

ADE CORP  
Form 10-K  
July 31, 2006  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**WASHINGTON, D.C. 20549**

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**FORM 10-K**

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(Mark One)

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

For the fiscal year ended April 30, 2006

OR

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

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

Commission file number 0-26714

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**ADE CORPORATION**

(Exact Name of Registrant as Specified in its Charter)

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Massachusetts  
(State of Incorporation)

04-2441829  
(I.R.S. Employer Identification No.)

80 Wilson Way

Westwood, Massachusetts

02090

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(Address of Principal Executive Offices)

(Zip Code)

(781) 467-3500

(Registrant's Telephone Number, Including Area Code)

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

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

Common Stock, \$0.01 par value

(Title of class)

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer ☐ Accelerated Filer ☒ Non-Accelerated Filer ☐

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 October 31, 2005, there were outstanding 14,387,787 shares of common stock, \$.01 par value per share. The aggregate market value of shares of common stock held by non-affiliates of the registrant, based upon the last sale price for such stock on that date as reported by the Nasdaq National Market (now known as the Nasdaq Global Market (the "NasdaqGM")), was approximately \$210,471,000. The number of the registrant's shares of common stock, \$.01 par value per share, outstanding as of July 25, 2006 was 14,549,835.

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### **PART I**

#### **CAUTIONARY STATEMENT REGARDING FORWARD LOOKING STATEMENTS**

*Except for historical information, this Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and federal securities laws that are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. These statements include, but are not limited to, those relating to expected demand for, and acceptance of, our new and existing products, our expectations for future financial performance and sources and uses of liquid assets, continued execution of our business strategy, the effects of economic trends on the semiconductor wafer, semiconductor device, magnetic data storage and optics manufacturing industries and the impact of new accounting pronouncements. Those statements that make reference to the Company's expectations, predictions, beliefs, assumptions and anticipations should be considered forward-looking statements. The sections entitled Management's Discussion and Analysis of Financial Condition and Results of Operations, Risk Factors and Business, including, but not limited to, the sub-sections entitled Overview, Cyclicalities of Our Business, Competition, Customer and Industry Concentration, Dependence on Suppliers, New Accounting Pronouncements and Risks Associated with International Operations as well as other sections of this Annual Report on Form 10-K contain a discussion of some of the factors that could contribute to these differences. Any forward-looking statements are made as of the date of this report and we assume no obligation to update any such forward-looking statements or to update the reasons why actual results could differ materially from those anticipated in such forward-looking statements.*

#### **ITEM 1. BUSINESS**

ADE Corporation, incorporated in 1967, is engaged in the design, manufacture, marketing and service of production metrology and inspection systems for the semiconductor wafer, semiconductor device, magnetic data storage and optics manufacturing industries. Our systems analyze and report product quality at critical manufacturing process steps, sort wafers and disks, and provide manufacturers with quality certification data upon which they rely to manage processes and accept incoming material. Semiconductor wafer, device, magnetic data storage and optics manufacturers use our systems to improve yield and capital productivity. When we use the terms ADE, the Company, we, our or us in this Annual Report, we are referring to ADE Corporation and its consolidated subsidiaries taken as a whole, unless otherwise indicated.

ADE operates three major business segments, the Semiconductor Systems Group (SSG), ADE Phase Shift (PST) and ADE Technologies (ATI). SSG manufactures multifunctional semiconductor metrology systems, semiconductor wafer defect inspection and classification equipment, and process control data and yield analysis and management systems. PST manufactures high performance, non-contact surface metrology equipment using advanced interferometric technology that provides enhanced yield management to the data storage, semiconductor and optics industries. ATI manufactures high precision magnetic characterization and non-contact dimensional metrology gauging systems for the magnetic data storage, fundamental research and semiconductor manufacturing industries. For segment financial information, see Note 13 in the accompanying consolidated financial statements.

ADE's strategy is to provide its customers with complete metrology and inspection and data management solutions for optimization of their processes, workflow, and engineering. We accomplish these goals by offering a broad range of advanced metrology and inspection systems, featuring factory automation and control options, and software data management and analysis packages. ADE designs focus on a modular approach, which targets the lowest cost of ownership for a system at any given process step.

#### **Merger with KLA-Tencor Corporation**

On February 22, 2006, we entered into a definitive Agreement and Plan of Merger (the Merger Agreement) with KLA-Tencor Corporation (KLA-Tencor) and South Acquisition Corporation, a wholly owned subsidiary of KLA-Tencor (South). Pursuant to the Merger Agreement, each share of the Company's common stock was to be exchanged for 0.64 shares of KLA-Tencor common stock on a fixed basis.

On May 26, 2006, we entered into a definitive Amended and Restated Agreement and Plan of Merger (the Amended Merger Agreement) with KLA-Tencor and South. The Amended Merger Agreement amended and restated the Merger Agreement, and changed the consideration payable to ADE stockholders from 0.64 shares of KLA-Tencor common stock to \$32.50 in cash per share of ADE common stock.

The Amended Merger Agreement provides that, among other things, upon the terms and subject to the conditions set forth in the Amended Merger Agreement, South will merge with and into ADE, with ADE continuing as the surviving corporation and a wholly owned subsidiary of KLA-Tencor (the Merger). ADE's stockholders approved the Merger on July 13, 2006. Consummation of the Merger is subject to customary closing conditions, including the approval of German antitrust authorities.



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### **Products**

Our products have evolved from single instruments used in off-line engineering analysis to full, 100% in-line, automated metrology and inspection solutions throughout the wafer, semiconductor device and magnetic data storage manufacturing processes. Our systems are targeted to deliver the high throughput, reliability, information and analysis necessary to meet the demands of increasingly complex and time-sensitive manufacturing processes.

Our principal products in the semiconductor wafer, semiconductor device and magnetic data storage device industries are described below. All of our metrology and inspection systems have the capability to record, print and store measurement data locally, as well as distribute the data via a network for yield and process management and off-line analysis.

#### *Semiconductor Industry Products*

##### ***Wafer Dimensional Measurements***

**WaferSight<sup>®</sup> System.** The wafer flatness and shape metrology tool-of-choice for 300mm and advanced 200mm production, the WaferSight systems' measurement precision allows wafer and device manufacturers to meet ITRS metrology requirements down to the 45nm generation. Utilizing optical interferometric technologies, the WaferSight system extends ADE's market presence in wafer dimensional metrology, leveraging 30 years of industry leadership and our knowledge of process and market requirements.

**Advanced Flatness System<sup>®</sup> (AFS).** The AFS was the 300mm silicon wafer production standard for the 130nm generation and above. The wafer is handled only by the edges, thereby minimizing the possibility of any surface contamination or damage due to contact with the polished surfaces of the wafer. The two-sided capacitance-based AFS measurement is well-suited for high volume polished wafer, pre-polish, epi, SOI, strained silicon, patterned wafer and reclaim operations.

**UltraGage<sup>®</sup> Series.** The UltraGage<sup>®</sup> series of automated benchtop metrology systems incorporate a single measurement module and robotic handler for several measurements, including wafer shape, flatness, thickness, conductivity type and stress on silicon, epi, SOI, or patterned wafers. The UltraGage<sup>®</sup> series includes systems optimized to handle the ultra-thin processed wafers used in the manufacture of devices for smart cards and advanced electronic packages, bumped wafers and MEMS.

**UltraScan<sup>®</sup> Series.** The UltraScan<sup>®</sup> series of products are high throughput, 150mm to 200mm in-line production systems for the measurement and sorting of wafers at various stages of the wafer manufacturing and device fabrication processes. UltraScan<sup>®</sup> systems measure wafer thickness, flatness, shape, resistivity and other mission-critical dimensional properties and can be integrated with factory automation systems.

**NanoMapper<sup>®</sup> Series.** NanoMapper<sup>®</sup> systems measure and analyze nanotopography, front surface non-planar topographic wafer features, on semiconductor wafers using proprietary noncontact optical interference techniques to detect a variety of process-induced defects and process control failures in silicon wafer and device manufacturing processes. Improved control of these defects can increase yields and reduce costs for 90nm and 65nm devices in CD control, shallow trench isolation (STI), and chemical mechanical planarization (CMP) results. The NanoMapper system was the winner of the prestigious R&D 100 award, presented by R&D Magazine in the year 2000.

##### ***Surface Inspection Systems***

**Film Inspection Tool<sup>TM</sup> (FIT).** The FIT provides reliable inspection and defect detection on unpatterned films, ranging from dielectrics through metals, SOI, and strained silicon. Using ADE's patented angular resolve scatter technology, FIT can detect and classify particles and defects over a wide range of applications. The FIT's superior performance is the result of successfully deploying our intellectual property onto existing hardware and software platforms to meet new metrology requirements.

**Advanced Wafer Inspection System<sup>TM</sup> (AWIS).** The AWIS is a fully automated inspection tool designed to handle the advanced surface inspection and defect detection requirements of 200mm and 300mm polished and epitaxial wafer production. This system reduces the need for time consuming, off-line inspection of the wafers. The system meets the requirements for the 100nm design rules for high speed sorting applications.

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### ***Film Metrology Systems***

**NanoXam Systems.** The new NanoXam system is an in-line production metrology tool which quickly and precisely measures dishing of wide lines and erosion of fine-line arrays, for copper and tungsten CMP process monitoring and characterization. The noncontact NanoXam design uses low noise interferometry to measure both scribe line monitors and actual device structures on product wafers, providing surface profiles and 3-D topography maps.

**AcuMap Series.** AcuMap systems are full-wafer film thickness monitoring tools for SOI, CMP and photolithography applications. AcuMap systems provide high-speed full wafer mapping with high data density on various thin films for production process development and control. The industry standard for high-speed SOI film mapping, AcuMap systems have shown excellent results in measuring leading edge ultra-thin SOI layers for fully depleted CMOS applications.

### ***Yield Management Systems***

**FabVision Systems.** The new FabVision product is a fab-wide, real-time data analysis, storage and retrieval system that continuously monitors, issues alerts and reports, and manages product quality information for increased tool utilization and higher process yields. The fully integrated server, workstation and software package collects and combines data from ADE's WaferSight optical flatness system, AFS Advanced Flatness System, AWIS Advanced Wafer Inspection System, FIT Film Inspection Tool, NanoMapper® surface topography system, AcuMap film thickness mapper, WaferCheck®, UltraGage® and UltraScan® dimensional sorting systems and CR8X particle inspection products.

### ***Disk Industry Products***

#### ***Proprietary ADE Magnetic Technology***

**Vibrating Sample Magnetometers ( VSM ).** The VSM is used to measure the magnetic properties of the broad-spectrum of magnetic materials. The VSM product line is comprised of several models, varying in maximum field strength and sensitivity. Systems can be configured to characterize anisotropy in magnetic materials, the understanding of which is rapidly becoming critical in the development of magnetic disks, recording heads, and MRAM. Specifically developed for this purpose is the Model 10, an advanced Vector VSM for research on directional properties of magnetic materials.

**X9 Magnetic Properties Analysis System ( X9 MPAS ).** The X9 MPAS is a fully automated system designed to make an in-depth analysis of GMR style head coupons. Based upon the Model 10 VSM, the X9 MPAS automatically loads, measures and returns wafer coupons, repeatedly measuring layer thicknesses to less than 0.2 NiFe equivalent Angstroms. In addition to layer thickness, the X9 MPAS measures all Hysteresis and transport properties in a single step and has replaced several pieces of equipment in the process control of advanced head production. The X9 MPAS system was the winner of the R&D 100 award, presented by R&D Magazine in the year 2002.

**KerrMapper V/S 300 Platform.** The KerrMapper V/S 300 is the latest generation of Wafer Mapping Systems and is designed specifically to address the HDD head wafer, perpendicular magnetic recording media, Soft Underlayer, and emerging MRAM markets. A proprietary Quadrupole magnet design with active field control, for example, allows MRAM developers to simulate the action of the MRAM device early in the process control of the magnetic films, and characterize patterned MRAM arrays. Using a patented Vector Kerr capability, the user can measure easy axis distribution with unparalleled accuracy and determine the switching field distribution with greater accuracy. The V300 is suitable for the most advanced HDD head wafer or MRAM R&D and production, as well as in-depth studies of the uniformity of the TMR stacks at the sheet film level.

**M2 DiskMapper.** The M2 DiskMapper system is an in-line fully automated noncontact measurement system that maps the variation of the most critical magnetic parameters over the surface of longitudinal magnetic recording disks. The data provided by the tool is used to directly control the sputtering process. The M2 DiskMapper can be configured to handle multiple form factors.

**Polar Kerr Mapping System.** Advances in areal density of HDD media are continuing at a rapid pace. Leading edge media developers are now working on replacing longitudinal media with perpendicular media in which the magnetic bits are orthogonal to the plane of the disk. The Polar Kerr Mapping System is designed to characterize this new media segment in development and control the deposition process in production. It handles the new media directly from cassette and leverages ADE's years of Kerr experience.

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### ***Proprietary ADE Capacitance Technology***

**MicroSense® II.** As the disk drive industry moves to ever-quieter fluid bearing motors there is an increasing requirement to measure non-repetitive run-out to achieve higher track densities. The MicroSense® II product line has been widely adopted by disk drive motor manufacturers. It has also achieved success in specialized applications such as fast tool servo-control outside of the disk drive market.

**Passive Gauging.** ADE's passive capacitive gauging systems make use of a design that is fundamentally different from the MicroSense II products. These passive capacitance gauges are incorporated in a number of ADE products that serve the hard disk, compact disk and semiconductor markets. ADE Passive Gauges are increasingly being used by other semiconductor capital equipment makers on an OEM basis to solve difficult servo-control problems where high precision and high stability are required.

**Motor Test Systems.** Our entire line of gauging products undergo continuous product improvement to keep pace with the rapid developments in the HDD and semiconductor equipment markets. Utilizing the recently introduced SpinCheck HR motor test system with ADE's noncontact dimensional gauging provides disk motor manufacturers with motor shaft runout measurements in both time and frequency domains. This software allows users to define sophisticated pass/fail criteria for production testing.

**Series 4800, 5800, 6800,8800 and SpinCheck HR.** Our new 6800 and 8800 series capacitance gauging system meet the ever-increasing demands of precision staging applications and disk drive motor manufacturers as they develop the next generation fluid dynamic bearing motors. The 4800 series gauge capabilities are being expanded to perform critical positioning of optics or targets in high vacuum applications to serve the needs of semiconductor capital equipment manufacturers.

### ***Proprietary ADE Interferometer Based Tools***

**MiniFIZ™ Series of Interferometers ( MiniFIZ ).** MiniFIZ series is a family of laser-based Fizeau interferometers that test the surface flatness, curvature and other shape characteristics of polished precision components such as optical mirrors, lenses and computer disks. The MiniFIZ interferometers provide interactive 3D modeling, statistical reporting, and user-selectable production and research modes. The product can be combined with full robotic automation to meet the needs of disk media and substrate process control.

**MicroXAM Optical Profilers.** These 3D optical profilers are interference microscopes which produce measurements of the shape, density and distribution of laser bumps in the laser-textured area of hard disks. The MicroXAM optical profiler is the industry standard for measuring the laser-textured area of hard disk media. Other configurations of MicroXAM products measure disk dub-off. Dub-off is the transition between the top (usable) surface of the disk, and the rough edge of the disk. MicroXAM systems, consequently, are used widely by disk media manufacturers and by hard drive manufacturers.

### **Products in Development**

In order to maintain our technology leadership, we continue to introduce new products.

**WaferXam System.** The WaferXam advanced darkfield laser scanning system is ADE's latest-generation nano-particle inspection and defect classification tool for inspection of prime silicon substrates at semiconductor incoming quality control and silicon wafer suppliers. The WaferXam tool features a new system design, utilizing enhancements to ADE's patented Angle Resolve Scatter architecture, for highly improved defect detection sensitivity and classification performance for the 45nm process development market and sub-65nm wafer production market, with production throughput in excess of fifty 300mm wafers per hour.

### **Technology**

Our metrology and inspection products use our proprietary non-contact capacitive, optical, eddy-current, interferometric and magnetic technologies to measure the dimensional, electrical magnetic and surface characteristics of semiconductor wafers and devices and computer hard disks and disk drives.

#### ***Dimensional Technology***

Our non-contact capacitive gauging technology, which is the subject of a series of patents, is used to measure the dimensional parameters (thickness, flatness, shape) of semiconductor wafers, computer hard disks and other objects. This technology is based on the measurement of the capacitance between a measurement probe and the surface of the object. The capacitance varies as a precise function of the distance between the

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probe and the object being measured. For example, in the measurement of a semiconductor wafer, two probes, one on each side of the wafer, map both wafer surfaces simultaneously. Electronic circuitry converts the probe capacitance signal into distance signals, which are translated by our software to produce information concerning the wafer's thickness, flatness and shape.



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### *Surface Inspection Technology*

We use patented optical technology to detect microscopic surface defects and non-uniformity. A finely focused laser beam is scanned over the surface of the wafer. Surface non-uniformities, particles or defects cause some of the beam's energy to deflect or scatter. Sensitive detectors quantify the scattering signals, which are translated by our software to produce information about particles, micro scratches, haze, nanopopography and other process-induced defects on the wafer surface. Although the principles of our optical technology are similar to those used by other manufacturers, we believe our theoretical modeling, patented optical engineering and proprietary software result in our products having a superior combination of high sensitivity and throughput.

### *Interferometric Technology*

Optical interference is a technique used to produce surface images of alternating bright and dark images, called fringes, which correspond to variations in surface height. Using multiple reflection, optical interference can precisely measure variations in the height of a surface as small as a few atomic layers. Our software provides the ability to create and analyze these three-dimensional surface maps, comprised of millions of data points, which are used by our customers in advanced process development and in production control.

### *Magnetics Characterization Technology*

Our products for characterizing magnetic materials use a variety of non-contact measurement technologies including lasers (the Kerr effect), vibrating sample and torque-effect inductive sensing techniques. We believe our world-class theoretical modeling and magnetics engineering enable us to offer automated products with superior sensitivity, speed, accuracy and reproducibility.

### *Proprietary Software*

Our proprietary software analyzes and transforms the large amounts of data generated by our metrology and inspection systems to produce information about process-induced defects that supports real-time process management. The flexible design of this software permits recipe-driven reconfiguration of these products to serve new applications with a minimum of hardware or software redesign or development. Our software is designed to integrate our various metrology functions with one another while implementing industry standards for integrating our products with the manufacturing facility's information systems. We currently have applied for patent protection on unique features of our software.

### **Service**

The Company's service business consists of installation, training, product maintenance and technical support services.

### **Marketing, Sales and Customer Support**

We market and sell our semiconductor metrology and inspection products through our direct sales force, distributors and independent sales representatives. We market and sell our metrology and inspection products in the United States through full-time salespersons located in Milpitas, California; Dallas, Texas; Vancouver, Washington; Tucson, Arizona and Westwood, Massachusetts. We market and sell our metrology and inspection products in Europe through full-time salespersons located in Germany. We market and sell our metrology and inspection products in Malaysia and Singapore through full-time salespersons located in Malaysia. During the past fiscal year, approximately 39% of our revenue was derived through our direct sales organization. Our direct sales force is supported by applications engineers in selected field offices and in each of our manufacturing locations.

Sales of wafer dimensional systems, capacitive probes, and disk industry products in Japan are supported by Japan ADE, Ltd. ( JAL ), a joint venture between ADE and Kanematsu Electronics, Ltd. ( KEL ). Sales of surface inspection products are provided in Japan by a separate distributor. We also sell our semiconductor metrology and inspection products in Israel, South Korea, Singapore, Taiwan, and the People's Republic of China through independent sales representatives. We directly market and sell our non-contact capacitive, dimensional metrology and magnetic characterization data storage products in the United States and internationally through distributors and sales representatives. We directly market and sell our interferometric based surface metrology products in the United States and internationally through distributors and sales representatives.

The selling process for our products frequently involves participation by sales, marketing and customer support personnel. Customers and potential customers often evaluate our products by sending semiconductor and device wafers to us for measurement or by installing demonstration equipment at their facilities. We maintain demonstration equipment at our manufacturing sites and at some



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of our sales offices for this purpose. We plan to continue our investment in demonstration equipment to accelerate the introduction of new products. Our marketing activities also include participation in international standards organizations, trade shows, the publication of articles in trade journals, industry forums and the distribution of sales literature.

We believe that our strong commitment to service is essential, based on the growing complexity of the equipment used in the semiconductor manufacturing process. This complexity makes it difficult for semiconductor wafer and device manufacturers to maintain an internal workforce sufficiently skilled and specialized to support the disparate equipment and technologies used in their processes. We have customer support centers in Westwood, Massachusetts; Dallas, Texas; Milpitas, California; Vancouver, Washington and Tucson, Arizona in the United States; Munich, Germany; and Kuala Lumpur, Malaysia. In addition, our distributors and independent sales representatives provide customer support. We also offer training programs and maintenance contracts for our customers. We typically offer warranties of twelve months covering the performance and reliability of our products.

### **Customers**

Our customers include the leading semiconductor wafer manufacturers and many of the leading semiconductor device, magnetic data storage and disk drive manufacturers throughout the world. Historically, a relatively limited number of customers, comprising a large share of the market, have accounted for a substantial portion of our revenue. In fiscal years 2006, 2005 and 2004, sales to our top five customers accounted for approximately 61%, 71% and 74% of our revenue, respectively. During fiscal year 2006, one of our customers, JAL, who distributes the Company's dimensional products in Japan, accounted for 31% of our revenue. Revenue from a second and third customer accounted for 11% and 8%, respectively, of our revenue in fiscal 2006. During the past fiscal year, approximately 67% of our revenue was derived from sales made to wafer manufacturers, with the remainder derived from sales to manufacturers of semiconductor devices, magnetic data storage, disk drives and semiconductor equipment. Our principal customers, in alphabetical order, are as follows:

#### **Semiconductor Wafer Manufacturers**

Canon Sales Company, Inc.

Japan ADE, Ltd.

MEMC Electronic Materials

Shin-Etsu Handotai

Siltron

Siltronic

SUMCO

#### **Semiconductor Device Manufacturers**

Peter Wolters

Promos Technologies, Inc.

Samsung

Texas Instruments

#### **Data Storage and Disk Drive Manufacturers**

Hitachi Global Storage

Komag

Seagate Technology

## **Research and Development**

The market for semiconductor wafer and device, data storage and disk drive equipment is characterized by rapid technological advances and product innovations. Our research and development efforts are designed to enhance our current products and develop new products to keep pace with technological developments and constantly evolving customer requirements. We devote significant resources to programs directed towards developing new and enhanced products, as well as developing new applications for existing products.

In fiscal years 2006, 2005 and 2004, our research and development expenditures were \$15.8 million, \$15.5 million and \$15.1 million, respectively, representing 15%, 13% and 17% of revenue. Research and development expenditures consist primarily of salaries, project materials, consulting fees and other costs associated with our ongoing research and development efforts.

Industry standards organizations, such as Semiconductor Equipment and Materials International and American Standards for Testing and Materials, are pivotal in defining the test methods, measurement parameters and specifications governing commercial transactions within the semiconductor industry. We maintain a significant presence on standards committees of these two organizations and other international standards organizations. We believe that our involvement with these organizations has helped to ensure that our new products conform to industry standards.

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### **Backlog**

Backlog increased to approximately \$53.1 million at April 30, 2006 from approximately \$45.0 million at April 30, 2005. This increase in backlog is primarily attributable to an increase in worldwide demand for capital equipment as a result of capacity expansion in the semiconductor wafer and device manufacturing industries. We schedule production based on firm customer commitments and anticipated orders during the planning cycle. Backlog is comprised of written purchase orders accepted from customers to whom we expect to ship the related product or provide service within the following twelve months. Customers may cancel or delay orders with limited or no penalty. We do not believe that the level of backlog is an accurate indicator of our performance in future periods.

### **Manufacturing**

Our principal manufacturing activities take place at our ISO 9001-registered facility in Westwood, Massachusetts, where semiconductor dimensional metrology systems and semiconductor optical surface inspection equipment are manufactured. Our dimensional metrology gauging products and magnetic characterization products for the data storage industry are also manufactured in the Westwood, Massachusetts facility. Our interferometric based surface metrology products and our optical metrology products are manufactured in Tucson, Arizona. Manufacturing activities consist primarily of assembling and testing components and subassemblies, which are supplied by third party vendors and then integrated into our finished products. We also manufacture specific optical components used in certain products. Many of the components and subassemblies are standard products, although certain items are made to our specification. We manufacture many of our semiconductor metrology and inspection systems in a cleanroom environment.

### **Patents and Other Intellectual Property Rights**

We rely on a combination of patent, copyright, trademark and trade secret laws and license agreements to establish and protect our proprietary rights in our products. We believe that our success depends to a large extent upon innovation, technological expertise and distribution strength. We enter into standard confidentiality agreements with our employees and consultants and seek to control access to and distribution of our proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our products or technology without authorization or to develop similar technology independently. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries.

As of June 30, 2006, we held 63 United States patents and 50 patents in foreign countries covering technology relevant to our business with remaining durations of up to 20 years. We have applied for 25 additional patents in the United States and 90 additional patents in foreign countries. We have licensed certain patents and other intellectual property to a number of companies.

### **Employees**

As of April 30, 2006, we employed a total of 410 persons. Management believes that our ongoing success depends on our continued ability to attract and retain highly skilled employees. There can be no assurance that we will be successful in attracting or retaining such personnel. None of our employees are represented by a labor union, and we have experienced no work stoppages. We consider our employee relations to be good.

### **Cyclicality of Our Business**

Our business depends in large part upon the capital expenditures of semiconductor wafer and device and data storage manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits, products utilizing integrated circuits and systems requiring data storage. The semiconductor and data storage industries are cyclical and have historically experienced periodic downturns, which have had a severe effect on the demand for capital equipment. Prior semiconductor and data storage industry downturns and construction of excess capacity by the industries have adversely affected our revenue, gross margin, net income and the market price of our common stock. In addition, the need for continued investment in research and development and extensive customer service and support capability worldwide will continue to limit our ability to reduce expenses during industry downturns.

### **Competition**

The semiconductor and data storage equipment industries are highly competitive. Competition in these industries is based primarily on technology, pricing and market penetration. We believe that we compete favorably in our markets for a Company of our size and resources. Companies that have complementary technologies and greater financial resources than we do may enter these industries and develop products that are superior to our products or achieve market acceptance. In the market for optical defect inspection equipment,



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we compete directly with Hitachi Electronics Engineering Co., Ltd., KLA-Tencor and Topcon Corporation, which have significantly greater total assets and annual revenue than we do. As discussed above, we have entered into an Amended Merger Agreement with KLA-Tencor. In the metrology area of the device industry, we have encountered, and expect to encounter in the future, competition from companies offering similar and competing technologies, some of which have significantly greater total assets and annual revenue than we do, have an existing market presence in the device industry, or both. We also expect to encounter intense competition in the areas of metrology and inspection for the magnetic data storage industry. Our competitors can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price/performance characteristics. Competitive pressures can necessitate price reductions or non-revenue generating shipments of new products to certain strategic customers for evaluation purposes, which can adversely affect our operating results. In order to remain competitive, we must maintain a high level of investment in research and development, sales, marketing and customer service. There can be no assurance that we will have sufficient resources to continue to make such investment or that we will be able to make the technological advances necessary to remain competitive.

We expect acquisitions and business combinations by our competitors and potential competitors in the metrology as well as in the defect inspection markets. The impact of this activity could:

allow our competitors to offer new products without the lengthy time delays typically associated with internal product development;

limit our access to commercially significant technologies and/or new or complementary products; and

permit our competitors to accelerate the development and commercialization of new competitive products and the marketing of existing competitive products to their larger installed bases.

Accordingly, business combinations and acquisitions by our competitors could have an adverse impact on both our market share and the pricing of our products, which could have a material adverse effect on our business.

## **Customer and Industry Concentration**

A relatively limited number of customers have historically accounted for a substantial portion of our revenue in each year. In fiscal years 2006, 2005 and 2004, sales to our top five customers in each period accounted for approximately 61%, 71% and 74% of our revenue, respectively. The loss of or any reduction in orders by any of these customers, including reductions due to market, economic or competitive conditions in the semiconductor industry or in other industries that manufacture products utilizing semiconductors, could adversely affect our business, financial condition or results of operations. In fiscal years 2006, 2005 and 2004, we derived 67%, 79% and 81% of our revenue, respectively, from customers in the semiconductor wafer industry. While we are increasing our emphasis on expanding the level of our business in the device and magnetic data storage industries, there can be no assurance that our efforts will be successful. Our ability to maintain or increase our sales levels in the future will depend in part upon our ability to obtain orders from new customers as well as the financial condition and success of our existing customers and the general economy. There can be no assurance that we will be able to increase the level of our revenue in the future or that we will be able to retain existing customers or attract new customers. In addition, due to the limited number of customers, any delay in collecting or the inability to collect our accounts receivable could have a material adverse effect on our financial results. See Notes 2 and 13 of Notes to Consolidated Financial Statements for information regarding our accounting policies and our revenues by segment.

## **Dependence on Suppliers**

Certain components and subassemblies, including certain systems controllers and robotics components, incorporated in our current systems and those under development are obtained from a single source or a limited group of suppliers. In some instances, we have not qualified a second source for these products and the partial or complete loss of certain of these sources could have an adverse effect on our results of operations and damage customer relationships. For example, finding an alternative supplier or failure of an existing single supplier to perform in a timely manner could lead to a delay in the shipment of our products. Further, a significant increase in the price of one or more of these components or failure to perform up to specification could adversely affect our results of operations.

## **Risks Associated with International Operations**

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International sales accounted for 81%, 83% and 86% of our revenue for fiscal years 2006, 2005 and 2004, respectively. See Note 13 of Notes to Consolidated Financial Statements for information regarding our revenues and long-lived assets outside the United States. We expect that international sales will continue to represent a significant percentage of revenue. Our international business may be affected by changes in demand resulting from:

fluctuations in interest and currency exchange rates;



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the investment policies of foreign countries;

changes in trade policies and/or tariff regulations; and

difficulties in obtaining U.S. export licenses.

Given that approximately 60%-70% of our revenue has historically come from Japan and the Asia-Pacific region, financial instability in certain Asian countries could materially affect our competitive position and consequently, our financial results.

### **Internet Address**

The Company's internet address is [www.ade.com](http://www.ade.com). The Company makes available, free of charge, on or through its website, its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and amendments to such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") as soon as reasonably practical after such reports are electronically filed with the SEC. The Company's website is not incorporated by reference into this Annual Report on Form 10-K.

### **ITEM 1A. RISK FACTORS**

Our business faces many risks. The risks described below may not be the only risks we face. Additional risks that we do not yet know of, or that we currently think are immaterial, may also impair our business operations or financial results. If any of the events or circumstances described in the following risks actually occurs, our business, financial condition or results of operations could suffer and the trading price of our common stock could decline. Investors should consider the following risks and the information contained under the heading "Cautionary Statement Regarding Forward Looking Statements" before deciding to invest in our common stock.

#### ***Risks relating to our business.***

#### **Our business depends in large part upon capital spending in the semiconductor wafer and device and data storage industries, which are highly cyclical.**

Our business depends in large part upon capital expenditures by semiconductor wafer and device and data storage manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits, products utilizing integrated circuits and systems requiring data storage. The semiconductor and data storage industries are cyclical and have historically experienced periodic downturns, which have had a severe effect on the demand for capital equipment. Prior semiconductor and data storage industry downturns and construction of excess capacity by the industries have adversely affected our revenue, gross margin and net income, and have also adversely affected the trading price of our common stock, and another downturn could have a similar effect in the future. In addition, the need for continued investment in research and development and extensive customer service and support capability worldwide will continue to limit our ability to reduce expenses during industry downturns.

#### **Our operating results can vary significantly from period to period due to a number of factors.**

Our operating results can vary significantly from period to period due to a number of factors, including:

economic conditions in the semiconductor wafer and device and data storage industries;

product mix of our sales;

the sales distribution channel of our sales;

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competitive pricing pressures;

our ability to design, introduce and manufacture new products on a cost effective and timely basis;

customer cancellations or rescheduled shipments;

production difficulties or the inability to obtain critical components resulting in delayed shipments; and

seasonal factors such as customers' capital budget approval cycles.

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These factors could have a material adverse effect on our results of operations. As cost of revenue includes manufacturing overhead, which is relatively constant from period to period, gross margin can vary significantly from period to period due to varying levels of production and revenue. Marketing and sales expenses can vary from period to period based on a number of factors, including mix of sales channels, geographic mix and the timing of marketing events. There can be no assurance that we will be profitable in any future period.

**Sales to foreign markets, especially Asian markets, constitute a substantial portion of our sales; therefore, our sales and results of operations could be adversely affected by downturns in economic conditions in countries outside of the United States.**

International sales accounted for 81%, 83% and 86% of our revenue for fiscal years 2006, 2005 and 2004, respectively. We expect that international sales will continue to represent a significant percentage of revenue. Our international business may be affected by changes in demand resulting from:

fluctuations in interest and currency exchange rates;

the investment policies of foreign countries;

changes in trade policies and/or tariff regulations; and

difficulties in obtaining U.S. export licenses.

Given that approximately 60%-70% of our revenue has historically come from Japan and the Asia-Pacific region, financial instability in certain Asian countries could materially affect our competitive position and, consequently, our financial results.

**The loss of any one of our major customers would likely have a material adverse effect on us.**

A relatively limited number of customers have historically accounted for a substantial portion of our revenue in each year. In fiscal years 2006, 2005 and 2004, sales to our top five customers in each period accounted for approximately 61%, 71% and 74% of our revenue, respectively. The loss of or any reduction in orders by any of these customers, including reductions due to market, economic or competitive conditions in the semiconductor industry or in other industries that manufacture products utilizing semiconductors, could adversely affect our business, financial condition and results of operations. Our ability to maintain or increase our sales levels in the future will depend in part upon our ability to obtain orders from new customers as well as the financial condition and success of our existing customers and the general economy. There can be no assurance that we will be able to increase the level of our revenue in the future or that we will be able to retain existing customers or attract new customers. In addition, due to the limited number of customers, any delay in collecting or the inability to collect our accounts receivable could have a material adverse effect on our financial results.

**We must expend a significant amount of time and resources to develop new products, and if these products do not achieve commercial acceptance, our operating results may suffer.**

We expect to spend a significant amount of time and resources on research and development of new systems and refinement of existing systems. In light of the long product development cycles inherent in our industry, these expenditures will be made well in advance of the prospect of deriving revenue from the sale of new or refined systems. Our ability to introduce and successfully market our systems is subject to a wide variety of challenges during this development cycle that could delay introduction of these systems. Due to the complexity of our systems, such challenges include overcoming design and production issues and modifying development plans to meet the needs of our customers, as well as addressing issues that arise upon installation at customer sites. If we do not achieve market acceptance of new products, our operating results will suffer.

**Because of the high cost of switching equipment vendors in our markets, it is sometimes difficult for us to win customers from our competitors even if our metrology systems are superior to theirs.**

We believe that once a semiconductor or magnetic data storage customer has selected one vendor's metrology system, the customer generally relies upon that system and, to the extent possible, subsequent generations of the same vendor's system, for the life of the application. Once a

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vendor's metrology system has been installed, a customer must often make substantial technical modifications and may experience downtime in order to switch to another vendor's metrology system. Accordingly, unless our systems offer performance or cost advantages that outweigh a customer's expense of switching to our systems, it will be difficult for us to achieve significant sales to that customer once it has selected another vendor's system for an application.

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**Our failure to protect our proprietary technology may significantly impair our competitive position and protection of our proprietary technology may be impossible or expensive.**

Our proprietary technology is important to the continued success of our business. We rely on a combination of patent, copyright, trademark and trade secret laws and license agreements to establish and protect our proprietary rights in our products. We own many United States and foreign patents covering existing and potential products and have applied for additional patents in and outside the United States. If we fail to adequately protect our intellectual property, it will be easier for our competitors to sell competing products. Any of our pending patent applications may be rejected, and we may not in the future be able to develop additional proprietary technology that is patentable. The patents we do own or that have been issued or licensed to us may not provide us with competitive advantages and may be challenged by third parties. Third parties may also develop alternative designs which work around our patents.

In addition to patent protection, we rely upon trade secret protection for our confidential and proprietary information and technology and routinely enter into standard confidentiality agreements with our employees and consultants and seek to control access to and distribution of our proprietary information. However, in the event that these agreements are breached, we may not have adequate remedies. Our confidential and proprietary information and technology might also be independently developed by or become otherwise known to third parties. Despite protective measures utilized by us, we cannot be certain that:

we will be able to protect our technology adequately;

competitors or other third parties will not be able to copy or otherwise obtain our products and or technology without our authorization or develop similar technology independently;

any of our pending patent applications will be issued;

intellectual property laws will protect our intellectual property rights; or

third parties will not assert that our products infringe patent, copyright or trade secrets of such parties.

**The laws of some foreign countries do not protect our proprietary rights to as great an extent as do the laws of the United States.**

Many U.S. companies have encountered substantial problems in protecting their proprietary rights against infringement in some foreign countries. If we fail to adequately protect our intellectual property in these countries, it would be easier for our competitors to sell competing products in those countries.

**Litigation may be necessary in order to enforce our patents, copyrights or other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement.**

In the past, we have been involved in lawsuits to enforce our intellectual property rights, and may be involved in such litigation in the future. Such litigation could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition or results of operations. Claims of infringement may result in protracted and costly litigation that could require us to pay substantial damages or have the sale of our products stopped by an injunction. Infringement claims could also cause product delays or require us to redesign our products, and these delays could result in the loss of substantial revenue. We may also be required to obtain a license from a third party or cease activities utilizing a third party's proprietary rights. We may not be able to enter into such a license or such license may not be available on commercially reasonable terms.

**Our current and potential competitors have significantly greater resources than we do, and increased competition could impair our business.**

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The semiconductor and data storage equipment industries are highly competitive. Competition in these industries is based primarily on technology, pricing and market penetration. We believe that we compete favorably in our markets for a Company of our size and resources. Companies that have complementary technologies and greater financial resources than we do may enter these industries and develop products that are superior to our products or achieve market acceptance. In the market for optical defect inspection equipment, we compete directly with companies that have significantly greater total assets and annual revenue than we do. In the metrology area of the device industry, we have encountered, and expect to encounter in the future, competition from companies offering similar and competing technologies, some of which have significantly greater total assets and annual revenue than we do, have an existing market presence in the device industry, or both. We also expect to encounter intense competition in the areas of metrology and inspection for the magnetic data storage industry. Our competitors can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price/performance characteristics. Competitive pressures can necessitate price reductions or non-revenue generating shipments of new products to certain strategic customers for evaluation purposes, which

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can adversely affect our operating results. In order to remain competitive, we must maintain a high level of investment in research and development, sales, marketing and customer service. There can be no assurance that we will have sufficient resources to continue to make such investment or that we will be able to make the technological advances necessary to remain competitive.

### **We expect acquisitions and business combinations by our competitors and potential competitors in the metrology as well as in the defect inspection markets.**

The impact of acquisitions and business combinations by our competitors could:

allow our competitors to offer new products without the lengthy time delays typically associated with internal product development;

limit our access to commercially significant technologies and/or new or complementary products; or

permit our competitors to accelerate the development and commercialization of new competitive products and the marketing of existing competitive products to their larger installed bases.

Accordingly, business combinations and acquisitions by our competitors could have an adverse impact on both our market share and the pricing of our products, which could have a material adverse effect on our business.

### **Our dependence on subcontractors and sole or limited source suppliers may prevent us from delivering an acceptable product on a timely basis and could result in disruption of our operations.**

Certain components and subassemblies, including certain systems controllers and robotics components, incorporated in our current systems and those under development are obtained from a single source or a limited group of suppliers. In some instances, we have not qualified a second source for these products and the partial or complete loss of certain of these sources could have an adverse effect on our results of operations and damage customer relationships. For example, finding an alternative supplier or failure of an existing single supplier to perform in a timely manner could lead to a delay in the shipment of our products. Further, a significant increase in the price of one or more of these components or failure to perform up to specification could adversely affect our results of operations.

### **Key personnel may be difficult to attract and retain.**

Our success depends to a large extent upon the efforts and abilities of a number of key employees and officers, particularly those with expertise in the semiconductor manufacturing and similar industrial manufacturing industries. The loss of key employees or officers such as Dr. Chris Koliopoulos, our chief executive officer, could have a material adverse effect on our business, financial condition or results of operations. We believe that our future success will depend in part on our ability to attract and retain highly skilled technical, financial, managerial and marketing personnel. We cannot be certain that we will be successful in attracting and retaining such personnel.

### **Changes in, or interpretations of, accounting principles, such as expensing of stock options, could result in unfavorable accounting charges.**

We prepare our consolidated financial statements in conformity with U.S. generally accepted accounting principles. These principles are subject to interpretation by the SEC and various bodies formed to interpret and create appropriate accounting principles. A change in these principles could have a significant effect on our reported results and may even retroactively affect previously reported transactions. In particular, as of May 1, 2006, we adopted Statement of Financial Accounting Standards No. 123 (revised 2004), Share Based Payment (SFAS 123R), which requires that the costs resulting from all share-based payment transactions be measured using a fair-value method and be recognized in the financial statements. If we do not complete the Merger, we expect the adoption of SFAS 123R to have a significant adverse effect on our reported financial results and impact the way in which we conduct our business. Please refer to the section entitled New Accounting Pronouncements for further information regarding SFAS 123R.

### **As part of our business strategy, if the Merger is not consummated, we may make or seek to make acquisitions that may be difficult to integrate, disrupt our business, dilute stockholder value or divert management attention.**

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As a part of our business strategy, if the Merger is not consummated, we may make acquisitions. Acquisitions are typically accompanied by a number of risks, including the difficulty of integrating the operations and personnel of the acquired companies, the potential disruption of our ongoing business and distraction of management, expenses related to the acquisition and potential unknown liabilities associated with acquired businesses.



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In making acquisitions, we could use substantial portions of our available cash as all or a portion of the purchase price. We could also issue additional securities as consideration for these acquisitions, which could cause significant stockholder dilution. Our acquisitions may not ultimately help us achieve our strategic goals and may pose other risks to us.

If we are not successful in completing acquisitions that we may pursue in the future, we may be required to reevaluate our strategy, and we will have incurred substantial expenses and devoted significant management time and resources in seeking to complete proposed acquisitions that will not generate benefits for us.

### ***Risks relating to the Merger***

#### **Obtaining approval from German antitrust authorities or satisfaction of other conditions may delay or prevent completion of the Merger and these delays may cause additional costs and distractions.**

German antitrust authorities have notified KLA-Tencor that they have begun a Phase II investigation of the Merger and, as a result, the closing of the Merger may not occur until approval is obtained from such authorities. Approval from German authorities may not be granted or may be conditioned upon divestitures relating to the divisions, operations or assets of KLA-Tencor or ADE. In addition, KLA-Tencor has the right, under the Amended Merger Agreement, not to make any divestitures that, individually or in the aggregate, would have an impact that is both material in comparison to, and adverse to, the benefits that would be reasonably expected to accrue to KLA-Tencor from the Merger. As a result, any divestitures or other conditions proposed by German authorities may jeopardize, delay or preclude completion of the Merger or may reduce the anticipated benefits of the Merger. We will also incur additional expenses relating to the Merger during this delay that may be significant. In addition, the uncertainty resulting from any delay in closing could erode customer and employee confidence in ADE and divert our management's focus and resources from other operational matters.

#### **Provisions of the Amended Merger Agreement may deter alternative business combinations and could negatively impact the value of our common stock if the Amended Merger Agreement is terminated in certain circumstances.**

Restrictions in the Amended Merger Agreement on solicitation generally prohibit us from soliciting any acquisition proposal or offer for a merger or business combination with any other party, including a proposal that might be advantageous to our stockholders when compared to the terms and conditions of the Merger. In addition, if the Merger is not completed because KLA-Tencor terminates the Amended Merger Agreement because our board of directors withdraws its support of the Merger or we terminate the Amended Merger Agreement to accept a superior acquisition proposal made by a third party, we may be required to pay KLA-Tencor a termination fee of \$15 million. These provisions may deter third parties from proposing or pursuing alternative business combinations that might result in greater value to our stockholders than the Merger. In the event the Merger is terminated by KLA-Tencor and/or us in circumstances that obligate us to pay the termination fee to KLA-Tencor, the value of our common stock may be reduced.

#### **The Company, its directors, KLA-Tencor and South are involved in pending litigation with respect to the Merger, the result of which is uncertain.**

As described in more detail in "Legal Proceedings" under Part I, Item 3 of this Annual Report on Form 10-K, a purported stockholder of the Company has filed original and amended complaints against the Company, its directors, KLA-Tencor and South. We have entered into a Memorandum of Understanding agreeing in principle to settle all claims brought on behalf of the putative class, but this settlement is still subject to Court approval and entry of a final order and judgment. At this time, we cannot predict the ultimate outcome of this matter definitively, nor can we determine how the various claims asserted in this action may affect our results of operations, our financial condition or the Merger.

### ***Risks relating to our stock price.***

#### **Our stock price is volatile due to numerous factors, including unexpected operating results, the state of the markets in which we compete and other factors.**

The trading price of our common stock has fluctuated widely in recent years. Consequently, the current trading price of our common stock may not be indicative of future trading prices, and we may be unable to sustain or increase the value of an investment in our common stock.

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Demand for our products is difficult to predict, due in part to the cyclical nature of the semiconductor and magnetic data storage industries that we service, and if realized demand does not meet our expectations, our results of operations in any particular period may be adversely affected. A significant percentage of our expenses are relatively fixed and based in part on expectations of future sales. The inability to adjust spending quickly enough to compensate for any shortfall would magnify the adverse impact of a shortfall in net sales on our results of operations. Factors that could cause fluctuations in our revenues include:

cyclical downturns in the semiconductor and magnetic data storage industries;

wafer pricing and wafer demand;

the timing of the receipt of orders from customers or cancellations from customers;

shipment delays;

acceptance of new products;

disruption in sources of supply;

mix of products sold and the geographic mix of sales;

competitive pricing;

production capacity constraints; and

specific features requested by customers.

As a result of the factors discussed above, it is possible that we will in the future experience quarterly or annual fluctuations and that, in one or more future quarters or years, our operating results will fall below the expectations of public market analysts or investors. In any such event, the price of our common stock could decline significantly.

### **We do not anticipate declaring any cash dividends on our common stock.**

We have never declared or paid cash dividends on our common stock and do not plan to pay any cash dividends in the near future. Our current policy is to retain all funds and earnings for use in the operation and expansion of our business.

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None.

**ITEM 2. PROPERTIES**

Information regarding our principal properties at April 30, 2006 is set forth below:

<b>Location</b>	<b>Principal Use</b>	<b>Business Segment</b>	<b>Sq. Footage</b>	<b>Ownership</b>
Westwood, MA	Corporate Headquarters, Manufacturing, Engineering, Service, Sales and Marketing	Semiconductor Systems Group and ADE Technologies	118,000	Leased
Tucson, AZ	Manufacturing, Engineering, Service, Sales and Marketing	ADE Phase Shift	60,000	Owned
Vancouver, WA	Sales, Service and Engineering	Semiconductor Systems Group	12,800	Leased
Milpitas, CA	Sales and Service	Semiconductor Systems Group and ADE Technologies	9,300	Leased

We also lease space for sales and service support offices in v