	Bylaws of Charles & Colvard, Ltd., as amended and restated, effective May 19, 2011 (incorporated herein by reference to Exhibit 3.1 to our Current Report on Form 8-K, as filed with the SEC on May 24, 2011)

- 4.1 Specimen Certificate of Common Stock (incorporated herein by reference to Exhibit 4.1 to our Annual Report on Form 10-K for the year ended December 31, 1998)
- 10.1 Amended and Restated Exclusive Supply Agreement, dated as of June 6, 1997, between Cree Research, Inc. and C3, Inc. (incorporated herein by reference to Exhibit 10.11 to our Registration Statement on Form S-1 (File No. 333-36809), as filed with the SEC on September 30, 1997)\*
- 10.2 Notice of Extension of Amended and Restated Exclusive Supply Agreement, dated January 6, 2005, from Charles & Colvard, Ltd. to Cree, Inc. (incorporated herein by reference to Exhibit 10.69 to our Current Report on Form 8-K, as filed with the SEC on January 7, 2005)
- 10.3 Letter Agreement, dated January 31, 1996, between Cree Research, Inc. and C3, Inc. (incorporated herein by reference to Exhibit 10.14 to our Registration Statement on Form S-1 (File No. 333-36809), as filed with the SEC on September 30, 1997)\*
- 10.4 Letter Agreement, dated November 12, 2007, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.108 to our Current Report on Form 8-K, as filed with the SEC on November 13, 2007)\*
- 10.5 Letter Agreement, dated September 18, 2008, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.123 to our Current Report on Form 8-K, as filed with the SEC on September 24, 2008)
- 10.6 Letter Agreement, effective March 22, 2010, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.6 to our Annual Report on Form 10-K for the year ended December 31, 2009)\*
- 10.7 Letter Agreement, dated February 9, 2005 and effective February 21, 2005, between The Bell Group, d/b/a Rio Grande and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.73 to our Current Report on Form 8-K, as filed with the SEC on February 23, 2005)\*
- 10.8 Letter Agreement, effective July 11, 2008, between Samuel Aaron Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.120 to our Current Report on Form 8-K, as filed with the SEC on July 17, 2008)\*
- 10.9 Licensing Agreement, dated July 11, 2008, by and between Charles and Colvard, Ltd. and Samuel Aaron Inc. (incorporated herein by reference to Exhibit 10.121 to our Current Report on Form 8-K, as filed with the SEC on July 17, 2008)
- 10.10 Letter Agreement, effective November 4, 2009, between Stuller, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K, as filed with the SEC on November 10, 2009)\*
- 10.11 Memorandum of Understanding, dated January 24, 2012, between Charles & Colvard, Ltd. and Serenity Technologies, Inc. (incorporated herein by reference to Exhibit 10.1 to our Amendment No. 1 to Current Report on Form 8-K/A, as filed with the SEC on March 20, 2012)\*
- 10.12 Lease Agreement, dated March 26, 2004, by and between Duke Realty Limited Partnership and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.62 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004)
- 10.13 First Lease Amendment, dated September 22, 2004, by and between Duke Realty Limited Partnership and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.17 to our Annual Report on Form 10-K for the year ended December 31, 2010)

- 10.14 Second Amendment to Lease Agreement, dated July 30, 2010, by and between Raleigh Flex Owner I, LLC and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2010)
- 10.15 Third Amendment to Lease Agreement, dated January 1, 2011, by and between Raleigh Flex Owner I, LLC and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.19 to our Annual Report on Form 10-K for the year ended December 31, 2010)
- 10.16 Director Compensation Structure, effective November 11, 2009 (incorporated herein by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2009)+
- 10.17 Board Compensation Program, effective March 16, 2011 (incorporated herein by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the year ended December 31, 2010)+
- 10.18 Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 99 to our Registration Statement on Form S-8 (File No. 333-151255), as filed with the SEC on May 29, 2008)+
- 10.19 Form of Restricted Stock Award Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.115 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.20 Form of Employee Incentive Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.116 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.21 Form of Employee Nonqualified Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.118 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.22 Form of Director Nonqualified Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.119 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.23 Form of Special Committee Restricted Stock Award Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.129 to our Annual Report on Form 10-K for the year ended December 31, 2008)+
- 10.24 Corporate Incentive Plan, effective January 1, 2010 (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K, as filed with the SEC on March 23, 2010)+
- 10.25 Form of Indemnification Agreement (incorporated herein by reference to Exhibit 10.109 to our Current Report on Form 8-K, as filed with the SEC on December 10, 2007)+
- 10.26 Employment Agreement, effective as of June 23, 2009, by and between Charles and Colvard, Ltd. and Timothy L. Krist (incorporated herein by reference to Exhibit 10.130 to our Current Report on Form 8-K, as filed with the SEC on June 26, 2009)+
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- 21.1 Subsidiaries of Charles & Colvard, Ltd.
- 23.1 Consent of BDO USA, LLP
- 31.1 Certification by Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification by Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification by Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification by Chief Financial Officer 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 Charles & Colvard, Ltd.'s Annual Report on Form 10-K for the year ended December 31, 2011 formatted in XBRL (eXtensible Business Reporting Language) and furnished electronically herewith: (i) Consolidated Balance Sheets; (ii) Consolidated Statements of Operations; (iii) Consolidated Statements of Shareholders' Equity and Comprehensive Income; (iv) Consolidated Statements of Cash Flows; and (v) Notes to Consolidated Financial Statements, tagged as blocks of text.++

\* Asterisks located within the exhibit denote information which has been redacted pursuant to a request for confidential treatment filed with the SEC.

+ Management contract or compensatory plan or arrangement.

++ Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files in Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act, are deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise are not subject to liability under those sections.

## 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.

### CHARLES & COLVARD, LTD.

March 29, 2012 By: /s/ Randy N. McCullough  
Randy N. McCullough  
President and Chief Executive Officer

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

March 29, 2012 By: /s/ Randy N. McCullough  
Randy N. McCullough  
Director, President and Chief Executive Officer

March 29, 2012 By: /s/ Timothy L. Krist  
Timothy L. Krist  
Chief Financial Officer  
(Principal Financial Officer and Chief Accounting Officer)

March 29, 2012 By: /s/ George R. Cattermole  
George R. Cattermole  
Chairman of the Board of Directors

March 29, 2012 By: /s/ David B. Barr  
David B. Barr  
Director

March 29, 2012 By: /s/ H. Marvin Beasley  
H. Marvin Beasley  
Director

March 29, 2012 By: /s/ Steven M. Larkin  
Steven M. Larkin  
Director

March 29, 2012 By: /s/ Charles D. Lein  
Charles D. Lein  
Director

March 29, 2012 By: /s/ Ollin B. Sykes  
Ollin B. Sykes  
Director



## EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1	Restated Articles of Incorporation of Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 3.1 to our Annual Report on Form 10-K for the year ended December 31, 2004)
3.2	Bylaws of Charles & Colvard, Ltd., as amended and restated, effective May 19, 2011 (incorporated herein by reference to Exhibit 3.1 to our Current Report on Form 8-K, as filed with the SEC on May 24, 2011)
4.1	Specimen Certificate of Common Stock (incorporated herein by reference to Exhibit 4.1 to our Annual Report on Form 10-K for the year ended December 31, 1998)
10.1	Amended and Restated Exclusive Supply Agreement, dated as of June 6, 1997, between Cree Research, Inc. and C3, Inc. (incorporated herein by reference to Exhibit 10.11 to our Registration Statement on Form S-1 (File No. 333-36809), as filed with the SEC on September 30, 1997)*
10.2	Notice of Extension of Amended and Restated Exclusive Supply Agreement, dated January 6, 2005, from Charles & Colvard, Ltd. to Cree, Inc. (incorporated herein by reference to Exhibit 10.69 to our Current Report on Form 8-K, as filed with the SEC on January 7, 2005)
10.3	Letter Agreement, dated January 31, 1996, between Cree Research, Inc. and C3, Inc. (incorporated herein by reference to Exhibit 10.14 to our Registration Statement on Form S-1 (File No. 333-36809), as filed with the SEC on September 30, 1997)*
10.4	Letter Agreement, dated November 12, 2007, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.108 to our Current Report on Form 8-K, as filed with the SEC on November 13, 2007)*
10.5	Letter Agreement, dated September 18, 2008, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.123 to our Current Report on Form 8-K, as filed with the SEC on September 24, 2008)
10.6	Letter Agreement, effective March 22, 2010, between Cree, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.6 to our Annual Report on Form 10-K for the year ended December 31, 2009)*
10.7	Letter Agreement, dated February 9, 2005 and effective February 21, 2005, between The Bell Group, d/b/a Rio Grande and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.73 to our Current Report on Form 8-K, as filed with the SEC on February 23, 2005)*
10.8	Letter Agreement, effective July 11, 2008, between Samuel Aaron Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.120 to our Current Report on Form 8-K, as filed with the SEC on July 17, 2008)*
10.9	Licensing Agreement, dated July 11, 2008, by and between Charles and Colvard, Ltd. and Samuel Aaron Inc. (incorporated herein by reference to Exhibit 10.121 to our Current Report on Form 8-K, as filed with the SEC on July 17, 2008)
10.10	Letter Agreement, effective November 4, 2009, between Stuller, Inc. and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K, as filed with the SEC on November 10, 2009)*
10.11	Memorandum of Understanding, dated January 24, 2012, between Charles & Colvard, Ltd. and Serenity Technologies, Inc. (incorporated herein by reference to Exhibit 10.1 to our Amendment No. 1 to Current Report on Form 8-K/A, as filed with the SEC on March 20, 2012)*

- 10.12 Lease Agreement, dated March 26, 2004, by and between Duke Realty Limited Partnership and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.62 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004)
- 10.13 First Lease Amendment, dated September 22, 2004, by and between Duke Realty Limited Partnership and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.17 to our Annual Report on Form 10-K for the year ended December 31, 2010)
- 10.14 Second Amendment to Lease Agreement, dated July 30, 2010, by and between Raleigh Flex Owner I, LLC and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2010)
- 10.15 Third Amendment to Lease Agreement, dated January 1, 2011, by and between Raleigh Flex Owner I, LLC and Charles & Colvard, Ltd. (incorporated herein by reference to Exhibit 10.19 to our Annual Report on Form 10-K for the year ended December 31, 2010)
- 10.16 Director Compensation Structure, effective November 11, 2009 (incorporated herein by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2009)+
- 10.17 Board Compensation Program, effective March 16, 2011 (incorporated herein by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the year ended December 31, 2010)+
- 10.18 Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 99 to our Registration Statement on Form S-8 (File No. 333-151255), as filed with the SEC on May 29, 2008)+
- 10.19 Form of Restricted Stock Award Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.115 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.20 Form of Employee Incentive Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.116 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.21 Form of Employee Nonqualified Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.118 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.22 Form of Director Nonqualified Stock Option Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.119 to our Current Report on Form 8-K, as filed with the SEC on June 2, 2008)+
- 10.23 Form of Special Committee Restricted Stock Award Agreement under the Charles & Colvard, Ltd. 2008 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.129 to our Annual Report on Form 10-K for the year ended December 31, 2008)+
- 10.24 Corporate Incentive Plan, effective January 1, 2010 (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K, as filed with the SEC on March 23, 2010)+
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## DIRECTORS

**DAVID B. BARR**  
Chairman & Majority Owner,  
PMTD Restaurants LLC

**H. MARVIN BEASLEY**  
Retired Chief Executive Officer,  
Helzberg Diamonds

**GEORGE R. CATTERMOLE**  
Chairman of the Board,  
Charles & Colvard, Ltd.

**STEVEN M. LARKIN**  
Senior Vice President, Direct,  
Golfsmith International Holdings, Inc.

**CHARLES D. LEIN, Ed.D.**  
Retired President &  
Chief Operating Officer,  
Stuller, Inc.

**RANDALL N. McCULLOUGH**  
President & Chief Executive Officer,  
Charles & Colvard, Ltd.

**OLLIN B. SYKES**  
President,  
Sykes & Co., P.A.

## STOCK LISTING

NASDAQ Global Select Market  
Symbol: CTHR

## EXECUTIVE OFFICERS

**RANDALL N. McCULLOUGH**  
President & Chief Executive Officer

**TIMOTHY L. KRIST**  
Chief Financial Officer & Treasurer

**THOMAS G. PAUTZ**  
Vice President, Sales & Marketing

## CORPORATE HEADQUARTERS

300 Perimeter Park Drive, Suite A  
Morrisville, NC 27560

## TRANSFER AGENT & REGISTRAR

American Stock Transfer & Trust Company  
Operations Center  
6201 15th Avenue  
Brooklyn, NY 11219  
1.800.937.5449  
info@amstock.com

## INVESTOR RELATIONS

For investor relations and shareholder inquiries, please contact:

Chris Schreiber  
Managing Director  
Taglich Brothers, Inc.  
790 New York Avenue  
Suite 209  
Huntington, NY 11743  
1.917.445.6207  
cs@taglichbrothers.com

Sign up for Investor-related E-mail Alerts by visiting our website at:

<http://www.charlesandcolvard.com/ir/ealerts>

## ANNUAL MEETING OF SHAREHOLDERS

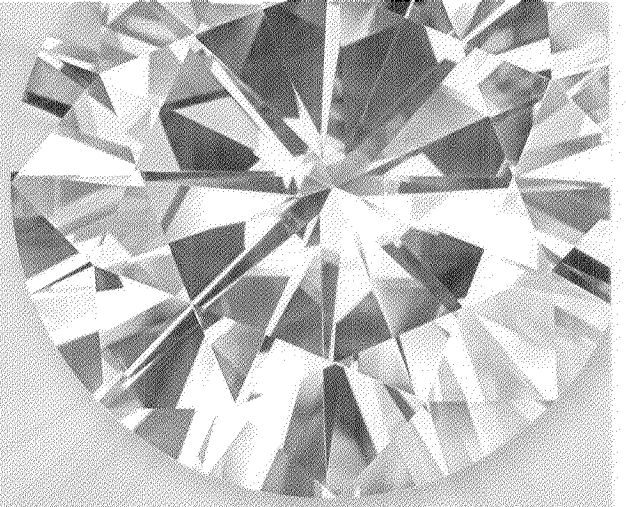
Thursday, May 17, 2012, 10:00 a.m.  
Sheraton Imperial Hotel  
4700 Emperor Boulevard  
Durham, NC 27703

### CAUTIONARY NOTE:

This Annual Report contains forward-looking statements relating to the company's business. Our business is subject to numerous risks and uncertainties, which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. We refer you to our Annual Report on Form 10-K for a discussion of such risks and uncertainties.



This Annual Report is printed on  
SFI certified paper with 10% recycled content.



CHARLES & COLVARD, LTD.

300 Perimeter Park Drive, Suite A  
Morrisville, NC 27560

Telephone 1.919.468.0399 / Fax 1.919.468.0486

[www.charlesandcolvard.com](http://www.charlesandcolvard.com)