INTEVAC INC
Form 10-K/A
July 15, 2009

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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 1
TO

FORM 10-K

(Mark One)

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2008

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number 0-26946
INTEVAC, INC.
(Exact name of registrant as specified in its charter)

Delaware	**94-3125814**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

3560 Bassett Street
Santa Clara, California 95054
(Address of principal executive office, including Zip Code)

Registrant s telephone number, including area code: (408) 986-9888

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock ($0.001 par value)	The Nasdaq Stock Market LLC (NASDAQ Global Select)

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. o Yes þ 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. o Yes þ 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. þ Yes o No

Indicate by a 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. [þ]

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

Large accelerated filer o Accelerated filer þ Non-accelerated filer o Smaller reporting company o (Do not check if a smaller reporting company)

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

The aggregate market value of voting stock held by non-affiliates of the Registrant, as of June 28, 2008 was approximately $138,017,121 (based on the closing price for shares of the Registrant s Common Stock as reported by the Nasdaq Stock Market for the last trading day prior to that date). Shares of Common Stock held by each executive officer, director, and holder of 5% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On March 4, 2009, 21,925,526 shares of the Registrant s Common Stock, $0.001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE.

Portions of the Registrant s Proxy Statement for the 2009 Annual Meeting of Stockholders are incorporated by reference into Part III. Such proxy statement will be filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

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EXPLANATORY NOTE

We are providing this Amendment No. 1 (the Amended Report) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed with the Securities and Exchange Commission on March 4, 2009 (the Original Report), in response to a comment provided by the Securities and Exchange Commission in its letter dated May 29, 2009. This amendment is being filed solely to amend the certifications by our Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 to correct a typographical error whereby the date of the certification was inadvertently omitted. This amendment includes an updated consent of the Independent Registered Public Accounting Firm as Exhibit 23.1 hereto and new certifications by our Principal Executive Officer and Principal Financial Officer pursuant to Sections 302 and 906 of the Sarbanes-Oxley Act of 2002 as Exhibits 31.1, 31.2, and 32.1 hereto.

Except as described above, we have not modified or updated other disclosures contained in the Original Report. Accordingly, this Amended Report, with the exception of the foregoing, does not reflect events occurring after the date of filing of the Original Report or modify or update those disclosures affected by subsequent events. Consequently, all other information not affected by the corrections described above is unchanged and reflects the disclosures made at the date of the filing of the Original Report.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain information in this Annual Report on Form 10-K (report or Form 10-K) of Intevac, Inc. and its subsidiaries (Intevac or the Company), including Management s Discussion and Analysis of Financial Condition and Results of Operations in Item 7, is forward-looking in nature. All statements in this report, including those made by the management of Intevac, other than statements of historical fact, are forward-looking statements. Examples of forward-looking statements include statements regarding Intevac s future financial results, operating results, cash flows and cash deployment strategies, business strategies, costs, products, working capital, competitive positions, management s plans and objectives for future operations, research and development, acquisitions and joint ventures, growth opportunities, customer contracts, investments, liquidity, declaration of dividends, and legal proceedings, as well as market conditions and industry trends. These forward-looking statements are based on management s estimates, projections and assumptions as of the date hereof and include the assumptions that underlie such statements. Forward-looking statements may contain words such as may, will, should, could, would, expect, anticipate, believe, estimate, predict, potential and continue, the negative of these terms, or other comparable terminology. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including those discussed in Item 1A, Risk Factors, below and elsewhere in this report. Other risks and uncertainties may be disclosed in Intevac s prior Securities and Exchange Commission (SEC) filings. These and many other factors could affect Intevac s future financial condition and operating results and could cause actual results to differ materially from expectations based on forward-looking statements made in this report or elsewhere by Intevac or on its behalf. Intevac undertakes no obligation to revise or update any forward-looking statements.

The following information should be read in conjunction with the Consolidated Financial Statements and the accompanying Notes to Consolidated Financial Statements included in this report.

PART I

Item 1. *Business*

Overview

Intevac s business consists of two reportable segments:

Equipment: Intevac is a leader in the design, manufacture and marketing of high-productivity magnetic media sputtering equipment to the hard disk drive industry and offers advanced etch technology systems to the semiconductor industry.

Intevac Photonics: Intevac is a leader in the development and manufacture of leading edge, high-sensitivity imaging products and vision systems, as well as table-top and portable Raman instruments. Markets addressed include military, law enforcement, industrial, physical science and life science.

Intevac was incorporated in October 1990 in California and completed a leveraged buyout of a number of divisions of Varian Associates in February 1991. Intevac was reincorporated in Delaware in 2007.

Equipment Segment

Hard Disk Drive Equipment Market

Intevac designs, manufactures, markets and services complex capital equipment used to deposit thin films of material onto magnetic disks that are used in hard disk drives, and also equipment to lubricate these disks. Disk and disk drive manufacturers produce magnetic disks in a sophisticated manufacturing process involving many steps, including plating, annealing, polishing, texturing, sputtering and lubrication. Intevac believes its systems represent approximately 60% of the installed capacity of disk sputtering systems worldwide. Intevac s systems are used by manufacturers such as Fuji Electric, Hitachi Global Storage Technologies, Seagate Technology and Western Digital.

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Hard disk drives are a primary storage medium for digital data and are used in products and applications such as personal computers, enterprise data storage, personal audio and video players and video game platforms. Intevac believes that hard disk drive shipments will continue to grow over time, driven by growth in digital storage, by new and emerging applications, and by the proliferation of personal computers into emerging markets in Asia and Eastern Europe. Continued growth in hard disk drive shipments is a key factor in determining demand for magnetic disks used in hard disk drives.

Demand for Intevac s disk manufacturing products is driven by a number of factors, including unit demand for hard disk drives, market share, the average number of magnetic disks used in each hard drive, utilization and productivity of disk manufacturers installed base of magnetic disk manufacturing equipment and obsolescence of the installed base. The introduction of perpendicular recording technology by disk manufacturers had a significant impact on the equipment market, and increased demand both for new equipment, such as Intevac s 200 Lean® disk sputtering system, and for technology upgrades to the installed base of Intevac s legacy MDP-250 systems. However in 2008, shipments of both new systems and technology upgrades declined relative to 2007 and 2006.

Hard Disk Drive Equipment Products

Disk Sputtering Systems

In the first quarter of 2008, the first 200 Lean Gen II, Intevac s latest generation disk sputtering system was shipped. It is designed to deliver 25% higher throughput than the original 200 Lean. This increase in throughput enables Intevac customers to manufacture more magnetic disks per square foot of factory floor space, further reducing overall cost per disk.

In late 2003, first generation 200 Lean systems began shipping and by the end of 2008, the installed base totaled more than 120 systems. Intevac believes approximately 90% of these systems are used in production with the balance used for research and development. The 200 Lean was designed to provide enhanced capabilities relative to Intevac s MDP-250 system and lower overall cost of ownership for disk manufacturers. The 200 Lean provides higher disk throughput from a small footprint, which enables manufacturers to produce more disks per square-foot of factory floor space. The 200 Lean s modular architecture allows Intevac s customers to incorporate any number of disk manufacturing process steps required by their evolving technology roadmaps. Most of the 200 Lean systems shipped are capable of performing up to 20 process steps compared to the 12 process step maximum on the original MDP-250. The 200 Lean also allows rapid reconfiguration to accommodate varying process recipes, disk sizes and disk materials.

From 1994 through 2005, Intevac shipped approximately 110 MDP-250 s. As of the end of 2008, Intevac believes that approximately 65% of these systems are still being used for production. The balance of these systems are either being used by customers for research and development, in storage or have been retired from service.

Disk Lubrication Systems

Disk lubrication is the manufacturing step that follows deposition of thin films. During lubrication, a microscopic layer of lubricant is applied to the disk s surface to improve durability and reduce surface friction between the disk and the read/write head assembly.

The Intevac DLS-100 disk lubrication system provides Intevac s customers with a lubrication process by dipping disks into a lubricant/solvent mixture. Intevac has been manufacturing dip lubrication systems similar to the DLS-100 since 1996.

The Intevac AccuLuber[tm] disk lubrication system lubricates disks by depositing a thin film of lubricant on the disk while it is under vacuum. This eliminates the use of solvents during the lubrication process, which are environmentally hazardous and are expensive to procure, store and dispose.

Non-Systems Business

Intevac also provides installation, maintenance and repair services, technology upgrades, spare parts and consumables to Intevac s system customers. An increased level of technology upgrades caused non-systems

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business to increase significantly in 2006 and 2007, both in absolute terms and as a percentage of Equipment revenues. Non-system business declined in 2008, but represented nearly 45% of Equipment revenues for the year.

Semiconductor Equipment Market

A wide range of manufacturing equipment is used to fabricate semiconductor chips including: atomic layer deposition (ALD), chemical vapor deposition (CVD), physical vapor deposition (PVD), electrochemical plating (ECP), etch, i implantation, rapid thermal processing (RTP), chemical mechanical planarization (CMP), wafer wet cleaning, wafer metrology and inspection, and systems that etch, measure and inspect circuit patterns on masks used in the photolithography process.

Most chips are built on a silicon wafer base and include a variety of circuit components, such as transistors and other devices, that are connected by multiple layers of wiring (interconnects). To build a chip, the transistors, capacitors and other circuit components are first created on the surface of the wafer by performing a series of processes to deposit and selectively remove successive film layers. Similar processes are then used to build the layers of wiring structures on the wafer.

Most chips are currently fabricated using 65 nanometer (nm) and larger linewidth dimensions. Over time, Intevac believes that 45 nm, and then 32 nm, are likely to be the next line width nodes to be implemented as manufacturers work to squeeze more and more components onto each chip. As the density of the circuit components increases to enable greater computing power in the same or smaller area, the complexity of building the chip also increases, necessitating more process steps to form smaller structures and more intricate wiring schemes.

Over time, the semiconductor industry has also migrated to increasingly larger wafers to build chips. The predominant wafer size used for volume production has been 200 millimeter (mm), or eight-inch, wafers, but a substantial number of advanced fabrications now use 300mm, or 12-inch, wafers to gain the economic advantages of a larger surface area. The majority of new fabrication capacity is 300mm. The industry is beginning to close some 200mm fabs for economic reasons.

Intevac is utilizing its expertise in the design, manufacturing, and marketing of complex manufacturing equipment and the prior experience of Intevac s management team in the semiconductor manufacturing equipment business to develop products for the semiconductor manufacturing market, which Intevac believes is substantially larger than the hard disk drive equipment market that Intevac currently serves.

Semiconductor Manufacturing Products

In 2007, Intevac announced its new dielectric etch semiconductor manufacturing system, the Lean Etch^{tm}. The Lean Etch is a 300 mm system designed to address the need for significant productivity improvement and provide enabling etch technology at 45 nanometer nodes and below.

During 2008, Intevac entered into an alliance with TES Co., Ltd. (TES), a Korean equipment company. TES has exclusive rights to market the Lean Etch in Korea and China, and Intevac has exclusive rights to market TES CVD equipment to the rest of the world. In the future, TES will be responsible for final assembly and test of Lean Etch systems for the Korean and Chinese markets.

During 2009, Intevac plans to deliver evaluation systems to customers through our alliance with TES. Intevac does not expect to recognize any revenue from Lean Etch shipments in 2009.

Other Markets and Products

Intevac s 200 Lean platform may be suitable to certain non-magnetic thin film applications such as, optical coatings, photovoltaic and wear-resistant coatings. Intevac is currently working with a customer on one such application and expects to deliver a system in 2009.

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Intevac Photonics Segment

Intevac Photonics Market

Intevac develops, manufactures and sells compact, cost-effective, high-sensitivity digital-optical products for the capture and display of low-light images and the optical analysis of materials. Intevac provides sensors, cameras and systems for government applications such as night vision, long-range target identification and simulation training, and for commercial applications in the inspection, medical, scientific and security industries. The majority of Intevac s imaging revenue has been derived from contracts related to the development of electro-optical sensors and cameras, funded by the U.S. Government, its agencies and contractors. However, the percentage of Intevac Photonics revenue derived from product sales grew from 15% in 2006 to 29% in 2007 and 37% in 2008 and is expected to continue to increase in 2009.

Intevac Photonics Products

Night Vision Systems Since 1995, the U.S. military has funded the development of digital night vision sensor technology at Intevac, based on Intevac s patented Electron Bombarded Active Pixel Sensor (EBAPS) design. The EBAPS design utilizes CMOS technology to produce a compact, light-weight, low-light level digital sensor, which provides the U.S. military both size and weight advantages, as well as the advantages of digital imaging, compared to currently deployed analog Generation-III night vision tubes. In 2007, Intevac entered its first pilot production of a digital night vision camera module for use in a rifle sight system by a major NATO defense contractor and has been conducting low-volume manufacturing deliveries of this camera module throughout 2008. At the conclusion of 2008, Intevac received its first U.S. military production order for a digital camera module for an avionics application and began low-rate production deliveries, which will extend throughout 2009. In 2008, Intevac also completed the development of a next-generation, digital night vision sensor, which was funded by multiple branches of the U.S. military. Field tests with the U.S. Army in late 2008 demonstrated that this sensor is successfully meeting the performance requirements of the U.S military. Several U.S. military applications of this next-generation sensor are already in development.

The U.S. military is also funding development of a compact, head-mounted digital imaging system, or Digital Enhanced Night Vision Goggle (DENVG). DENVG integrates a visible imager, a thermal imager and a video display. This approach allows low-light level and thermal imagery to be viewed individually, or to be overlaid (digitally fused), and also enables connectivity to a wireless network for distribution of the imagery and other information. The U.S. Army plans to begin production of this type of system in 2012. In 2007, Intevac completed joint development, with DRS Technologies, Inc. (DRS), of a prototype DENVG night vision goggle for the U.S Army. The prototype used Intevac Photonics digital night vision sensor in combination with a DRS thermal imaging sensor. During 2008, development of an enhanced-performance version of DENVG was conducted, which employed Intevac Photonics new next-generation, digital night vision sensor. Prototype deliveries and U.S. Army field testing of this enhanced-performance DENVG are expected in 2009. In 2008, Intevac also launched development of a digital night vision system product called NightPort™, which combines its digital sensor technology with its near-eye display technology obtained with the acquisition of Creative Display Systems, LLC (CDS) in late 2007. NightPort is a compact, monocular system that provides full digital night vision viewing and recording capabilities and is designed as a direct replacement for legacy night vision goggles for both military and commercial applications.

Cameras for Long-Range Target Identification (LIVAR) Current long-range military nighttime surveillance systems are based on expensive thermal imaging camera systems. These systems are relatively large, which is a disadvantage for airborne and portable applications. Accordingly, there is a need for a cost-effective, compact, long-range imaging solution that identifies targets at a distance greater than an adversary s detection range capability. Intevac Photonics Laser Illuminated Viewing and Ranging (LIVAR®) camera enables the development of such systems which can

identify targets at distances of up to twenty kilometers. Presently, Intevac Photonics LIVAR camera is being incorporated into U.S. military programs that deploy long-range target identification in both of these applications. During 2008, Intevac delivered pre-production LIVAR cameras for both land-based and airborne applications. At the conclusion of 2008, Intevac received an initial low-level production order for the LIVAR

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camera for an airborne application. Intevac expects follow-on production orders and the commencement of production deliveries for this application during 2009.

Intensified Photodiodes Intevac has developed, under a number of research and development contracts, intensified photodiode technology that enables single photon detection at extremely high data rates, which is designed for use in target identification and other military applications.

Near-Eye Display Systems Intevac specializes in high-performance, micro-display products for near-eye, portable viewing of video in military and commercial markets. Intevac s eyeglass-mounted display systems provide high definition and a wide field-of-view in miniaturized light-weight and portable designs.

Commercial Low-Light Cameras Intevac Photonics MicroVista® product line of commercial low-light CMOS cameras provides high sensitivity in the ultraviolet, visible, or near infrared regions of the spectra by using our proprietary fabrication technology in back-thinning CMOS sensors. MicroVista® s compact and light-weight camera design makes it ideally suitable for applications in industrial inspection, bio-medical, and scientific markets. Intevac also provides a high-sensitivity near-infrared MOSIR® camera that is well-suited for scientific spectroscopy applications where high signal-to-noise is achieved through Intevac s electron-bombarded sensor design.

Raman Materials Identification Instruments Raman spectrometer systems are used to identify the chemical composition of solid materials, powders and liquids by illuminating the sample with a laser and measuring the characteristic spectrum of light scattered from the tested sample. Raman spectroscopy is well suited to applications such as hazmat, forensics, homeland security, geology, gemology, medical, pharmaceutical and industrial quality assurance. Intevac offers a line of bench-top and portable Raman spectrometers developed by DeltaNu®, a division of Intevac Photonics. These instruments enable real-time, non-destructive identification of liquids and solids in the laboratory as well as in the field. Products include the Advantage™ series of low-cost, high-performance bench-top spectrometers, the Inspector™ series of handheld field analysis spectrometers, ExamineR™, a unique modular Raman microscopy system for applications that require precise spectral characterization, the ReporteR™, a palm-sized spectrometer for rapid material identification in the field, and near-infrared Raman instruments which incorporate Intevac s core technology.

Backlog

Intevac s backlog of orders at December 31, 2008 was $20.2 million, as compared to $34.2 million at December 31, 2007. Backlog at December 31, 2008 consisted of $11.4 million of Equipment backlog and $8.8 million of Intevac Photonics backlog. Backlog at December 31, 2007 consisted of $28.4 million of Equipment backlog and $5.8 million of Intevac Photonics backlog. The decrease in Equipment backlog was primarily the result of decreased orders for 200 Lean disk sputtering systems and upgrades. Backlog at December 31, 2008 includes one 200 Lean system for a non-magnetic media application, as compared to two 200 Lean systems in backlog at December 31, 2007. Backlog includes only customer orders with scheduled delivery dates.

Customer Concentration

Historically, a significant portion of Intevac s revenue in any particular period has been attributable to sales to a limited number of customers. In 2008 sales to Seagate and Hitachi Global Storage Technologies, each accounted for more than 10% of Intevac s revenues. In 2007 and 2006 sales to Seagate, Matsubo - Intevac s Japanese distributor, Hitachi Global Storage Technologies, and Fuji Electric each accounted for more than 10% of Intevac s revenues. In the aggregate sales to these customers accounted for 80%, 90% and 93% of revenues in 2008, 2007 and 2006, respectively. Intevac expects that sales of Intevac s products to relatively few customers will continue to account for a high percentage of Intevac s revenues in the foreseeable future.

Foreign sales accounted for 69% of revenue in 2008, 82% of revenue in 2007, and 90% of revenue in 2006. The majority of Intevac s foreign sales are to companies in Asia or to U.S. companies for use in their Asian manufacturing or development operations. Intevac anticipates that sales to these international customers will continue to be a significant portion of Intevac s Equipment revenues. Intevac s disk sputtering equipment customers include magnetic disk manufacturers, such as Fuji Electric, and vertically integrated hard disk drive manufacturers,

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such as Hitachi Global Storage Technology and Seagate. Intevac s customers manufacturing facilities are primarily located in California, China, Japan, Malaysia and Singapore.

Competition

The principal competitive factors affecting the markets for Intevac Equipment products include price, product performance and functionality, ease of integration, customer support and service, reputation and reliability. Intevac has historically experienced intense worldwide competition for magnetic disk sputtering equipment from companies that have sold substantial numbers of systems worldwide, including Anelva Corporation. In addition, Intevac is attempting to enter the semiconductor equipment market, and Intevac faces competition from large established competitors including Applied Materials, LAM Research and Tokyo Electron, Ltd. These competitors all have substantially greater financial, technical, marketing, manufacturing and other resources as compared to Intevac. Furthermore, any of Intevac s competitors may develop enhancements to, or future generations of, competitive products that offer superior price or performance features. In addition, new competitors with enhanced products may enter the markets that Intevac currently serves.

The principal competitive factors affecting Intevac Photonics products include price, extreme low light level detection performance, power consumption, resolution, size, ease of integration, reliability, reputation and customer support and service. Intevac faces substantial competition for Intevac Photonics products, many with substantially greater resources and brand recognition. In the military market, ITT Industries, Inc. Corporation is a large and well-established defense contractor and is a primary U.S. manufacturer of image intensifier tubes used in Generation-III night vision devices and their derivative products. Intevac s digital night vision sensors, cameras and systems are intended to displace Generation-III night vision based products. Intevac expects that ITT, BAE and other companies will develop digital night vision products and aggressively promote their sales. Furthermore, Intevac s LIVAR target identification sensors and cameras face competition from CMC Electronics, DRS, FLIR Systems and Raytheon, established companies that manufacture cooled infrared sensors and cameras which are presently used in long-range target identification systems. Within the near-eye display market, Intevac also faces competition from Rockwell-Collins, Vuzix and Oasys, each of which can offer cost-competitive products. In the commercial markets, companies such as Andor, Basler, Dalsa, E2V, Goodrich, Hamamatsu, Texas Instruments and Roper offer competitive sensor and camera products, and companies such as Ahura, B&W Tek, Horiba Jobin Yvon, InPhotonics, Ocean Optics, Renishaw and Smiths Detection offer competitive Raman spectrometer products.

Marketing and Sales

Equipment sales are made through Intevac s direct sales force, with the exception of in Japan and Malaysia, where Intevac sell its products through a distributor, Matsubo. Sales of Intevac s Lean Etch system will be made by TES, Intevac s alliance partner, in Korea and China. The selling process for Intevac s Equipment products is multi-level and long-term, involving individuals from marketing, engineering, operations, customer service and senior management. The process involves making sample disks or wafers for the prospective customer and responding to their needs for moderate levels of machine customization. Customers often require a significant number of product presentations and demonstrations before making a purchasing decision.

Installing and integrating new equipment requires a substantial investment by a customer. Sales of Intevac s systems depend, in significant part, upon the decision of a prospective customer to replace obsolete equipment or to increase manufacturing capacity by upgrading or expanding existing manufacturing facilities or by constructing new manufacturing facilities, all of which typically involve a significant capital commitment. After making a decision to select Intevac s equipment, Intevac s customers typically purchase one or more engineering systems to develop and qualify their production process prior to ordering and taking delivery of multiple production systems. Accordingly, Intevac s systems have a lengthy sales cycle, during which Intevac may expend substantial funds and management

time and effort with no assurance that a sale will result.

The production of large complex systems requires Intevac to make significant investments in inventory both to fulfill customer orders and to maintain adequate supplies of spare parts to service previously shipped systems. In some cases Intevac manufactures subsystems and/or complete systems prior to receipt of a customer order to smooth Intevac s production flow and/or reduce lead time.

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Intevac maintains inventories of spare parts in California, Singapore and China to support its customers. Intevac often requires its customers to pay for systems in three installments, with a portion of the system price billed upon receipt of an order, a portion of the price billed upon shipment, and the balance of the price and any sales tax due upon completing installation and acceptance of the system at the customer s factory. All customer product payments are recorded as customer advances, which are released into revenue in accordance with Intevac s revenue recognition policy.

Intevac provides process and applications support, customer training, installation, start-up assistance and emergency service support to Intevac s Equipment customers. Intevac conducts training classes for Intevac s customers process engineers, machine operators and machine service personnel. Additional training is also given to Intevac s customers during equipment installation. Intevac has field offices in Singapore, China, Korea, Malaysia and Japan to support Intevac s customers in Asia. Intevac generally adds additional support centers as necessary to maintain close proximity to Intevac s customers factories as they deploy Intevac s systems.

Warranty for Intevac s Equipment typically ranges between 12 and 24 months from customer acceptance. During this warranty period any necessary non-consumable parts are supplied and installed without charge. Intevac s employees provide field service support in the United States, Singapore, Malaysia, China and Japan. In Japan, field service support is also supplemented by Intevac s distributor, Matsubo.

Sales of Intevac Photonics products for military applications are primarily made to the end user through Intevac s direct sales force. Intevac sells to leading defense contractors such as Boeing, Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon, DRS Technologies, BAE and Sagem.

Intevac is subject to long sales cycles in the Photonics segment because many of Intevac s products, such as Intevac s night vision systems, typically must be designed into Intevac s customers products, which are often complex and state-of-the-art. These development cycles are often multi-year, and Intevac s sales are contingent on Intevac s customer successfully integrating Intevac s product into its product, completing development of its product and then obtaining production orders for its product. Sales of these products are also often dependent on ongoing funding of defense programs by the U.S. government and its allies. Additionally, sales to international customers are contingent on issuance of export licenses by the U.S. government.

Sales of Intevac Photonics commercial products are made through a combination of direct sales, system integrators, distributors and value added resellers and can also be subject to long sales cycles.

Intevac Photonics generally invoices its research and development customers either as costs are incurred, or as program milestones are achieved, depending upon the particular contract terms. As a government contractor, Intevac invoices customers using estimated annual rates approved by the Defense Contracts Audit Agency (DCAA).

Research and Development and Intellectual Property

Intevac s long-term growth strategy requires continued development of new products. Intevac works closely with Intevac s global customers to design products that meet their planned technical and production requirements. Product development and engineering organizations are located primarily in the United States and Singapore.

Intevac invested $35.1 million (31.8% of net revenues) in fiscal 2008, $40.1 million (18.6% of net revenues) in fiscal 2007, and $30.0 million (11.6% of net revenues) in fiscal 2006 for product development and engineering programs to create new products and to improve existing technologies and products. Intevac has spent an average of 16.6% of net sales on product development and engineering over the last five years.

Intevac s competitive position significantly depends on Intevac s research, development, engineering, manufacturing and marketing capabilities, and not just on Intevac s patent position. However, protection of Intevac s technological assets by obtaining and enforcing intellectual property rights, including patents, is important. Therefore, Intevac s practice is to file patent applications in the United States and other countries for inventions that Intevac considers important. Intevac has a substantial number of patents in the United States and other countries, and additional applications are pending for new inventions. Although Intevac does not consider Intevac s business materially dependent upon any one patent, the rights of Intevac and the products made and sold under

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Intevac s patents along with other intellectual property, including trademarks, know-how, trade secrets and copyrights, taken as a whole, are a significant element of Intevac s business.

Intevac enters into patent and technology licensing agreements with other companies when management determines that it is in Intevac s best interest to do so. Intevac pays royalties under existing patent license agreements for use, in several of Intevac s products, of certain patented technologies. Intevac also receives, from time to time, royalties from licenses granted to third parties. Royalties received from or paid to third parties have not been material to Intevac s consolidated results of operations.

In the normal course of business, Intevac periodically receives and makes inquiries regarding possible patent infringement. In dealing with such inquiries, it may be necessary or useful for us to obtain or grant licenses or other rights. However, there can be no assurance that such licenses or rights will be available to us on commercially reasonable terms, or at all. If Intevac is not able to resolve or settle claims, obtain necessary licenses and/or successfully prosecute or defend Intevac s position, Intevac s business, financial condition and results of operations could be materially and adversely affected.

Manufacturing

Intevac manufactures its Equipment products at its facilities in California and Singapore. Intevac s Equipment manufacturing operations include electromechanical assembly, mechanical and vacuum assembly, fabrication of sputter sources, and system assembly, alignment and testing. Intevac makes extensive use of the local supplier infrastructure serving the semiconductor equipment business. Intevac purchases vacuum pumps, valves, instrumentation and fittings, power supplies, printed wiring board assemblies, computers and control circuitry, and custom mechanical parts made by forging, machining and welding. Intevac also has a small fabrication center that supports Intevac s engineering departments and makes some of the machined parts used in Intevac s products.

Intevac Photonics products are manufactured at Intevac s facilities in California and Wyoming. Intevac Photonics manufactures advanced photo-cathodes and sensors, lasers, cameras, integrated camera systems, compact Raman spectrometry instruments and near-eye display systems using advanced manufacturing techniques and equipment. Intevac s operations include vacuum, electromechanical and optical system assembly. Intevac uses the supplier infrastructure serving the semiconductor, camera and optics manufacturing industries. In manufacturing Intevac s sensors, Intevac purchases wafers, components, processing supplies and chemicals. In manufacturing Intevac s camera systems and near-eye displays, Intevac purchases printed circuit boards, electromechanical components and assemblies, mechanical components and enclosures, optical components and computers.

Employees

At December 31, 2008, Intevac had 394 employees, including 6 contract employees of which 133 were in research and development, 164 in operations, and 97 in administration, customer support and marketing. Of the 394 employees, 247 were in the Equipment segment, 103 were in the Intevac Photonics segment, and 44 were in Corporate.

Compliance with Environmental Regulations

Intevac is subject to a variety of governmental regulations relating to the use, storage, discharge, handling, emission, generation, manufacture, treatment and disposal of toxic or otherwise hazardous substances, chemicals, materials or waste. Intevac treats the cost of complying with government regulations and operating a safe workplace as a normal cost of business and allocates the cost of these activities to all functions, except where the cost can be isolated and charged to a specific function. The environmental standards and regulations promulgated by government agencies in California, Wyoming and Singapore are rigorous and set a high standard of compliance. Intevac believes its costs of

compliance with these regulations and standards are comparable to other companies operating similar facilities in these jurisdictions.

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Executive Officers of the Registrant

Certain information about our executive officers as of March 4, 2009 is listed below:

Name	Age	Position
Executive Officers:		
Norman H. Pond	70	Chairman of the Board
Kevin Fairbairn	55	President and Chief Executive Officer
Jeffrey Andreson	47	Vice President, Finance and Administration, Chief Financial Officer, Treasurer and Secretary
Michael Russak	62	Executive Vice President of Business Development, Equipment Products
Michael Barnes	50	Vice President and Chief Technical Officer
Kimberly Burk	43	Vice President, Human Resources
Joseph Pietras	54	Vice President and General Manager, Intevac Photonics
Other Key Officers:		
Verle Aebi	54	Chief Technology Officer, Intevac Photonics
James Birt	44	Vice President, Customer Support, Equipment Products
Terry Bluck	49	Vice President, Technology, Equipment Products
Jerry Carollo	56	Vice President and General Manager, Intevac Vision Systems
Keith Carron	50	Vice President and General Manager, DeltaNu
Timothy Justyn	46	Vice President of Operations, Intevac Photonics
Dave Kelly	46	Vice President, Engineering, Intevac Photonics
Ralph Kerns	62	Vice President, Business Development, Equipment Products

Mr. Pond is a founder of Intevac and has served as Chairman of the Board since February 1991. Mr. Pond served as President and Chief Executive Officer from February 1991 until July 2000 and again from September 2001 through January 2002. Mr. Pond holds a BS in physics from the University of Missouri at Rolla and an MS in physics from the University of California at Los Angeles.

Mr. Fairbairn joined Intevac as President and Chief Executive Officer in January 2002 and was appointed a director in February 2002. Before joining Intevac, Mr. Fairbairn was employed by Applied Materials from July 1985 to January 2002, most recently as Vice President and General Manager of the Conductor Etch Organization with responsibility for the Silicon and Metal Etch Divisions. From 1996 to 1999, Mr. Fairbairn was General Manager of Applied Materials Plasma Enhanced Chemical Vapor Deposition Business Unit and from 1993 to 1996, he was General Manager of Applied Materials Plasma Silane CVD Product Business Unit. Mr. Fairbairn holds an MA in engineering sciences from Cambridge University.

Mr. Andreson joined Intevac in June 2007 and has served as Vice President, Finance and Administration, Chief Financial Officer, Treasurer and Secretary since August 2007. Before joining Intevac Mr. Andreson served as managing director and controller of Applied Materials, Inc. s Global Services product group. Since joining Applied Materials in 1995, Mr. Andreson held a number of senior financial positions, including managing director, Global Financial Planning and Analysis; Controller, Metron subsidiary; controller, North American Sales and Service; and Controller, Volume Manufacturing. From 1989 through 1995, Mr. Andreson held various roles at Measurex Corporation. Mr. Andreson holds an MBA from Santa Clara University and a BS in Finance from San Jose State

University.

Dr. Russak joined Intevac in July 2008 as Executive Vice President of Business Development, Equipment Products. Before joining Intevac Dr. Russak served as President and Chief Technical Officer of Komag from 2000 to 2007. From 1993 to 2000, Dr. Russak served as Vice President of Research and Development at HMT Technology. Previously, Dr. Russak held management positions in the Research Division of IBM Corporation. Prior to IBM,

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Dr. Russak worked for Grumman Aerospace Corporation as a contributing scientist. Dr. Russak holds a BS in Ceramic Engineering and a PhD in Materials Science from Rutgers University.

Dr. Barnes joined Intevac as Vice President and Chief Technical Officer in February 2006. Before joining Intevac, Dr. Barnes was General Manager of the High Density Plasma Chemical Vapor Deposition Business Unit at Novellus Systems from March 2004 to February 2006. From January 2004 to March 2004, he was Vice President, Technology at Nanosys, and from August 2003 to January 2004, he was Vice President, Engineering at OnWafer Technologies. Dr. Barnes was employed by Applied Materials from April 1998 to August 2003, first as a Managing Director and subsequently as Vice President, Etch Engineering and Technology. Dr. Barnes holds a BS, MS and PhD in electrical engineering from the University of Michigan.

Ms. Burk was promoted to Vice President of Human Resources in 2008. Previously she served as Human Resource Director since May 2000. Prior to joining Intevac, Ms. Burk served as Human Resources Manager of Moen, Inc. from 1999 to 2000 and as Human Resources Manager of Lawson Mardon from 1994 to 1999. Ms. Burk holds a BS in sociology from Northern Illinois University.

Dr. Pietras joined Intevac as Vice President and General Manager of the Intevac Photonics Business in August 2006. Before joining Intevac, Dr. Pietras was employed by the Sarnoff Corporation from March 2005 to July 2006 as General Manager of Sarnoff Imaging Systems. From September 1998 to March 2005, he was employed by Roper Scientific as Vice President, Operations. Dr. Pietras holds a BS in Physics from the Stevens Institute of Technology and a MA and PhD in Physics from Columbia University.

Mr. Aebi has served as Chief Technology Officer of our Intevac Photonics business since August 2006. Previously, Mr. Aebi served as President of the Photonics Division from July 2000 to July 2006 and as General Manager of the Photonics Division since May 1995. Mr. Aebi was elected as a Vice President of the Company in September 1995. From 1988 through 1994, Mr. Aebi was the Engineering Manager of the night vision business Intevac acquired from Varian Associates in 1991, where he was responsible for new product development in the areas of advanced photocathodes and image intensifiers. Mr. Aebi holds a BS in physics and an MS in electrical engineering from Stanford University.

Mr. Birt joined Intevac as Vice President, Customer Support of the Equipment Products Division in September 2004. Before joining Intevac, Mr. Birt was employed by Applied Materials from July 1992 to September 2004, most recently as Director, Field Operations/Quality North America. Mr. Birt holds a BS in electrical engineering from Texas A&M University.

Mr. Bluck rejoined Intevac as Vice President, Technology of the Equipment Products Division in August 2004. Mr. Bluck had previously worked at Intevac from December 1996 to November 2002 in various engineering positions. The business unit Mr. Bluck worked for was sold to Photon Dynamics in November 2002, and he was employed there as Vice President, Rapid Thermal Process Product Engineering until August 2004. Mr. Bluck holds a BS in physics from San Jose State University.

Mr. Carollo joined Intevac in November 2007 as Vice President and General Manager of Intevac s Creative Display Systems subsidiary. Prior to joining Intevac, Mr. Carollo was founder, president and CEO of Creative Display Systems. Prior to founding Creative Display Systems Mr. Carollo worked for Rockwell-Collins Optronics Electro-Optics from 1993 to 2006 where his most recent position was General Manager. Mr. Corollo holds numerous patents in the area of optics, display systems and optical communications, a MS in Optics from the University of Rochester and a BS in Physics from the State University of New York.

Dr. Carron joined Intevac in January 2007 as Managing Director and General Manager of Intevac s DeltaNu, Inc. subsidiary. In 2008, Dr. Carron was promoted to Vice President. Prior to joining Intevac, Dr. Carron was the CEO of DeltaNu, LLC from March 2002 until January 2007. Dr. Carron was also a professor of Chemistry at the University of Wyoming from 1988 to 2006. Dr. Carron holds a BA in Chemistry from Washington University and a PhD in Chemistry from Northwestern University.

Mr. Justyn has served as Vice President of Operations, Intevac Photonics from October 2008. Mr. Justyn served as Vice President, Equipment Manufacturing from April 1997 to October 2008. Mr. Justyn joined Intevac in

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February 1991 and has served in various roles in our Equipment Products Division and our former night vision business. Mr. Justyn holds a BS in chemical engineering from the University of California, Santa Barbara.

Mr. Kelly joined Intevac in December 2006 as Vice President, Engineering of the Intevac Photonics business. Before joining Intevac, Mr. Kelly was employed by Redlake MASD LLC, a division of Roper Industries from January 2004 to December 2006, most recently as Vice President, Engineering and Custom Service. From November 2000 to December 2003, he was employed by Fast Technology AG as Vice President, Engineering. Mr. Kelly holds a BS and a MS in mechanical engineering from the University of Michigan.

Dr. Kerns joined Intevac as Vice President, Business Development of the Equipment Products Division in August 2003. Before joining Intevac, Dr. Kerns was employed by Applied Materials from April 1997 to November 2002, most recently as Managing Director for Business Development for the Process Modules Group. Previously, Dr. Kerns was General Manager of Applied Materials Metal Etch Division from 2000 to 2002. From 1998 to 2000, Dr. Kerns was Senior Director for Applied Materials North America Multinational Accounts, and from 1997 to 1998, he was General Manager of Applied Materials Dielectric Etch Division. Dr. Kerns holds a BS in chemistry from the University of Idaho and a PhD in theoretical chemistry from Princeton University.

Available Information

Intevac s website is *http://www.intevac.com.* Intevac makes available free of charge, on or through its website, its annual, quarterly and current reports, and any amendments to those reports, as soon as reasonably practicable after electronically filing such reports with, or furnishing them to, the SEC. This website address is intended to be an inactive textual reference only and none of the information contained on Intevac s website is part of this report or is incorporated by reference herein.

Trade Marks

200 Lean®, AccuLube™, ExaminerR™, Lean Etch™, LIVARR®, MicroVista®, NightVista®, MOSIR® and Night Port™, among others, are our trademarks.

Item 1A. ***Risk Factors***

The following factors could materially affect Intevac s business, financial condition or results of operations and should be carefully considered in evaluating the Company and its business, in addition to other information presented elsewhere in this report.

The industries we serve are cyclical, volatile and unpredictable.

The majority of our revenue is derived from the sale of equipment used to manufacture commodity products such as disk drives. This subjects us to business cycles, the timing, length and volatility of which can be difficult to predict. When demand for commodity products exceeds production capacity, then demand for new capital equipment such as ours tends to be amplified. Conversely, when supply of commodity products exceeds demand, then demand for new capital equipment such as ours tends to be depressed. For example, sales of systems for magnetic disk production were severely depressed from mid-1998 until mid-2003 and grew rapidly from 2004 through 2006. The number of new systems delivered in the second half of 2007 was significantly lower than the number of systems delivered in the first half of the year, and fiscal 2008 new system shipments were significantly lower than 2007. We cannot predict with any certainty when these cycles will begin or end, although we believe we entered into a downturn in the cycle in late 2007 which we expect to continue through 2009.

Our equipment represents only a portion of the capital expenditure that our customers incur when they upgrade or add production capacity. Accordingly, our customers generally commit to make large capital expenditures, far in excess of the cost of our systems alone, when they decide to purchase our systems. The magnitude of these capital expenditures requires our customers to have access to large amounts of capital. The magnetic disk and semiconductor manufacturing industries have made significant additions to their production capacity in the last few years. Our customers are unlikely to be willing or able to continue this level of capital investment during the recent

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downturn in the overall economy, or during a downturn in the hard disk drive industry, or the semiconductor industry.

We must effectively manage our resources and production capacity to meet rapidly changing demand. Our business experiences rapid growth and contraction, which stresses our infrastructure, internal systems and managerial resources. During periods of increasing demand for our products, we must have sufficient manufacturing capacity and inventory to meet customer demand; attract, retain and motivate a sufficient number of qualified individuals; and effectively manage our supply chain. During periods of decreasing demand for our products, we must be able to align our cost structure with prevailing market conditions; motivate and retain key employees and effectively manage our supply chain. For example, in the fourth quarter of 2008, we engaged in significant cost reduction measures, as a result of which we expect to reduce expenses by approximately $10 million on an annual basis.

Sales of our equipment are primarily dependent on our customers upgrade and capacity expansion plans and whether our customers select our equipment.

We have no control over our customers upgrade and capacity expansion plans, and we cannot be sure they will select, or continue to select, our equipment when they upgrade or expand their capacity. The sales cycle for our equipment systems can be a year or longer, involving individuals from many different areas of Intevac and numerous product presentations and demonstrations for our prospective customers. Our sales process also commonly includes production of samples, customization of our product and installation of evaluation systems in the factories of our prospective customers. We do not enter into long-term contracts with our customers, and until an order is actually submitted by a customer there is no binding commitment to purchase our systems. Intevac Photonics business is also subject to long sales cycles because many of its products, such as our military imaging products, often must be designed into the customers end products, which are often complex state-of-the-art products. These development cycles are often multi-year, and our sales are contingent on our customers successfully integrating our product into their product, completing development of their product and then obtaining production orders for their product from the U.S. government or its allies.

Sales of new manufacturing systems are also dependent on obsolescence and replacement of the installed base of our customers existing equipment with newer, more capable equipment. If upgrades are developed that extend the useful life of the installed base of legacy systems, then we tend to sell more upgrade products for the legacy systems and fewer new systems, which can significantly reduce total revenue. For example, during 2007 and 2008 some of our 200 Lean customers decided to use legacy systems for the production of first generations of perpendicular media, which delayed the replacement of such legacy systems with new 200 Lean systems.

Our 200 Lean customers also experience competition from companies that produce alternative storage technologies like flash memory, which offer smaller size, lower power consumption and more rugged designs. If alternative technologies, such as flash memory, replace hard disk drives as a significant method of digital storage, then demand for our hard disk manufacturing products would decrease.

We are exposed to risks associated with a highly concentrated customer base.

Historically, a significant portion of our revenue in any particular period has been attributable to sales of our disk sputtering systems to a limited number of customers. In 2008, two of our customers accounted for 69% of total revenues, and four customers in aggregate accounted for 80% of total revenues. The same four customers, in aggregate, accounted for 56% of our net accounts receivable at December 31, 2008. This concentration of customers can lead to extreme variability in revenue and financial results from period to period. For example, over the last eight quarters, our revenues per quarter have fluctuated between $16.4 million and $76.4 million.

Industry consolidation can limit the number of potential customers for our products. For example, Seagate acquired Maxtor in 2006 and Western Digital acquired Komag in 2007. The concentration of our customer base may enable our customers to demand pricing and other terms unfavorable to Intevac, and makes us more vulnerable to changes in demand by a given customer. Orders from a relatively limited number of manufacturers have accounted for, and will likely continue to account for, a substantial portion of our revenues. The loss of one of these large customers, or delays in purchasing by them, could have a material and adverse effect on our revenues.

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Our growth depends on development of technically advanced new products and processes.

We have invested heavily, and continue to invest, in the development of new products, especially our new Lean Etch system. Our success in developing and selling new products depends upon a variety of factors, including our ability to: predict future customer requirements, make technological advances, achieve a low total cost of ownership for our products, introduce new products on schedule, manufacture products cost-effectively including transitioning production to volume manufacturing; commercialize and attain customer acceptance of our products; and achieve acceptable and reliable performance of our new products in the field. Our new product decisions and development commitments must anticipate continuously evolving industry requirements significantly in advance of sales. In addition, we are attempting to expand into new or related markets, including the semiconductor market for our Lean Etch system. Failure to correctly assess the size of the markets, to successfully develop cost effective products to address the markets, or to establish effective sales and support of the new products would have a material adverse effect on future revenues and profits.

Rapid technological change in our served markets requires us to rapidly develop new technically advanced products. Our future success depends in part on our ability to develop and offer new products with improved capabilities and t