

MECHANICAL TECHNOLOGY INC

Form 10-K

March 06, 2014

---

---

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2013

OR

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

FOR THE TRANSITION PERIOD FROM \_\_\_\_ TO \_\_\_\_

**Mechanical Technology, Incorporated**

(Exact name of registrant as specified in its charter)

\_\_\_\_\_  
**New York**

(State or other jurisdiction  
of incorporation or organization)

**000-06890**

(Commission File Number)

**14-1462255**

(IRS Employer  
Identification No.)

**325 Washington Avenue Extension, Albany, New York 12205**

(Address of principal executive offices)

**(518) 218-2550**

**(Registrant's telephone number, including area code)**

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

Title of each class	Name of each exchange on which registered
None	None

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

Common Stock

(\$0.01 par value)

Title of Class

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 checkmark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large Accelerated Filer  Accelerated Filer  Non-Accelerated Filer  (Do not check if a smaller reporting company) Smaller reporting company  T

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2013 (based on the last sale price of \$0.51 per share for such stock reported on the over-the-counter market for that date) was \$2,477,110.

As of February 27, 2014, the Registrant had 5,256,883 shares of common stock outstanding.

Documents incorporated by reference: Portions of the registrant's Proxy Statement for its 2014 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

**INDEX TO FORM 10-K**

**PART I**

	<u>Page</u>
Item 1. <u>Business</u>	3
Item 1A. <u>Risk Factors</u>	7
Item 1B. <u>Unresolved Staff Comments</u>	12
Item 2. <u>Properties</u>	12
Item 3. <u>Legal Proceedings</u>	12
Item 4. <u>Mine Safety Disclosure</u>	12

**PART II**

Item 5. <u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	13
Item 6. <u>Selected Financial Data</u>	13
Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	13
Item 7A. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	19
Item 8. <u>Financial Statements and Supplementary Data</u>	20
Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	20
Item 9A. <u>Controls and Procedures</u>	20
Item 9B. <u>Other Information</u>	20

**PART III**

Item 10. <u>Directors, Executive Officers and Corporate Governance</u>	21
Item 11. <u>Executive Compensation</u>	21
Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	21

Item 13.	<u>Certain Relationships and Related Transactions, and Director Independence</u>	21
Item 14.	<u>Principal Accounting Fees and Services</u>	22
<b>PART IV</b>		
Item 15.	<u>Exhibits, Financial Statement Schedules</u>	23

## **PART I**

### **Item 1: Business**

*Unless the context requires otherwise in this Annual Report on Form 10-K, the terms the Company, we, us, and our refer to Mechanical Technology, Incorporated, MTI Instruments refers to MTI Instruments, Inc., and MTI Micro refers to MTI MicroFuel Cells, Inc. Other trademarks, trade names, and service marks used in this Annual Report on Form 10-K are the property of their respective owners.*

Mechanical Technology, Incorporated, a New York corporation, was incorporated in 1961. The Company's core business is conducted through MTI Instruments, Inc., a wholly-owned subsidiary incorporated in New York on March 8, 2000 and the sole component of the Company's Test and Measurement Instrumentation segment. The Company's operations are headquartered in Albany, NY where it designs, manufactures, and markets its products globally. Through the year ended December 31, 2013, the Company also operated in a New Energy segment with business conducted through MTI MicroFuel Cells, Inc. On December 31, 2013, as a result of a stock warrant exercise, the Company transferred management of MTI Micro to Dr. Walter L. Robb (a member of the Company's and MTI Micro's board of directors) and his new management team. The Company is consequently no longer reporting MTI Micro as a variable interest entity (VIE) as of the close of business on December 31, 2013 (date of MTI Micro deconsolidation). The Company determined that the effect of the deconsolidation of the VIE would be to remove MTI Micro in the consolidated balance sheet as of December 31, 2013 but include MTI Micro's activity in the consolidated statement of operations for the year ended December 31, 2013. The fair value of the Company's current non-controlling interest in MTI Micro has been determined to be \$0 as December 31, 2013 based on MTI Micro's net position and expected cash flows. In the future, the Company will record its investment in MTI Micro using the equity method of accounting, if applicable. As of December 31, 2013, the Company owned an aggregate of approximately 47.5% of MTI Micro's outstanding common stock.

MTI Instruments is a supplier of precision linear displacement solutions, vibration measurement and system balancing solutions, and wafer inspection tools; these tools and solutions are developed for markets that require the precise measurements and control of products processes for the development and implementation of automated manufacturing, assembly, and consistent operation of complex machinery.

As part of its strategy, MTI Instruments provides its customers with enabling sensors and sensing technologies that help advance manufacturing processes and new product development efforts. The demand for higher quality and lower cost products ranging from semiconductor chips to electronics and large items such as automobiles continues to drive Original Equipment Manufacturers (OEMs) and their suppliers to invest in technology and the capability to rapidly produce high quality products. Industry has moved towards flexible manufacturing doctrines around mass customization and production incorporating six sigma, and lean principles to reduce labor and waste, while increasing quality. Modern manufacturing advances at a very rapid pace with the help of automation controls and precision sensing technologies for operating equipment, processes in factories, and other applications with minimal or reduced human intervention. OEMs find that using automation helps them not only improve on quality, but also can save labor, energy and materials while significantly improving accuracy and precision. In some industries like semiconductors, fabrication facilities are fully automated and are aided by humans on a low frequency basis.

Using a combination of integrated smart robotics, manufacturing lines, and a myriad of sensors that measure ongoing equipment performance, monitoring and drive controls have resulted in significant advancements in productivity and quality in manufacturing. There is no question that the world is moving from classic manufacturing and assembly towards automation and measurement.

MTI Instruments has decades of experience in working with OEMs and their suppliers in the development of sensor technology to complement OEMs manufacturing processes, and now in their development of new automation controls and processes by providing sensors and sensing technologies. The Company has taken steps to move towards a market-based approach by examining and targeting specific segments including the industrial and consumer electronics, automotive and other precision automated manufacturing industries, turbo machinery and research for both product and process development segments that lead to the key markets served.

This same approach is driving the demand for engine vibration measurement and balancing. Ongoing efforts to improve engine performance and lower fuel consumption drive both military and commercial axial turbo-machinery operators to maintain their equipment at peak performance.

### **Precision Automated Manufacturing**

As demand increases for higher quality, lower cost, and more efficient products, there is a world-wide need for OEMs to drive continuous improvement efforts through use of the most innovative manufacturing and assembly techniques in products and processes. Due to the level of precision required, these products or processes are managed through automated systems (Piezo positioners, robots, etc.) and require precise measurement, data transmission, analysis and management.

MTI Instruments provides advanced, ultra precision linear displacement solutions that help customers achieve higher levels of efficiency through precision measurement systems that enable valuable data collection and allow process control. We customize linear displacement solutions for OEMs that can be incorporated into a tool or equipment manufactured by a company to monitor performance and/or achieve control ( in product application ) or into a process to control the manufacture of parts or measure critical parameters of parts as they enter or leave a process ( in process applications ).

MTI Instruments is a preferred supplier for applications that require complex and extremely precise measurement of small, intricate targets and assemblies. MTI Instruments uses its significant track record and experience using capacitance, laser and fiber optic technologies to make accurate linear displacement measurements to the sub-nanometer level of accuracy. These advanced sensing and physical measurement technologies are used to produce products that range from basic sensors to complete, fully integrated measurement systems. Applications include precision positioning, material surface measurements, off-center vibration measurements, and pattern recognition analysis.

Listed below are selected MTI Instruments Automated Manufacturing product offerings and technologies:

	<b>Product</b>	<b>Description</b>
NEW PRODUCT	Accumeasure Series	Ultra-high precision capacitive systems offering nanotechnology accuracy.
	Accumeasure D Series	Ultra-high precision digital capacitive systems offering sub-nanotechnology accuracy.
	Microtrak 3	Single spot laser sensor equipped with the latest complementary metal oxide semiconductor (CMOS) sensor technology with higher sensitivity than previous generation.
NEW PRODUCT	Microtrak LTS	Easy to use single spot laser thickness systems with the latest CMOS sensor technology, and digital linearization for superb linearity.
	Microtrak PRO-2D	2D laser triangulation scanners that provide profile, displacement, and 3D images.
	MTI-2100 Fotonic Sensor Series	Fiber-optic based vibration sensor systems with high frequency response.

#### **Axial Turbo Machinery**

Turbo machines are categorized according to the type of flow. When the fuel and air flow is parallel to the axis of rotation, they are referred to as axial flow machines. MTI Instruments is a leader in the development and commercialization of vibration measurement and system balancing for axial type engines typically medium and large turbo fan aircraft engines for both military and commercial applications.

MTI Instruments designs and manufactures computer-based portable balancing systems (PBS) products which automatically collect and record engine vibration data, identifying vibration or balance trouble, and calculating a solution to the problem. These products are designed to quickly pinpoint engine vibration issues.



PBS products are used by major aircraft engine manufacturers, the U.S. and foreign militaries, and commercial airlines, as well as gas turbine manufacturers.

Listed below are selected MTI Instruments Turbo Machinery product offerings and technologies:

<b>Product</b>	<b>Description</b>
PBS-4100+ Portable Balancing System	Detects engine vibration and a trim balance problem and provides a solution.
PBS-4100R Test Cell Vibration Analysis & Trim Balance System	Advanced trim balancing and diagnostics for engine test cells.
TSC-4800A Tachometer Signal Conditioner	Tachometer signal conditioner detects and conditions signals for monitoring, measuring, and indicating engine speeds.
1510A Calibrator	National Institute of Standards and Technology (NIST) traceable signal generator that outputs voltage signals useful to test and calibrate electronic equipment.

**Industrial and Academic Research and Development (R&D)**

Present-day research and process development is a core part of the modern business world; critical decisions are made from data and discoveries made through these efforts. As companies understand and profit from the benefits of organized R&D efforts, they also make further commitments and investments into new R&D cycles making internal

R&D budgets reach higher and higher levels. R&D is also a tool for modern companies to proactively leapfrog competition and keep pace with trends, enhance manufacturing processes, and develop products to meet new customer demands.

MTI Instruments has a long track record of working with private sector companies as well as academic institutions on their R&D efforts. We have a dedicated line of tabletop linear displacement instruments, material testers, and wafer metrology tools that help provide valuable information to enhance products and processes. Our family of R&D related products are used widely in applications including wafer surface metrology, nano-material testing, and precision linear displacement and positioning. Our customers include testing and R&D departments in large industry and academia as well as process development laboratories focused in automotive, electronics, semiconductor, solar, and material development.

Listed below are MTI Instruments Industrial and Academic Research and Development product offerings and technologies:

<b>Product</b>	<b>Description</b>
Proforma 200SA/300SA	Semi-automated, non-contact semiconductor full wafer surface scanning system for thickness, total thickness variation (TTV), bow, warp, site and global flatness.
Proforma 300	Manual, non-contact measurement of semiconductor wafer thickness, TTV and bow.
PV 1000	In process tool for measuring thickness and bow of solar wafers.
MTII/Fullam Tensile Stages	Tensile testers specifically designed for use inside scanning electron and other microscopes.
NEW PRODUCT	Accumeasure Series Ultra-high precision capacitive systems offering nanotechnology accuracy.
	Accumeasure D Series Ultra-high precision digital capacitive systems offering sub-nanotechnology accuracy.
MTI-2100 Fotonic Sensor Series	Fiber-optic based vibration sensor systems with high frequency response.

## Edgar Filing: MECHANICAL TECHNOLOGY INC - Form 10-K

MTI Instruments markets its products and services using selected and specific channels of distribution. In the Americas, for precision automated manufacturing and the R&D sectors, MTI Instruments uses a combination of direct sales and representatives. Overseas, particularly in Europe and Asia, MTI Instruments uses distributors and agents specific to our targeted end markets. For axial turbo machinery, MTI Instruments primarily sells directly to end users.

To supplement these efforts, we use both commercial and industrial search engines, targeted newsletters, purchased customer lists and participation in trade shows to identify and expand its customer base.

Product Development and Manufacturing

MTI Instruments conducts research and develops technology to support both its existing and new products. Management believes that MTI Instruments' success depends to a large extent upon identifying market requirements, innovation, and utilizing our technological expertise to develop and implement new products.

In 2013, efforts were dedicated to the development and commercialization of a brand new family of products – the Accumeasure D series. Using 30 plus years of linear displacement experience, engineers and scientists worked hand in hand to combine capacitance principles with modern enabling digital technology – the result, an ultra precise linear displacement capacitance system with a true digital output.

During the fourth quarter of 2012, MTI Instruments launched the Microtrak 3 family of single spot laser sensors equipped with the latest CMOS sensor technology for better performance than previous products. Today, this product is being used in some of the largest consumer electronics assembly operations in Asia.

We seek to achieve a competitive position by continuously advancing our technology, producing new state of the art precision measurement equipment, expanding our worldwide distribution, and providing intimate customer support.

MTI Instruments develops, assembles and tests its products at its facility located in Albany, New York. Management believes that most of the raw materials used in our products are readily available from a variety of vendors.

Intellectual Property and Proprietary Rights

We rely on trade secret and copyright laws to establish and protect the proprietary rights of our products. In addition, we enter into standard confidentiality agreements with our employees and consultants and seek to control access to and distribution of our proprietary information. Even with 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 copyright and trade secret protection may be unavailable or limited in certain foreign countries.

Significant Customers

MTI Instruments' largest customer is the U.S. Air Force. We also have strong relationships with companies in the electronics, aircraft, aerospace, automotive, semiconductor and research industries. The U.S. Air Force accounted for 27.2% and 22.3%, respectively, of product revenues during 2013 and 2012. The largest commercial customer in 2013 was an Asian customer, who accounted for 6.8% of total product revenues in 2013. The largest commercial customer in 2012 was an Asian distributor, who accounted for 6.9% of total product revenues in 2012.

Competition

We compete with several companies, substantially all of which are larger than MTI Instruments.

In the precision automated manufacturing market, MTI Instruments faces competition from companies including Keyence, Micro Epsilon, Microsense, Schmitt Industries, Capacitec, and Lion Precision Instruments.

In axial turbo machinery, MTI Instruments competes with companies including ACES Systems and Meggitt Sensing Systems.

In R&D, competition includes companies in precision linear displacement, including Gatan, Deben, Sigma Tech Corporation, and E+H (Eichhorn+Hausmann) GmbH.

The primary competitive considerations in MTI Instruments' markets are product quality, performance, price, timely delivery, and the ability to identify, pursue and obtain new customers. MTI Instruments believes that its employees, product development skills, sales and marketing systems and reputation are competitive advantages.

**Research and Development**

MTI Instruments conducts research and develops technology to support its existing products and develop new products. Management believes that the success of MTI Instruments depends to a large extent upon identifying market requirements, innovation, technological expertise and new product development.

MTI has incurred research and development costs of approximately \$1.3 million and \$1.4 million, which is primarily related to MTI Instruments, for the years ended December 31, 2013 and 2012, respectively. We expect to continue to invest in research and development in the future at MTI Instruments as part of our growth strategy.

## Employees

As of December 31, 2013, we had 35 employees including 31 full-time employees.

## Item 1A: Risk Factors

### Factors Affecting Future Results

This Annual Report on Form 10-K contains forward-looking statements that involve risks and uncertainties within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements contained, or incorporated by reference, in this Annual Report on Form 10-K that are not statements of historical fact may be forward-looking statements. When we use the words anticipate, estimate, plans, projects, continuing, ongoing, expects, management believes, we intend, should, could, may, will and similar words or phrases, we are identifying forward-looking statements. Forward-looking statements include, but are not limited to, statements regarding:

- anticipated growth in revenues and cashflows;
- management's belief that it will have adequate resources to fund the Company's operations and capital expenditures over at least the next twelve months;
- anticipated levels of future earnings and continued positive cash flow;
- the expectation that further cost-cutting measures will be avoided;
- future capital expenditures and spending on research and development;
- needing to hire additional personnel and purchase equipment;
- expected funding of future cash expenditures;
- projected inventory reductions; and
- the impact of pending legal proceedings.

Forward-looking statements involve risks, uncertainties, estimates and assumptions that may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking

statements. Important factors that could cause these differences include the following:

- statements with respect to management's strategy and planned initiatives;
- sales revenue growth of our MTI Instruments business may not be achieved or maintained;
  
- the dependence of our MTI Instruments business on a small number of customers and potential loss of government contracts - particularly in light of expected defense department spending reductions resulting from the sequestration implemented in 2013 or cuts that may be imposed as a result of ongoing Congressional budget negotiations;
- our lack of long-term purchase commitments from our customers and the ability of our customers to cancel, reduce, or delay orders for our products;
  
- our inability to build and maintain relationships with our customers;
- our inability to develop and utilize new technologies that address the needs of our customers;
- the cyclical nature of the electronics and military industries;
- the uncertainty of the U.S. and global economy;
- the impact of future exchange rate fluctuations;
- failure of our strategic alliances to achieve their objectives or perform as contemplated and the risk of cancellation or early termination of such alliance by either party;
- the loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel;
  
- risks related to protection and infringement of intellectual property;
- our occasional dependence on sole suppliers or a limited group of suppliers for MTI Instruments' business;
  
- our ability to generate income to realize the tax benefit of our historical net operating losses;
  
- risks related to the limitation of the use, for tax purposes, of our net historical operating losses in the event of certain ownership changes; and
  
- other risks discussed below.

Except as may be required by applicable law, we do not undertake or intend to update or revise our forward-looking statements, and we assume no obligation to update any forward-looking statements contained in, or incorporated by reference into, this Annual Report on Form 10-K as a result of new information or future events or developments. Thus, assumptions should not be made that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.



## **Risk Factors**

*You should consider carefully the following risks, along with other information contained in this Annual Report on Form 10-K. The risks and uncertainties described below are not the only ones that may affect us. Additional risks and uncertainties also may adversely affect our business and operations including those discussed in the heading **Factors Affecting Future Results** above. Any of the following events, should they actually occur, could materially and adversely affect our business and financial results.*

***If we are unsuccessful at addressing our business challenges, our business and results of operations and financial condition may be adversely affected and our ability to invest in and grow our business could be limited.***

In order to achieve profitability and improve liquidity, we must successfully achieve all or some combination of the following initiatives: increasing sales, developing new products, controlling operating expenses, managing our cash flows, achieving our targeted cost savings and efficiencies from prior cost reduction initiatives, improving operational efficiency and estimating and projecting accurately our liquidity and capital resources. In Management's Discussion and Analysis of Financial Condition and Results of Operations Management's Plan, Liquidity and Capital Resources in this Annual Report on Form 10-K, we made estimates regarding our cash flow, results of operations and ability to access our existing line of credit at MTI Instruments for the year ending December 31, 2014. If our cash flow, results of operations or ability to borrow under our line of credit are less favorable than we have estimated, we may not be able to make all of our planned operating or capital expenditures or fully execute all of our other plans. Our financial success depends in part on management's ability to execute our growth strategy. We expect that we will depend primarily on cash generated by our operations for funds to pay our expenses and any amounts due under our credit facility and any other indebtedness we may incur. Our ability to make these payments depends on our future performance, which will be affected by financial, business, economic and other factors, many of which we cannot control. Our business may not generate sufficient cash flows from operations in the future and our currently anticipated growth in revenues and cash flows may not be realized, either or both of which could result in our being unable to repay indebtedness or to fund other liquidity needs. If we do not have enough money, we may be required to sell assets or borrow money, in each case on terms that may not be acceptable to us. In addition, the terms of existing or future debt agreements, including our existing line of credit, may restrict us from adopting any of these alternatives. In addition, any significant levels of indebtedness in the future could place us at a competitive disadvantage compared to our competitors that may have access to additional resources or proportionately less debt and could make us more vulnerable to economic downturns and adverse developments in our business. Any future loss incurred by the Company could have a material adverse effect on our business and our ability to generate the cash needed to operate our business. Even though we achieved profitability during 2013, we may be unable to sustain or increase our profitability in the future. Failure to continue to implement these initiatives successfully, or the failure of such

initiatives to result in improved profitability, could have a material adverse effect on our business plans, liquidity, results of operations and financial condition and may result in a further downsize to the business.

***We currently derive all of our product revenue from our MTI Instruments business.***

All of our revenue is currently derived from our MTI Instruments business. We do not have a broad portfolio of other products we could rely on to support operations if we were to experience a substantial slowdown in our MTI Instruments business, which is subject to a number of risks, including:

- dependence on a small number of customers;
- a continued slow down or cancellation of sales to the military as a result of a potential redeployment, or sequestration, of governmental funding;
- our ability to maintain, improve, or expand its direct and indirect channels of distribution;
- the potential failure to expand or maintain the business as a result of competition, a lack of brand awareness, or market saturation; and
- an inability to launch new products as a result of intense competition, uncertainty of new technology development, or limited or unavailable resources to fund development.

In addition, revenues from the sale of MTI Instruments products can vary significantly from one period to the next. We may sell a significant amount of our products to one or a few customers for various short term projects in one period, and then have markedly decreased sales in following periods as these projects end or customers have the products they require for the foreseeable future. This scenario played out in 2012, when MTI Instruments experienced a significant decline compared to the prior year. The fact that we sell a significant amount of our products to a relatively few number of customers also results in a customer concentration risk. The loss of any significant portion of such customers or a material adverse change in the financial condition of any one of these customers could have a material adverse effect on our revenues, our business and our ability to generate the cash needed to operate our business.

***Variability of customer requirements resulting in cancellations, reductions, or delays may adversely affect our operating results.***

We are required to provide rapid product turnaround and respond to short lead times. A variety of conditions, both specific to individual customers and generally affecting the demand for OEMs products, may cause customers to cancel, reduce, or delay orders. Cancellations, reductions, or delays by a significant customer or by a group of customers could adversely affect our operating results. Conversely, if our customers unexpectedly and significantly increase product orders, we may be required to rapidly increase production, which could strain our resources and

reduce our margins.

***If we do not keep pace with technological innovations, our products may not be competitive and our revenue and operating results may suffer.***

The electronic, semiconductor, solar, automotive and general industrial segments are subject to constant technological change. Our future success will depend on our ability to respond appropriately to changing technologies and changes in product function and quality. If we rely on products and technologies that are not attractive to end users, we may not be successful in capturing or retaining market share. Technological advances, the introduction of new products, and new design techniques could adversely affect our business prospects unless we are able to adapt to the changing conditions. Technological advances could render our products obsolete, and we may not be able to respond effectively to the technological requirements of evolving markets. As a result, we will be required to expend substantial funds for and commit significant resources to:

- continue research and development activities on all product lines;
- hire additional engineering and other technical personnel; and
- purchase advanced design tools and test equipment.

Our business could be harmed if we are unable to develop and utilize new technologies that address the needs of our customers, or our competitors do so more effectively than we do.

***We may not be able to enhance our product solutions and develop new product solutions in a timely manner.***

Our future operating results will depend to a significant extent on our ability to provide new products that compare favorably with alternative solutions on the basis of time to introduction, cost, performance, and end-user preferences. Our success in attracting and retaining customers and developing business will depend on various factors, including the following:

- innovative development of new products for customers;
- utilization of advances in technology;
- maintenance of quality standards;
- efficient and cost-effective solutions; and
- timely completion of the design and introduction of new products.

Our inability to develop new product solutions on a timely basis could harm our operating results and impede our growth.

***Our efforts to develop new technologies may not result in commercial success and/or may result in delays in development, which could cause a decline in our revenue and could harm our business.***

Our research and development efforts with respect to our technologies may not result in customer or market acceptance. Some or all of those technologies may not successfully make the transition from the research and development lab to cost-effective production as a result of technology problems, competitive cost issues, yield problems, and other factors. Even when we successfully complete a research and development effort with respect to a particular technology, our customers may decide not to introduce or may discontinue products utilizing the technology for a variety of reasons, including the following:

- difficulties with other suppliers of components for the products;
- superior technologies developed by our competitors and unfavorable comparisons of our solutions with these technologies;
- price considerations; and
- lack of anticipated or actual market demand for the products.

The nature of our business will require us to make continuing investments for new technologies. Significant expenses relating to one or more new technologies that ultimately prove to be unsuccessful for any reason could have a material adverse effect on us. In addition, any investments or acquisitions made to enhance our technologies may prove to be unsuccessful. If our efforts are unsuccessful, our business could be harmed.

***The electronics and military industries are cyclical and may result in fluctuations in our operating results.***

The electronics and military industries have experienced significant economic downturns at various times. These downturns are characterized by diminished product demand, accelerated erosion of average selling prices, and production overcapacity. We may seek to reduce our exposure to industry downturns by providing design and production services for leading companies in rapidly expanding industry segments. We may, however, experience substantial period-to-period fluctuations in future operating results because of general industry conditions or events occurring in the general economy.

***Our operating results may experience significant fluctuations.***

In addition to the variability resulting from the short-term nature of our customers' commitments, other factors contribute to significant periodic and seasonal quarterly fluctuations in our results of operations. These factors include:

- the cyclical nature of the markets we serve;
- the timing and size of orders;
- the volume of orders relative to our capacity;
- product introductions and market acceptance of new products or new generations of products;
- evolution in the life cycles of our customers' products;
- timing of expenses in anticipation of future orders;
- changes in product mix;
- availability of manufacturing and assembly services;
- changes in cost and availability of labor and components;
- timely delivery of product solutions to customers;
- pricing and availability of competitive products;
- introduction of new technologies into the markets we serve;
- pressures on reducing selling prices;
- our success in serving new markets; and
- changes in economic conditions.

***International sales risks could adversely affect our operating results. Furthermore, our operating results could be adversely affected by fluctuations in the value of the U.S. dollar against foreign currencies.***

Having a worldwide distribution network for our products exposes us to various economic, political, and other risks that could adversely affect our operations and operating results, including the following:

- unexpected changes in regulatory requirements;
- timing to meet regulatory requirements;
- tariffs, duties and other trade barrier restrictions;
- greater difficulty in collecting accounts receivable;
- the burdens and costs of compliance with a variety of foreign laws;

- potentially reduced protection for intellectual property rights; and
- political or economic instability in certain parts of the world.

The risks associated with international sales could negatively affect our operating results.

We transact our business in U.S. dollars and bill and collect our sales in U.S. dollars. In 2013, approximately 34.6% of our revenue was from customers outside of the United States. A weakening of the dollar could cause our overseas vendors to require renegotiation of either the prices or currency we pay for their goods and services. Similarly, a strengthening of the dollar could cause our products to be more expensive for our international customers, which could impact price and margins and/or cause the demand for our products, and thus our revenue, to decline.

In the future, customers may negotiate pricing and make payments in non-U.S. currencies. If our overseas vendors or customers require us to transact business in non-U.S. currencies, fluctuations in foreign currency exchange rates could affect our cost of goods, operating expenses, and operating margins and could result in exchange losses. In addition, currency devaluation can result in a loss to us if we hold deposits of that currency. Hedging foreign currencies can be difficult, especially if the currency is not freely traded. We cannot predict the impact that future exchange rate fluctuations may have on our operating results.

***Continuing uncertainty of the U.S. and global economy may have serious implications for the growth and stability of our business.***

Revenue growth and continued profitability of our business will depend significantly on the overall demand for test and measurement instrumentations in key markets including research and development, automotive, semiconductor and electronics. Softening demand in these markets caused by ongoing economic uncertainty, technological developments, competitive changes or other factors may result in decreased revenue or earnings levels. The U.S. and global economy has been historically cyclical and market conditions continue to be challenging, which has resulted in individuals and companies delaying or reducing expenditures. Further delays or reductions in spending could have a material adverse effect on demand for our products, and consequently on our business, financial condition, results of operations, prospects, stock price, and ability to continue to operate.

***We depend on key personnel who would be difficult to replace, and our business will likely be harmed if we lose their services or cannot hire additional qualified personnel.***

Our success depends substantially on the efforts and abilities of our senior management and key personnel. The competition for qualified management and key personnel, especially engineers, is intense. Although we maintain non-competition and non-disclosure covenants with most of our key personnel, we do not have employment agreements with most of them. The loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel, especially engineers, technical support personnel, and capable sales and customer-support employees outside the United States, could delay the development and sale of our products, disrupt our business, and interfere with our ability to execute our business plan.

***We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from selling our products, require us to obtain licenses from third parties or to develop non-infringing alternatives, and subject us to substantial monetary damages and injunctive relief.***

We may receive notices from third parties that the manufacture, use, or sale of any products we develop infringes upon one or more claims of their patents. Moreover, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, that may later result in issued patents that materially and adversely affect our business. Third parties could also assert infringement or misappropriation claims against us with respect to our future product offerings, if any. We cannot be certain that we have not infringed the intellectual property rights of any third parties. Any infringement or misappropriation claim could result in significant costs, substantial damages, and our inability to manufacture, market, or sell any of our product offerings that are found to infringe. Even if we were to prevail in any such action, the litigation could result in substantial cost and diversion of resources that could materially and adversely affect our business. If a court determined, or if we independently discovered, that our product offerings violated third-party proprietary rights, there can be no assurance that we would be able to re-engineer our product offerings to avoid those rights or obtain a license under those rights on commercially reasonable terms, if at all. As a result, we could be prohibited from selling products that are found to infringe upon the rights of others. Even if obtaining a license were feasible, it may be costly and time-consuming. A court could also enter orders that temporarily, preliminarily, or permanently enjoin us from making, using, selling, offering to sell, or importing our products that are found to infringe on third parties' intellectual property rights, or could enter orders mandating that we undertake certain remedial actions. Further, a court could order us to pay compensatory damages for any such infringement, plus prejudgment interest, and could in addition treble the compensatory damages and award attorneys' fees. Any such payments could materially and adversely affect our business and financial condition.

***Our confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information, which could limit our ability to compete.***

We rely on trade secrets to protect our proprietary technology and processes. Trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties confidential information developed by the party under such agreements or made known to the party by us during the course of the party's relationship with us. However, these agreements may not be honored and enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time-consuming, and the outcome is unpredictable. Our failure to obtain and maintain trade secret protection could adversely affect our competitive position.

***We experienced an ownership change in MTI Micro that resulted in a limitation of tax attributes relating to the use of their net operating losses, and we may experience further ownership changes in MTI which would result in a further limitation of the use of our net operating losses.***

We estimate that as of December 31, 2013, the Company and MTI Instruments have net operating loss (NOL) carryforwards of approximately \$51.9 million and MTI Micro has NOL carryforwards of approximately \$16.8 million. As a result of the conversion of the bridge notes in December 2009, MTI no longer maintained an 80% or greater ownership in MTI Micro. Thus, MTI Micro was no longer included in Mechanical Technology, Incorporated and Subsidiaries' consolidated federal and combined New York State tax returns, effective December 9, 2009. Pursuant to the Internal Revenue Service's consolidated tax return regulations (IRS Regulation Section 1.1502-36), upon MTI Micro leaving the Mechanical Technology, Incorporated and Subsidiaries' consolidated group, MTI elected to reduce a portion of its stock tax basis in MTI Micro by "reattributing" a portion of MTI Micro's NOL carryforwards to MTI, for an amount equivalent to its built-in loss amount in MTI's investment in MTI Micro's stock. As the result of MTI making this election with its December 31, 2009 tax return, MTI reattributed approximately \$45.2 million of MTI Micro's NOLs (reducing its tax basis in MTI Micro's stock by the same amount), leaving MTI Micro with approximately \$13 million of separate company NOL carryforwards at the time of conversion of the Bridge Notes.

A corporation generally undergoes an ownership change when the ownership of its stock, by value, changes by more than 50 percentage points over any three-year testing period. In the event of an ownership change, Section 382 of the Internal Revenue Code of 1986 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change NOL carryforwards and certain recognized built-in losses.

Our ability to utilize the MTI NOL carryforwards, including any future NOL carryforwards that may arise, may be limited by Section 382 if we undergo any further ownership changes as a result of subsequent changes in the ownership of our outstanding common stock pursuant to the exercise of MTI options outstanding, additional financings obtained, or otherwise.

**Item 1B: Unresolved Staff Comments**

Not applicable.

**Item 2: Properties**

We lease approximately 17,400 square feet of office, manufacturing and research and development space at 325 Washington Avenue Extension, Albany, NY 12205. The current lease agreement expires on November 30, 2014 and negotiations are underway for leasing facilities beyond this time period. We believe our facilities are generally well maintained and adequate for our current needs and for expansion, if required.

**Item 3: Legal Proceedings**

In January 2013, an action commenced and is pending in the State of New York Supreme Court in Albany County upon a complaint of the plaintiff, Berkshire Bank, against Kingfisher, LLC; Edward L. Hoe, Jr.; Mechanical Technology, Incorporated; MTI MicroFuel Cells Inc.; Xcelaero Corporation; Regional Emergency Medical Services Council of the Hudson-Mohawk Valleys, Inc.; Inverters Unlimited Inc.; and John Doe No. 1 through John Doe No. 15 (the named defendants) for the foreclosure of the mortgaged premises located at 431 New Karner Road, Town of Colonie, County of Albany, New York. The Company was named as a party defendant to this action by virtue of its former possession of a portion of the mortgaged premises, and the fact that they have, or claim to have, a leasehold or

other possessory interest in a portion of the mortgaged premises. On October 1, 2013, the State of New York Supreme Court in Albany County granted a judgment of foreclosure and closed out this action. The Company is under no obligations in relation to this judgment.

At any point in time, we may be involved in various lawsuits or other legal proceedings. Such lawsuits could arise from the sale of products or services or from other matters relating to our regular business activities, compliance with various governmental regulations and requirements, or other transactions or circumstances. We do not believe there are any such proceedings presently pending that could have a material effect on our business, financial condition or results of operations.

**Item 4: Mine Safety Disclosure**

Not applicable.



**PART II**

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

(a)

**Market Information**

Our common stock is quoted on the OTC Markets Group quotation system under the symbol MKTY. The following table sets forth the high and low bid information for our common stock as reported on the OTC Market Group quotation system for the periods indicated:

	<b>High</b>	<b>Low</b>
<b>Fiscal Year Ended December 31, 2013</b>		
First Quarter	\$ .39	\$ .11
Second Quarter	.70	.22
Third Quarter	1.65	.49
Fourth Quarter	1.08	.75
<b>Fiscal Year Ended December 31, 2012</b>		
First Quarter	\$ .74	\$ .11
Second Quarter	.58	.11
Third Quarter	.39	.11
Fourth Quarter	.37	.17

**Holder**s

We have one class of common stock, par value \$.01, and are authorized to issue 75,000,000 shares of common stock. Each share of the Company's common stock is entitled to one vote on all matters submitted to stockholders. As of December 31, 2013 and 2012 there were 5,256,883 shares of common stock issued and outstanding. As of February 19, 2014, there were approximately 237 shareholders of record of the Company's common stock.

## **Dividends**

We have never declared or paid dividends on our common stock and do not anticipate or contemplate paying cash dividends on our common stock in the foreseeable future. We currently intend to use all available funds to develop our business. We can give no assurances that we will ever have excess funds available to pay dividends. Any future determination as to the payment of dividends will depend upon critical requirements and limitations imposed by our credit agreements, if any, and such other factors as our board of directors may consider.

## **Item 6: Selected Financial Data**

Not applicable.

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

*The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report. This discussion contains forward-looking statements, which involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including those discussed in Item 1A: Risk Factors and elsewhere in this Annual Report.*

## Overview

MTI's core business is conducted through MTI Instruments, Inc., a wholly-owned subsidiary and the sole component of the Company's Test and Measurement Instrumentation segment. The Company also operated in a New Energy segment with business conducted through MTI MicroFuel Cells, Inc. until December 31, 2013 (date of MTI Micro deconsolidation).

*Test and Measurement Instrumentation Segment* MTI Instruments is a supplier of precision linear displacement solutions, vibration measurement and system balancing solutions, precision tensile measurement systems and wafer inspection tools, serving markets that require 1) the precise measurements and control of products and processes in automated manufacturing, assembly, and consistent operation of complex machinery, 2) metrology tools for semiconductor and solar wafer characterization, tensile stage systems for materials testing and precision linear displacement gauges all for use in academic and industrial research and development settings, and 3) engine balancing and vibration analysis systems for both military and commercial aircraft.

We are continuously working on ways to increase our sales reach, including expanded worldwide sales coverage and enhanced internet marketing.

*New Energy Segment* MTI Micro had been developing an off-the-grid power solution for various portable electronic devices. Its patented proprietary direct methanol fuel cell technology platform converts methanol fuel to usable electricity capable of providing continuous power, as long as necessary fuel flows are maintained.

## Recent Developments

The Company appointed Kevin G. Lynch as the Chief Executive Officer of the Company, effective May 1, 2013. Mr. Lynch had served as the Acting Chief Executive Officer, in an advisory role, since September 12, 2012. In connection with his permanent appointment, Mr. Lynch receives an annual base salary of \$260,000 and is eligible for an annual bonus of up to \$200,000 based upon achieving milestones as established by the Board of Directors. Mr. Lynch also received options to purchase 100,000 shares of the Company's common stock at an exercise price of \$0.46 per share based on the closing market price of our common stock on the date of grant.

On August 28, 2013, the Board of Directors of the Company appointed David C. Michaels to the Board of Directors. Mr. Michaels was also elected to the Governance, Compensation & Nominating Committee and the Audit Committee

of the Board. Upon joining the Board, Mr. Michaels received options to purchase 12,500 shares of the Company's common stock at an exercise price of \$0.90 per share based on the closing market price of our common stock on the date of grant.

## **Results of Operations**

### ***Results of Operations for the Year Ended December 31, 2013 Compared to the Year Ended December 31, 2012.***

#### **Test and Measurement Instrumentation Segment**

*Product Revenue:* Product revenue relates to revenue recognized from the Test and Measurement Instrumentation product lines.

Product revenue in our Test and Measurement Instrumentation segment for the year ended December 31, 2013 increased by \$2.5 million, or 41.6%, to \$8.4 million in 2013 from \$5.9 million in 2012. This increase in product revenue was attributable to a 57.2% increase in shipments of military and commercial aviation balancing systems and accessory kits most notably under existing Air Force contracts. Also contributing to the overall increase was a 37.3% rise in general instrumentation revenue, which was driven by higher capacitance product, tensile stage and laser system sales. For the year ended December 31, 2013, the largest commercial customer for the segment was an Asian customer, which accounted for 6.8% of annual product revenue. In 2012, the largest commercial customer for the segment was an Asian distributor, which accounted for 6.9% of annual product revenue. The U.S. Air Force was the largest government customer for the year ended December 31, 2013 and accounted for 27.2% of annual product revenue. The U.S. Air Force was also the largest government customer for the year ended December 31, 2012 and accounted for 22.3% of annual product revenue.



Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)	Contract <sup>(1)</sup>	Expiration	Revenues for the		Contract	Total
			Year Ended	Year Ended	Revenues	Contract
			December 31,	December 31,	to Date	Orders
			2013	2012	December	Received
					31,	To Date
					2013	December
						31,
						2013
	Aviation Balancing Systems					
	\$6.5 million U.S. Air Force Maintenance	09/27/2014 <sup>(2)</sup>	\$ 863	\$ 504	\$ 4,271	\$ 4,273
	\$4.1 million U.S. Air Force Systems	08/29/2015 <sup>(2)</sup>	\$ 399	\$ 171	\$ 1,254	\$ 1,254
	\$917 thousand U.S. Air Force Kit	09/30/2014 <sup>(3)</sup>	\$ 585	\$184	\$769	\$769

Contract values represent maximum potential values at time of contract placement and may not be representative (1) of actual results.

(2) Date represents expiration of contract, which includes the exercise of all four option extensions.

(3) Date represents expiration of contract, which includes the exercise of two option extensions.

*Cost of Product Revenue:* Cost of product revenue includes the direct material and labor cost as well as an allocation of overhead costs that relate to the manufacturing of products we sell. In addition, cost of product revenue also includes the labor and material costs incurred for product maintenance, replacement parts and service under our contractual obligations.

Cost of product revenue in our Test and Measurement Instrumentation segment for the year ended December 31, 2013 increased by \$288 thousand, or 9.7%, to \$3.3 million in 2013 from \$3.0 million in 2012 primarily as a result of the increased sales as discussed above under *Product Revenue*, partially offset by reduced production overhead, lower product material costs and improved inventory management. Such offsetting factors also resulted in gross profit, as a percentage of product revenue, increasing to 61.0% compared to 49.7% during 2012.

*Unfunded Research and Product Development Expenses:* Unfunded research and product development expenses (meaning research and development that we conduct that is not reimbursed by customers) includes the costs of materials to build development and prototype units, cash and non-cash compensation and benefits for the engineering and related staff, expenses for contract engineers, fees paid to outside suppliers for subcontracted components and services, fees paid to consultants for services provided, materials and supplies consumed, facility related costs such as computer and network services, and other general overhead costs associated with our research and development activities.

Unfunded research and product development expenses in our Test and Measurement Instrumentation segment for the year ended December 31, 2013 decreased by \$45 thousand, or 3.3%, to \$1.3 million in 2013 from \$1.4 million in 2012. This decrease was due to reduced external development spending and lower personnel costs.

*Selling, General and Administrative Expenses:* Selling, general and administrative expenses includes cash and non-cash compensation, benefits and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services.

Selling, general and administrative expenses in our Test and Measurement Instrumentation segment for the year ended December 31, 2013 increased by \$143 thousand, or 7.5%, to \$2.1 million in 2013 from \$1.9 million in 2012. This increase is the result of additional staffing in the sales department, higher commissions to external sales representatives and increased international travel.

## **New Energy Segment**

*Unfunded Research and Product Development Expenses:* Unfunded research and product development expenses includes materials to build development and prototype units, cash and non-cash compensation and benefits for the engineering and related staff, expenses for contract engineers, fees paid to outside suppliers for subcontracted components and services, fees paid to consultants for services provided, materials and supplies consumed, facility related costs such as computer and network services, and other general overhead costs associated with our research and development activities.

There was no unfunded research and product development expenses in our New Energy segment for the year ended December 31, 2013, compared to unfunded research and product development income of \$1 thousand in 2012. This decrease is attributable to the suspension of MTI Micro's operations that began in late 2011. As of December 31, 2013, the Company no longer reported the New Energy segment as a VIE. Refer to the Consolidated Financial Statements Note 2 regarding the deconsolidation of the VIE.



*Selling, General and Administrative Expenses:* Selling, general and administrative expenses includes cash and non-cash compensation, benefits and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services.

Selling, general and administrative expenses in our New Energy segment decreased by \$71 thousand to \$89 thousand for the year ended December 31, 2013, compared to \$160 thousand in 2012. This decrease is attributable to the suspension of operations that began in late 2011. As of December 31, 2013, the Company no longer reported the New Energy segment as a VIE. Refer to the Consolidated Financial Statements Note 2 regarding the deconsolidation of the VIE.

#### **MTI Parent Corporate Entity**

*Selling, General and Administrative Expenses:* Selling, general and administrative expenses includes cash and non-cash compensation, benefits and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services.

Selling, general and administrative expenses from the Corporate Entity for the year ended December 31, 2013 decreased by \$468 thousand, or 26.8%, to \$1.3 million in 2013 from \$1.7 million in 2012. This decrease is the result of a decrease in audit fees for 2013 as well as decreases in salary and benefits related to management changes in 2012.

#### **Results of Consolidated Operations**

*Operating Income (Loss):* Operating income for the year ended December 31, 2013 was \$361 thousand compared to operating loss of \$2.2 million in 2012. This increase in operating income was a result of the factors noted above.

*Gain on Variable Interest Entity Deconsolidation:* Gain on variable interest entity deconsolidation was \$3.6 million and \$0 for the years ended December 31, 2013 and 2012, respectively. As of December 31, 2013, the Company no longer reported MTI Micro as a VIE and the removal of the associated non-controlling interest from MTI's consolidated equity triggered this one-time gain. Refer to the Consolidated Financial Statements Note 2 regarding the deconsolidation of the VIE.

*Other (Expense) Income:* Other expense for the year ended December 31, 2013 was \$366 thousand compared to other income of \$162 thousand in 2012. The increase in expense of \$528 thousand primarily relates to the \$380 thousand allowance recorded on a related party note receivable with MTI Micro in 2013 and a reduction of the gain on sale of assets of \$200 thousand as 2012 included the sales of certain surplus equipment by MTI Micro, of which there was no comparable sales in 2013.

*Income Tax (Expense) Benefit:* Income tax expense for the years ended December 31, 2013 and 2012 was \$35 thousand and \$6 thousand, respectively. Our income tax rate for the years ended December 31, 2013 and 2012 was 1% and 0%, respectively. The year ended December 31, 2013 expense consists of minimal state tax expense of under \$1 thousand and \$35 thousand in deferred tax expense related to utilization of our deferred tax assets and an increase in the valuation allowance. The year ended December 31, 2012 expense consists of only state tax expense.

*Net Loss Attributed to Non-Controlling Interests (of MTI Micro):* The net loss attributed to non-controlling interests for the year ended December 31, 2013 increased by \$72 thousand to \$75 thousand in 2013 from \$3 thousand in 2012. This is the result of an increase in the net loss of MTI Micro from \$5 thousand in 2012 to \$143 thousand in 2013, partially offset by an increase in the percentage of ownership of the non-controlling interest of MTI Micro in 2013.

*Net Income (Loss):* Net income for the year ended December 31, 2013 was \$3.7 million compared to a net loss of \$2.1 million for the same period in 2012. The increase in net income of \$5.7 million for the year ended December 31, 2013 as compared to the same period in 2012 is primarily attributed to the \$3.6 million gain on variable interest entity deconsolidation in 2013 and an increase in MTI Instruments net income in 2013 of \$2.3 million. These are a result of the factors discussed above.



**Management's Plan, Liquidity and Capital Resources**

Several key indicators of our liquidity are summarized in the following table:

(Dollars in thousands)	<b>Years Ended</b>	
	<b>December 31,</b>	
	<b>2013</b>	<b>2012</b>
Cash	\$ 1,211	\$ 289
Working capital	1,771	1,350
Net income (loss) attributed to MTI	3,654	(2,086)
Net cash provided by (used in) operating activities	1,017	(1,506)
Purchase of property, plant and equipment	(108)	(17)

The Company has historically incurred significant losses, until 2012 the majority stemming from the direct methanol fuel cell product development and commercialization programs of MTI Micro, and had a consolidated accumulated deficit of \$118.5 million as of December 31, 2013. During the year ended December 31, 2013, the Company generated net income attributed to MTI of \$3.7 million and had cash provided by operating activities totaling \$1.0 million, and had working capital of \$1.8 million at December 31, 2013, a \$421 thousand increase from December 31, 2012. The increase in working capital was the result of the cost saving initiatives that we implemented in the second half 2012. Management believes that the reorganized Company currently has adequate resources to avoid any other cost cutting measures that could adversely affect the business. As of December 31, 2013, we had no debt, no outstanding commitments for capital expenditures and approximately \$1.2 million of cash available to fund our operations.

If production levels rise at MTI Instruments, additional capital equipment may be required in the foreseeable future. We expect to spend approximately \$250 thousand on capital equipment and \$1.5 million in research and development on MTI Instruments' products during 2014. We expect to finance any future expenditures and continue funding our operations from our current cash position and our projected 2014 cash flow pursuant to management's current plan. We may also seek to supplement our resources through sales of stock or assets. Besides the line of credit at MTI Instruments, the Company has no other commitments for funding future needs of the organization at this time and such additional financing during 2014, if required, may not be available to us on acceptable terms or at all.

While it cannot be assured, management believes that, due in part to our current working capital level, the aforementioned cost reductions implemented in the second half of 2012, recent replacements in sales staff and projected inventory reductions, the Company should continue the positive cash flows it experienced during 2013 to fund the Company's active operations for the foreseeable future. However, if near-term revenue estimates are delayed or missed, the Company may need to implement additional steps to ensure liquidity including, but not limited to, the deferral of planned capital spending, postponing anticipated new hires and/or delaying existing or pending product development initiatives. Such steps, if required, could potentially have a material and adverse effect on our business, results of operations and financial condition.

### ***Line of Credit***

On September 20, 2011, MTI Instruments entered into a working capital line of credit with First Niagara Bank, N.A. MTI Instruments may borrow from time to time up to \$400 thousand to support its working capital needs. The note is payable upon demand, and the interest rate on the note is equal to the prime rate with a floor of 4.0% per annum. The note is secured by a lien on all of the assets of MTI Instruments and is guaranteed by the Company. The line of credit was renewed on September 23, 2013. The line of credit is subject to a review date of June 30, 2014. Under the line of credit, MTI Instruments is required to maintain a line balance of \$0 for thirty consecutive days during each calendar year. As of December 31, 2013 and December 31, 2012 there were no amounts outstanding under the line of credit.

### ***Backlog, Inventory and Accounts Receivable***

At December 31, 2013, the Company's order backlog was \$198 thousand, compared to \$1.6 million at December 31, 2012. The decrease in backlog was due to lower bookings under existing US Air Force contracts, higher shipping levels during 2013 and \$591 thousand of deferred revenue, which was in the backlog at December 31, 2012.



Our inventory turnover ratios and average accounts receivable days outstanding for the years ended December 31, 2013 and 2012 and their changes are as follows:

	<b>Years Ended December</b>		
	<b>31, 2013</b>	<b>2012</b>	<b>Change</b>
Inventory turnover	3.8	2.1	1.7
Average accounts receivable days outstanding	42	41	1

The increase in inventory turns is due to a 29% decrease in average inventory balances on a 41.6% rise in sales during the comparable periods.

The average accounts receivable days outstanding increased one day in 2013 compared with 2012 due to an increase in direct sales to Asia, rather than through distributors.

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

We have no off balance sheet arrangements.

### **Critical Accounting Policies and Significant Judgments and Estimates**

The prior discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. Note 2 of the Consolidated Financial Statements included in this Annual Report on Form 10-K includes a summary of our most significant accounting policies. The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosure of assets and liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventories, income taxes, share-based

compensation and derivatives. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Periodically, our management reviews our critical accounting estimates with the Audit Committee of our Board of Directors.

The significant accounting policies that we believe are most critical to aid in fully understanding and evaluating our consolidated financial statements include the following:

**Revenue Recognition.** We recognize product revenue when there is persuasive evidence of an arrangement, delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor, and we have determined that collection of a fixed fee is probable, all of which occur upon shipment of the product. If the product requires that we provide installation, all revenue related to the product is deferred and recognized upon the completion of the installation.

**Inventory.** Inventory is valued at the lower of cost or the current estimated market value of the inventory. We periodically review inventory quantities on hand and record a provision for excess or obsolete inventory based primarily on our estimated forecast of product demand, as well as based on historical usage. Demand and usage for products and materials can fluctuate significantly. A significant decrease in demand for our products could result in a short-term increase in the cost of inventory purchases and an increase of excess inventory quantities on hand. Therefore, although we make every effort to assure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand could have a significant impact on the value of our inventory and our reported operating results.

**Share-Based Payments.** We grant options to purchase our common stock and award restricted stock to our employees and directors under our equity incentive plans. The benefits provided under these plans are share-based payments subject to the appropriate accounting provisions regarding Share-Based Payments. Effective January 1, 2006, we use the fair value method of accounting with the modified prospective application, which provides for certain changes to the method for valuing share-based compensation. The valuation provisions apply to new awards and to awards that are outstanding on the effective date and subsequently modified. Under the modified prospective application, prior periods are not revised for comparative purposes.

We estimate the fair value of share-based awards on the date of grant using a Black-Scholes option-pricing model. The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate, and expected dividends.



If factors change and we employ different assumptions for the accounting methodology during future periods, the compensation expense that we record may differ significantly from what we have recorded in the current period. Therefore, we believe it is important for investors to be aware of the high degree of subjectivity involved when using option-pricing models to estimate share-based compensation. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions, are fully transferable and do not cause dilution. Because our share-based payments have characteristics significantly different from those of freely traded options, and because changes in the subjective input assumptions can materially affect our estimates of fair values, in our opinion, existing valuation models, including the Black-Scholes Option Pricing model, may not provide reliable measures of the fair values of our share-based compensation. Consequently, there is a risk that our estimates of the fair values of our share-based compensation awards on the grant dates may bear little resemblance to the intrinsic values realized upon the exercise, expiration, cancellation, or forfeiture of those share-based payments in the future. Certain share-based payments, such as employee stock options, may expire worthless or otherwise result in zero intrinsic value as compared to the fair values originally estimated on the grant date and expensed in our financial statements. Alternatively, value may be realized from these instruments that are significantly in excess of the fair values originally estimated on the grant date and expensed in our financial statements. There currently is neither a market-based mechanism nor other practical application to verify the reliability and accuracy of the estimates stemming from these valuation models, nor a way to compare and adjust the estimates to actual values. Although the fair value of employee share-based awards is determined using a qualified option-pricing model, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction. Estimates of share-based compensation expenses are significant to our financial statements, but these expenses are based on the aforementioned option valuation model and will never result in our payment of cash.

Theoretical valuation models and market-based methods are evolving and may result in lower or higher fair value estimates for share-based compensation. The timing, readiness, adoption, general acceptance, reliability, and testing of these methods is uncertain. Sophisticated mathematical models may require voluminous historical information, modeling expertise, financial analyses, correlation analyses, integrated software and databases, consulting fees, customization, and testing for adequacy of internal controls.

For purposes of estimating the fair value of stock options granted during the twelve months ended December 31, 2013 using the Black-Scholes model, we used the historical volatility of our stock for the expected volatility assumption input to the Black-Scholes model, consistent with the accounting guidance. The risk-free interest rate is based on the risk-free zero-coupon rate for a period consistent with the expected option term at the time of grant. We do not currently pay nor do we anticipate paying dividends, but we are required to assume a dividend yield as an input to the Black-Scholes model. As such, we use a zero dividend rate. The expected option term is calculated as an average time to forfeiture for all grants.

**Income Taxes.** As part of the process of preparing our consolidated financial statements, we calculate income taxes for each of the jurisdictions in which we operate. This involves estimating actual current taxes due together with assessing temporary differences resulting from differing treatment for tax and accounting purposes that are recorded as deferred tax assets and liabilities. We periodically evaluate deferred tax assets, net operating loss carryforwards and tax credit carryforwards to determine their recoverability based primarily on our ability to generate future taxable income.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities, and any valuation allowance recorded against our net deferred tax assets. We considered all available evidence, both positive and negative, such as historical levels of income and future forecasts of taxable income amongst other items in determining our valuation allowance. In addition, our assessment requires us to schedule future taxable income in accordance with accounting standards that address income taxes to assess the appropriateness of a valuation allowance, which further requires the exercise of significant management judgment.

We account for taxes in accordance with the asset and liability method of accounting for income taxes. Under this method, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. The impact of our reassessment of our tax positions for these standards did not have a material impact on our results of operations, financial condition, or liquidity.

### **Recent Accounting Pronouncements**

There are no recently adopted or new accounting pronouncements that have had, or that we expect to have, a material impact on our financial statements.

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

Not applicable.



## **Item 8: Financial Statements and Supplementary Data**

The Company's Consolidated Financial Statements begin on page F-1 and are incorporated in this Item 8 by reference.

## **Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Not applicable.

## **Item 9A: Controls and Procedures**

### **(a) Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of MTI's disclosure controls and procedures as of December 31, 2013. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. We recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and we necessarily apply our judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the valuation of our disclosure controls and procedures as of December 31, 2013, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

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

Management of our Company is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control over financial

reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

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

Under the supervision and with the participation of our management, including the principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria set forth in *Internal Control Integrated Framework* (1992 version) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation using the criteria set forth in *Internal Control Integrated Framework*, Management has concluded that our internal control over financial reporting was effective as of December 31, 2013.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Our report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the SEC that permit us to provide only Management's Report in this annual report.

/s/ Kevin G. Lynch  
Chief Executive Officer  
(Principal Executive Officer)

/s/ Frederick W. Jones  
Chief Financial Officer  
(Principal Financial Officer)

### **(c) Changes in Internal Control over Financial Reporting**

There have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during our fiscal quarter ended December 31, 2013 that have materially affected, or are reasonable likely to materially affect, our internal control over financial reporting.

### **Item 9B: Other Information**

No information was required to be disclosed in a current Report on Form 8-K during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K that has not been reported.

## **PART III**

### **Item 10: Directors, Executive Officers and Corporate Governance**

Code of Ethics: We have adopted a Code of Ethics for employees, officers and directors. A copy of the Code of Ethics is available on our website at <http://www.mechtech.com> under Investor Relations, Corporate Governance.

The remaining information required by this Item 10 is incorporated herein by reference to the information appearing under the captions Information about our Directors, Executive Officers, Board of Director Meetings and Committees Audit Committee and Section 16(a) Beneficial Ownership Reporting Compliance in our definitive Proxy Statement for our 2014 Annual Meeting of Stockholders to be filed with the SEC on or before April 25, 2014.

### **Item 11: Executive Compensation**

The information required by this Item 11 is incorporated herein by reference to the information appearing under the caption Executive Compensation in the Company's definitive Proxy Statement for our 2014 Annual Meeting of Stockholders to be filed with the SEC on or before April 25, 2014.

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

#### **Equity Compensation Plans**

As of December 31, 2013, we have four equity compensation plans, each of which was originally approved by our stockholders; the Mechanical Technology, Incorporated 1996 Stock Incentive Plan (the 1996 Plan), 1999 Employee Stock Incentive Plan (the 1999 Plan), 2006 Equity Incentive Plan (the 2006 Plan) and the Mechanical Technology Incorporated 2012 Equity Incentive Plan (the 2012 Plan). The 2006 Plan was amended and restated and approved by our Board of Directors in 2011 and 2009. We refer collectively to these as the Plans. See Note 12 of our Consolidated

Financial Statements in this Annual Report on Form 10-K for a description of these Plans.

The following table presents information regarding these plans as of December 31, 2013:

Plan Category	Number of Securities To	Weighted Average	Number of Securities
	Be Issued Upon Exercise of Outstanding Options, Warrants, Rights <sup>(1)</sup> (a)		Exercise Price of Outstanding Options, Warrants, Rights (b)
Equity compensation plans approved by security holders	464,600	\$ 0.89	141,374
Equity compensation plans not approved by security holders <sup>(3)</sup>	120,782	1.35	-0-

(1) Under the 1996, 1999, 2006 and 2012 Plans, the securities available under the Plans for issuance and issuable pursuant to exercises of outstanding options may be adjusted in the event of a change in outstanding stock by reason of stock dividend, stock splits, reverse stock splits, etc.

(2) The 2012 Plan is the only plan under which future awards can currently be made.

(3) Includes options outstanding under the 2006 Plan, which was amended by our Board of Directors without stockholder approval in 2009 and 2011 to increase the number of shares available for issuance thereunder. Under the 2006 Plan, the Board of Directors is authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others. See Note 12 of our Consolidated Financial Statements in this Annual Report on Form 10-K for a further description of this Plan.

The remaining information required by this Item 12 is incorporated herein by reference to information appearing under the caption "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in our definitive Proxy Statement for our 2014 Annual Meeting of Stockholders to be filed with the SEC on or before April 25, 2014.

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

The information required by this Item 13 is incorporated herein by reference to the information appearing under the captions Certain Relationships and Related Transactions and Information about our Directors in our definitive Proxy Statement for the 2014 Annual Meeting of Stockholders to be filed with the SEC on or before April 25, 2014.

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

The information required by this Item 14 is incorporated herein by reference to the information appearing under the caption "Independent Registered Public Accounting Firms" in our definitive Proxy Statement for the 2014 Annual Meeting of Stockholders to be filed with the SEC on or before April 25, 2014.

## PART IV

### Item 15: Exhibits, Financial Statement Schedules

**15(a) (1) Financial Statements:** The financial statements filed herewith are set forth on the Index to Consolidated Financial Statements on page F-1 of the separate financial section which accompanies this Report, which is incorporated herein by reference.

**15(a) (2) Financial Statement Schedules:** Financial statement schedules not listed have been omitted because they are either not required, not applicable, or the information has been included elsewhere in the consolidated financial statements or notes thereto.

**15(a) (3) Exhibits:** The exhibits listed in the Exhibit Index below are filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description
3.1	Certificate of Incorporation of the registrant, as amended and restated (Incorporated by reference from Exhibit 3.1 of the Company's Form 10-K Report for the year ended December 31, 2007).
3.2	Certificate of Amendment of the Certificate of Incorporation of the registrant (Incorporated by reference from Exhibit 3.2 of the Company's Form 8-K Report filed May 15, 2008).
3.3	Amended and Restated By-Laws of the registrant (Incorporated by reference from Exhibit 3.3 of the Company's Form 8-K Report filed December 14, 2007).
10.1	Mechanical Technology, Incorporated 1996 Stock Incentive Plan (Incorporated by reference from Appendix A of the Company's Definitive Proxy Statement Schedule 14A filed November 19, 1996).*
10.2	Mechanical Technology, Incorporated 1999 Employee Stock Incentive Plan (Incorporated by reference from Exhibit A of the Company's Proxy Statement Schedule 14A filed February 13, 1999).*

Edgar Filing: MECHANICAL TECHNOLOGY INC - Form 10-K

- 10.3 Form of Restricted Stock Agreement for the 1996 and 1999 Mechanical Technology, Inc. Stock Incentive Plans (Incorporated by reference from Exhibit 10.140 of the Company's Form 8-K Report filed May 18, 2006).\*
- 10.4 Mechanical Technology, Incorporated Amended and Restated 2006 Equity Incentive Plan (Incorporated by reference from Exhibit 10.1 of the Company's Form S-8 Registration Statement filed September 18, 2009).\*
- 10.5 Mechanical Technology, Incorporated Amended and Restated 2006 Equity Incentive Plan (Incorporated by reference from Exhibit 10.1 of the Company's Form S-8 Registration Statement (File No. 333-175406) filed July 8, 2011).\*
- 10.6 Form of Restricted Stock Agreement for Mechanical Technology, Incorporated Amended and Restated 2006 Equity Incentive Plan (Incorporated by reference from Exhibit 10.2 of the Company's Form 8-K Report filed July 11, 2011).\*
- 10.7 Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.1 of the Company's Form S-8 Registration Statement (File No. 333-182730) filed July 18, 2012).\*
- 10.8 Form of Restricted Stock Agreement Notice for Board of Directors and Employees for Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.2 of the Company's Form 10-Q Report for the quarter ended June 30, 21012).\*
- 10.9 Form of Incentive Stock Option Notice for Employees for Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.3 of the Company's Form 10-Q Report for the quarter ended June 30, 21012).\*
- 10.10 Form of Non-Qualified Stock Option Notice for Employees for Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.3 of the Company's Form 10-Q Report for the quarter ended June 30, 21012).\*
- 10.11 Form of Non-Qualified Stock Option Notice for Board of Directors for Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.3 of the Company's Form 10-Q Report for the quarter ended June 30, 21012).\*
- 10.12 MTI MicroFuel Cells Inc. 2009 Stock Plan (Incorporated by reference from Exhibit 10.167 of the Company's Form 10-K Report for the year ended December 31, 2009).\*
- 10.13 Lease dated August 10, 1999 between Carl E. Touhey and Mechanical Technology, Inc. (Incorporated by reference from Exhibit 10.38 of the Company's Form 10-K Report for the fiscal year ended September 30, 1999).
- 10.14 Amendment No. 1 to Lease Agreement Between Mechanical Technology Inc. and Carl E. Touhey dated September 29, 2009 (Incorporated by reference from Exhibit 10.166 of the Company's Form 10-K Report for the year ended December 31, 2009).



- 10.15 Lease dated April 2, 2001 between Kingfisher, LLC and Mechanical Technology, Inc. (Incorporated by reference from Exhibit 10.43 of the Company's Form 10-K Report for the fiscal year ended September 30, 2001).
- 10.16 First Amendment to lease dated March 13, 2003 between Kingfisher, LLC and Mechanical Technology, Inc. (Incorporated by reference from Exhibit 10.44 of the Company's Form 10-K Report for the year ended December 31, 2002).
- 10.17 Second Amendment to lease dated December 12, 2005 between Kingfisher, LLC and Mechanical Technology, Incorporated (Incorporated by reference from Exhibit 10.132 of the Company's Form 8-K Report filed December 13, 2005).
- 10.18 Third Amendment to lease dated August 7, 2006 between Kingfisher, LLC and Mechanical Technology, Incorporated (Incorporated by reference from Exhibit 10.142 of the Company's Form 10-Q Report for the quarter ended June 30, 2006).
- 10.19 Fourth Amendment to lease dated August 6, 2007 between Kingfisher LLC and Mechanical Technology, Incorporated (Incorporated by reference from Exhibit 10.148 of the Company's Form 10-Q Report for the quarter ended June 30, 2007).
- 10.20 Fifth Amendment of lease dated March 31, 2009 by and between Kingfisher, LLC and Mechanical Technology, Incorporated (Incorporated by reference from Exhibit 10.165 of the Company's Form 10-K Report for the year ended December 31, 2009).
- 10.21 Sixth Amendment to Lease dated January 1, 2010 by and between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.21 of the Company's Form 10-K Report for the year ended December 31, 2012).
- 10.22 Seventh Amendment to Lease Agreement by and between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.168 of the Company's Form 10-Q Report for the quarter ended June 30, 2010).
- 10.23 Lease Extension and Modification Agreement dated April 19, 2011, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.19 of the Company's Form 10-Q Report for the quarter ended March 31, 2011).
- 10.24 Lease Extension and Modification Agreement II dated July 18, 2011, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.20 of the Company's Form 10-Q Report for the quarter ended June 30, 2011).
- 10.25 Supplemental Lease Extension and Modification Agreement dated September 29, 2011, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.1 of the Company's Form 10-Q Report for the quarter ended September 30, 2011).

Edgar Filing: MECHANICAL TECHNOLOGY INC - Form 10-K

- 10.26 Supplemental Lease Extension and Modification Agreement II dated March 14, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.26 of the Company's Form 10-K Report for the year ended December 31, 2012).
- 10.27 Supplemental Lease Re-Instatement and Modification Agreement dated April 12, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.27 of the Company's Form 10-K Report for the year ended December 31, 2012).
- 10.28 Supplemental Lease Extension and Modification Agreement III dated December 14, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.28 of the Company's Form 10-K Report for the year ended December 31, 2012).
- 10.29 Supplemental Lease Extension and Modification Agreement dated June 14, 2013, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. (Incorporated by reference from Exhibit 10.1 of the Company's Form 10-Q Report for the quarter ended June 30, 2013).
- 10.30 Employment Agreement dated May 4, 2006 between Peng K. Lim and Mechanical Technology, Incorporated (Incorporated by reference from Exhibit 10.139 of the Company's Form 8-K Report filed May 9, 2006).\*
- 10.31 Amended and Restated Employment Agreement dated December 31, 2008 between Peng K. Lim and Mechanical Technology, Inc. (Incorporated by reference from Exhibit 10.155 of the Company's Form 10-K Report for the year ended December 31, 2008).\*
- 10.32 Letter Agreement dated February 24, 2009 between Peng K. Lim and Mechanical Technology, Inc. (Incorporated by reference from Exhibit 10.159 of the Company's Form 10-K Report for the year ended December 31, 2008).\*
- 10.33 Line of Credit Demand Grid Note dated September 20, 2011 between MTI Instruments, Inc. and First Niagara Bank, N.A. (Incorporated by reference from Exhibit 10.2 of the Company's Form 10-Q Report for the quarter ended September 30, 2011).
- 10.34 Guaranty Agreement dated September 20, 2011 between Mechanical Technology, Incorporated and First Niagara Bank, N.A. (Incorporated by reference from Exhibit 10.3 of the Company's Form 10-Q Report for the quarter ended September 30, 2011).
- 10.35 Security Agreement dated September 20, 2011 between MTI Instruments, Inc. and First Niagara Bank, N.A. (Incorporated by reference from Exhibit 10.4 of the Company's Form 10-Q Report for the quarter ended September 30, 2011).
- 10.36 MTI MicroFuel Cells Inc. Form of Convertible Note and Warrant Purchase Agreement dated September 18, 2008 (Incorporated by reference from Exhibit 10.153 of the Company's Form 10-Q Report for the quarter ended September 30, 2008).
- 10.37 MTI MicroFuel Cells Inc. Amendment No. 1 to Convertible Note and Warrant Purchase Agreement, Security Agreement and Secured Convertible Promissory Notes and Consent dated February 20, 2009 (Incorporated by reference from Exhibit 10.158 of the Company's Form 10-K Report for the year ended December 31, 2008).
- 10.38 MTI MicroFuel Cells Inc. Amendment No. 2 to Convertible Note and Warrant Purchase Agreement, Security Agreement and Secured Convertible Promissory Notes and Consent dated April 15, 2009

Edgar Filing: MECHANICAL TECHNOLOGY INC - Form 10-K

(Incorporated by reference from Exhibit 10.1 of the Company's Form 10-Q Report for the quarter ended June 30, 2009).

- 10.39 Secured Convertible Promissory Note Negotiated Conversion Agreement, dated December 9, 2009, by and among the Company, MTI Micro and the Bridge Investors (Incorporated by reference from Exhibit 10.1 of the Company's Form 8-K Report filed December 15, 2009).
- 10.40 Form of MTI Micro Common Stock Purchase Warrant (Incorporated by reference from Exhibit 10.2 of the Company's Form 8-K Report filed December 15, 2009).
- 10.41 Common Stock and Warrant Purchase Agreement, dated January 11, 2010, by and among MTI MicroFuel Cells Inc. and Counter Point Ventures Fund II, L.P. (Incorporated by reference from Exhibit 10.1 of the Company's Form 8-K Report filed January 14, 2010).
- 10.42 Form of MTI Micro Common Stock Warrant (Incorporated by reference from Exhibit 10.2 of the Company's Form 8-K Report filed January 14, 2010).
- 10.43 Amendment No. 1, dated February 9, 2011, to the Common Stock and Warrant Purchase Agreement, dated January 11, 2010, by and between MTI MicroFuel Cells Inc. and Counter Point Ventures Fund II, L.P. (Incorporated by reference from Exhibit 10.1 of the Company's Form 8-K Report filed February 11, 2011).
- 10.44 Form of MTI Micro Common Stock Warrant (Incorporated by reference from Exhibit 10.2 of the Company's Form 8-K Report filed February 11, 2011).
- 10.45 Amendment No. 2, dated September 23, 2011, to the Common Stock and Warrant Purchase Agreement, dated January 11, 2010, as amended February 9, 2011, by and between MTI MicroFuel Cells Inc. and Counter Point Ventures Fund II, L.P. (Incorporated by reference from Exhibit 10.1 of the Company's Form 8-K Report filed September 28, 2011).
- 21 Subsidiaries of the Registrant
- 23.1 Consent of Independent Registered Public Accounting Firm UHY LLP.
- 31.1 Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

All other exhibits for which no other filing information is given are filed herewith.

\* Represents management contract or compensation plan or arrangement.

## Signatures

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

### MECHANICAL TECHNOLOGY, INCORPORATED

Date: March 6, 2014

By: /s/ Kevin G. Lynch  
Kevin G. Lynch  
Chief Executive Officer

### POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Kevin G. Lynch and Frederick W. Jones such person's true and lawful attorney-in-fact and agent with full power of substitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Kevin G. Lynch</u> Kevin G. Lynch	Chairman, Chief Executive Officer and Director (Principal Executive Officer)	March 6, 2014
<u>/s/ Frederick W. Jones</u> Frederick W. Jones	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	March 6, 2014

<u>/s/ Thomas J. Marusak</u> Thomas J. Marusak	Director	March 6, 2014
<u>/s/ David C. Michaels</u> David C. Michaels	Director	March 6, 2014
<u>/s/ E. Dennis O Connor</u> E. Dennis O Connor	Director	March 6, 2014
<u>/s/ William P. Phelan</u> William P. Phelan	Director	March 6, 2014
<u>/s/ Walter L. Robb</u> Dr. Walter L. Robb	Director	March 6, 2014

**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	Page
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Financial Statements:	
Balance Sheets as of December 31, 2013 and 2012	F-3
Statements of Operations for the Years Ended December 31, 2013 and 2012	F-4
Statements of Changes in Equity for the Years Ended December 31, 2013 and 2012	F-5
Statements of Cash Flows for the Years Ended December 31, 2013 and 2012	F-6
Notes to Consolidated Financial Statements	F-7 to F-25

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and  
Stockholders of Mechanical Technology, Incorporated

We have audited the accompanying consolidated balance sheets of Mechanical Technology, Incorporated as of December 31, 2013 and 2012, and the related consolidated statements of operations, changes in equity, and cash flows for each of the years in the two-year period ended December 31, 2013. The Company's management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Mechanical Technology, Incorporated as of December 31, 2013 and 2012, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2013 in conformity

with accounting principles generally accepted in the United States of America.

/s/UHY LLP

Albany, New York

March 6, 2014



**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS****December 31, 2013 and 2012**

(Dollars in thousands, except per share)

	<b>December 31, 2013</b>	<b>2012</b>
<b>Assets</b>		
<b>Current Assets:</b>		
Cash	\$ 1,211	\$ 289
Accounts receivable	824	1,674
Inventories	742	1,118
Deferred income taxes, net	25	16
Prepaid expenses and other current assets	111	100
Total Current Assets	2,913	3,197
<b>Deferred income taxes, net</b>	<b>1,475</b>	<b>1,519</b>
<b>Property, plant and equipment, net</b>	<b>146</b>	<b>129</b>
Total Assets	\$ 4,534	\$ 4,845
<b>Liabilities and Equity</b>		
<b>Current Liabilities:</b>		
Accounts payable	\$ 149	\$ 208
Accrued liabilities	993	1,048
Deferred revenue		591
Total Current Liabilities	1,142	1,847
<b>Commitments and Contingencies (Note 14)</b>		
<b>Equity:</b>		
Common stock, par value \$0.01 per share, authorized 75,000,000;		
6,261,975 issued in both 2013 and 2012	63	63
Additional paid-in-capital	135,612	135,561
Accumulated deficit	(118,529)	(122,183)
Common stock in treasury, at cost, 1,005,092 shares in both 2013 and 2012	(13,754)	(13,754)
Total MTI stockholders equity (deficit)	3,392	(313)
Non-controlling interest		3,311
Total Equity	3,392	2,998
Total Liabilities and Equity	\$ 4,534	\$ 4,845

The accompanying notes are an integral part of the consolidated financial statements.



**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS****For the Years Ended December 31, 2013 and 2012**

(Dollars in thousands, except per share)

	<b>Year Ended December 31, 2013</b>	<b>Year Ended December 31, 2012</b>
Product revenue	\$ 8,352	\$5,900
Operating costs and expenses:		
Cost of product revenue	3,254	2,967
Unfunded research and product development expenses	1,320	1,364
Selling, general and administrative expenses	3,417	3,813
Operating income (loss)	361	(2,244)
Interest expense		(1)
Gain on variable interest entity deconsolidation	3,619	
Other (expense) income, net	(366)	162
Income (loss) before income taxes and non-controlling interest	3,614	(2,083)
Income tax expense	(35)	(6)
Net income (loss)	3,579	(2,089)
Plus: Net loss attributed to non-controlling interest	75	3
Net income (loss) attributed to MTI	\$3,654	\$(2,086)
Income (loss) per share attributable to MTI (Basic)	\$0.70	\$(0.40)
Income (loss) per share attributable to MTI (Diluted)	\$0.69	\$(0.40)
Weighted average shares outstanding (Basic)	5,256,883	5,256,227
Weighted average shares outstanding (Diluted)	5,308,498	5,256,227

The accompanying notes are an integral part of the consolidated financial statements.

**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY****For the Years Ended December 31, 2013 and 2012**

	Common Stock				Treasury Stock		Total MTI Stockholders Equity (Deficit)	Non- Controlling Interest (NCI)	Total Equity
	Shares	Amount	Additional Paid- in Capital	Accumulated Deficit	Shares	Amount			
<b>January 1, 2012</b>	6,259,975	\$ 63	\$ 135,389	\$ (120,097)	1,005,092	\$ (13,754)	\$ 1,601	\$ 3,314	\$ 4,915
Net loss attributed to MTI	-	-	-	(2,086)	-	-	(2,086)	-	(2,086)
Stock based compensation	-	-	171	-	-	-	171	-	171
Issuance of shares - common stock	2,000	-	1	-	-	-	1	-	1
Net loss attributed to NCI	-	-	-	-	-	-	-	(3)	(3)
<b>December 31, 2012</b>	6,261,975	\$ 63	\$ 135,561	\$ (122,183)	1,005,092	\$ (13,754)	\$ (313)	\$ 3,311	\$ 2,998
Net income attributed to MTI	-	-	-	3,654	-	-	3,654	-	3,654
Stock based compensation	-	-	51	-	-	-	51	-	51
Net loss attributed to NCI	-	-	-	-	-	-	-	(75)	(75)
Equity contribution to NCI	-	-	-	-	-	-	-	25	25
Variable interest entity deconsolidation	-	-	-	-	-	-	-	(3,261)	(3,261)
<b>December 31, 2013</b>	6,261,975	\$ 63	\$ 135,612	\$ (118,529)	1,005,092	\$ (13,754)	\$ 3,392	\$ -	\$ 3,392

The accompanying notes are an integral part of the consolidated financial statements.



**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****For the Years Ended December 31, 2013 and 2012**

(Dollars in thousands)	<b>Year Ended December 31, 2013</b>	<b>Year Ended December 31, 2012</b>
<b>Operating Activities</b>		
Net income (loss)	\$ 3,579	\$(2,089)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Gain on variable interest entity deconsolidation	(3,619)	
Depreciation	91	129
Gain on disposal of equipment	(13)	(126)
Deferred income taxes	35	
Stock based compensation	51	172
Bad debt expense		2
Provision for excess and obsolete inventories	(159)	103
Provision for related party note receivable	380	
Changes in operating assets and liabilities:		
Accounts receivable	850	205
Inventories	535	(264)
Prepaid expenses and other current assets	(11)	2
Accounts payable	(56)	17
Deferred revenue	(591)	533
Accrued liabilities	(55)	(190)
Net cash provided by (used in) operating activities	1,017	(1,506)
<b>Investing Activities</b>		
Cash transfer from variable interest entity deconsolidation	(25)	
Purchases of equipment	(108)	(17)
Proceeds from sale of equipment	13	143
Net cash (used in) provided by investing activities	(120)	126

**Financing Activities**

Proceeds from the issuance of stock due to the exercise of warrants	25	
Net cash provided by financing activities	25	
Increase (decrease) in cash	922	(1,380)
Cash - beginning of period	289	1,669
Cash - end of period	\$1,211	\$289

The accompanying notes are an integral part of the consolidated financial statements.

F - 6

---

## MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 1. Nature of Operations

##### *Description of Business*

Mechanical Technology, Incorporated, (MTI or the Company), a New York corporation, was incorporated in 1961. The Company's core business is conducted through MTI Instruments, Inc. (MTI Instruments), a wholly-owned subsidiary and the sole component of the Company's Test and Measurement Instrumentation segment. Through the year ended December 31, 2013, the Company also operated in a New Energy segment with business conducted through MTI MicroFuel Cells, Inc. (MTI Micro). On December 31, 2013, as a result of a stock warrant exercise, the Company transferred management of MTI Micro to Dr. Walter L. Robb (a member of the Company's and MTI Micro's board of directors) and his new management team. The Company is consequently no longer reporting MTI Micro as a variable interest entity (VIE) as of the close of business on December 31, 2013 (date of MTI Micro deconsolidation).

MTI Instruments was incorporated in New York on March 8, 2000 and is a supplier of precision linear displacement solutions, vibration measurement and system balancing systems, and wafer inspection tools, consisting of electronic gauging instruments for position, displacement and vibration application within the industrial manufacturing/production markets, as well as the research, design and process development market; tensile stage systems for materials testing at academic and industrial research settings; and engine vibration analysis systems for both military and commercial aircraft. These tools, systems and solutions are developed for markets and applications that require the precise measurements and control of products, processes, and the development and implementation of automated manufacturing, assembly, and consistent operation of complex machinery.

MTI Micro was incorporated in Delaware on March 26, 2001, and, until its operations were suspended in late 2011, had been developing a handheld energy-generating device to replace current lithium-ion and similar rechargeable battery systems in many handheld electronic devices for the military and consumer markets.

##### *Liquidity*

The Company has incurred significant losses primarily due to its past efforts to fund MTI Micro's direct methanol fuel cell product development and commercialization programs, and has an accumulated deficit of approximately \$118.5 million and working capital of approximately \$1.8 million at December 31, 2013.

The Company restructured the operations of the Company during the second half of 2012, which included the departure of its CEO, staffing adjustments to its MTI Instrument's sales force and reduction in MTI Instrument's production and development personnel. Based on the Company's projected cash requirements for operations and capital expenditures for 2014, its current available cash of approximately \$1.2 million, the \$400 thousand available from its existing line of credit at MTI Instruments, current cash flow requirements and revenue and expense projections, management believes it will have adequate resources to fund operations and capital expenditures for at least the next twelve months.

However, the Company may need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- 1) Reduce its current expenditure run rate;
- 2) Defer its capital expenditures;
- 3) Defer its hiring plans; and
- 4) Secure additional debt or equity financing.

There is no guarantee that such resources will be available to the Company on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that the Company will be able to reduce its expenditure run-rate, defer its capital expenditures or hiring plans without materially and adversely effecting its business.

## **2. Accounting Policies**

### ***Principles of Consolidation***

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, MTI Instruments. The consolidated financial statements also include the accounts of a former VIE, MTI Micro, through December 31, 2013. The Company was considered the primary beneficiary of the VIE until December 31, 2013, when the Company transferred management of MTI Micro to Dr. Robb and his new management team. For purposes of these consolidated financial statements, the deconsolidation of MTI Micro was effective as of the close of business on December 31, 2013. All intercompany balances and transactions are eliminated in consolidation. The Company reflected the impact of the equity securities issuances in its investment in a VIE and additional paid-in-capital accounts for the dilution or anti-dilution of its ownership interest in the VIE.

F - 7

---

The Company performed an analysis under the VIE model and confirmed that MTI Micro was a VIE until December 31, 2013, when the Company transferred management of MTI Micro to Dr. Robb and his new management team. To perform its evaluation, the Company assessed if the entity, MTI Micro, has equity at risk and also assessed which variable interest holder is the primary beneficiary of MTI Micro.

One of the criteria for determining whether an entity is a VIE is determining if the entity, MTI Micro, has equity at risk. Operations at MTI Micro have been suspended since 2011 and on December 30, 2013, MTI Micro had no remaining cash available to fund activities. As a result, the Company's management concluded that MTI Micro did not have equity at risk to fund operations into its next phase of development.

Another criteria for determining whether an entity is a VIE is determining which variable interest holder is the primary beneficiary of the entity. The Company's analysis to determine the primary beneficiary of MTI Micro focused primarily on determining which variable interest holder has the power to direct the activities that would have the most significant impact on the financial performance of MTI Micro. MTI Micro is governed by its own board of directors and significant decisions are determined by a majority vote of this board. The Company does not have control of the MTI Micro board of directors, but does retain one board seat on the existing MTI Micro board. Under the Articles of Incorporation of MTI Micro, each share of MTI Micro stock is entitled to a vote, and further, holders of a majority of the shares of MTI Micro's common stock have the ability to reconstitute the board. Even though Dr. Robb and Counter Point Ventures Fund II, LP (Counter Point), a venture capital fund sponsored and managed by Dr. Robb, combined to control a majority of the outstanding common stock and had the ability to elect the directors of MTI Micro and decide whether to continue to seek business opportunities for MTI Micro or instead seek opportunities to sell the intellectual property before December 31, 2013, they had previously not elected to do so. On December 31, 2013, in order to provide MTI Micro with cash to continue activities, Dr. Robb exercised a portion of his outstanding MTI Micro warrants to purchase 357,143 shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. In conjunction with this transaction, the Company transferred management of MTI Micro to Dr. Robb and his new management team. Subsequently, Mr. Kevin G. Lynch (the Company's Chief Executive Officer) resigned as Chief Executive Officer of MTI Micro and Mr. Frederick W. Jones (the Company's Chief Financial Officer) resigned as Secretary and Treasurer of MTI Micro. Mr. Lynch remains on the MTI Micro board of directors; representing the Company's board seat. As a result, the Company's management reassessed and determined that the Company is no longer the primary beneficiary of MTI Micro due to the change in management of MTI Micro, and as such, should deconsolidate its former VIE, MTI Micro, in the Company's consolidated financial statements as of the close of business on December 31, 2013.

The Company determined that the effect of the deconsolidation of the VIE would be to remove MTI Micro in the consolidated balance sheet as of December 31, 2013 but include MTI Micro's activity in the consolidated statement of operations for the year ended December 31, 2013. Included in the consolidated statement of operations for the year ended December 31, 2013, is a \$3.6 million gain on VIE deconsolidation. This gain consists of the non-controlling

interest in MTI Micro of \$3.3 million as of December 31, 2013 and the \$357 thousand net deficit of MTI Micro as of December 31, 2013.

The following assets and liabilities of MTI Micro were not included in the consolidated balance sheet as of December 31, 2013 as a result of the VIE deconsolidation:

<b>(dollars in thousands)</b>	<b>2013</b>
Cash	\$25
Prepaid expenses and other current assets	1
Accounts payable	3
Related party note payable (see Note 15 for more detail)	380

The fair value of the Company's current non-controlling interest (NCI) in MTI Micro has been determined to be \$0 as of December 31, 2013 (date of MTI Micro deconsolidation) based on MTI Micro's net position and expected cash flows. In the future, the Company will record its investment in MTI Micro using the equity method of accounting, if applicable. As of December 31, 2013, the Company owned an aggregate of approximately 47.5% of MTI Micro's outstanding common stock, or 75,049,937 shares, and 53.3% of the common stock and warrants issued, which includes 32,904,136 warrants outstanding. As of December 31, 2013, Counter Point and Dr. Robb owned approximately 45.1% and 5.3%, respectively, of the outstanding common stock of MTI Micro or 40.3% and 4.3%, respectively, of the outstanding common stock and warrants issued of MTI Micro.

NCI is classified as equity in the consolidated financial statements. The consolidated statement of operations presents net income (loss) for both the Company and the non-controlling interests. The calculation of earnings per share is based on net income (loss) attributable to the Company.

### *Use of Estimates*

The consolidated financial statements of the Company have been prepared in accordance with United States of America Generally Accepted Accounting Principles (U.S. GAAP), which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.



### ***Fair Value of Financial Instruments***

The Company's financial instruments consist of cash, accounts receivable and accounts payable. The estimated fair values of these financial instruments approximate their carrying values at December 31, 2013 and 2012. The estimated fair values have been determined through information obtained from market sources, where available.

### ***Accounts Receivable and Allowance for Doubtful Accounts***

Trade accounts receivable are stated at the invoiced amount billed to customers and do not bear interest. An allowance for doubtful accounts, if necessary, represents the Company's best estimate of the amount of probable credit losses in its existing accounts receivable. The Company determines the allowance based on historical write-off experience and current exposures identified. The Company reviews its allowance for doubtful accounts monthly. Past due balances over 90 days and over a specified amount are reviewed individually for collectability. All other balances are reviewed on a pooled basis by type of receivable. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. The Company does not have any off-balance-sheet credit exposure related to its customers.

### ***Inventories***

Inventories are valued at the lower of cost (first-in, first-out) or market. The Company provides estimated inventory allowances for excess, slow moving and obsolete inventory as well as inventory whose carrying value is in excess of net realizable value.

### ***Property, Plant, and Equipment***

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

	Lesser of the life of the lease or the useful life of
Leasehold improvements	the improvement
Computers and related software	3 to 5 years
Machinery and equipment	3 to 10 years
Office furniture, equipment and fixtures	2 to 10 years

Significant additions or improvements extending assets' useful lives are capitalized; normal maintenance and repair costs are expensed as incurred. The costs of fully depreciated assets remaining in use are included in the respective asset and accumulated depreciation accounts. When items are sold or retired, related gains or losses are included in net (loss) income.

### ***Income Taxes***

Deferred tax assets and liabilities are recognized for temporary differences between financial statement and income tax bases of assets and liabilities, loss carryforwards, and tax credit carryforwards, for which income tax benefits are expected to be realized in future years. A valuation allowance has been established to reduce deferred tax assets, if it is more likely than not that all, or some portion, of such deferred tax assets will not be realized. The effect on deferred taxes of a change in tax rates is recognized in the period which includes the enactment date.

The Company accounts for uncertain tax positions in accordance with accounting standards that address income taxes. The Company must recognize in its financial statements the impact of a tax position, if that position is more likely than not to be sustained on an audit, based on the technical merits of the position.

### ***Equity Method Investments***

Effective 12/31/13, in connection with the deconsolidation of MTI Micro, the Company's consolidated net income (loss) will include our proportionate share, if any, of the net income or loss of our equity method investee. When the Company records its proportionate share of net income, it increases equity income (loss), net in our consolidated statements of operations and our carrying value in that investment. Conversely, when the Company records its proportionate share of a net loss, it decreases equity income (loss), net in our consolidated statements of operations and our carrying value in that investment. The Company's proportionate share of the net income or loss of our equity method investee includes significant operating and non-operating items recorded by our equity method investee. These items can have a significant impact on the amount of equity income (loss), net in our consolidated statements of operations and our carrying value in that investment. The carrying value of our equity method investment is also impacted by our proportionate share of items impacting the equity investee's accumulated other comprehensive income, if any.



### *Fair Value Measurement*

The estimated fair value of certain financial instruments, including cash and short-term debt approximates their carrying value due to their short maturities and varying interest rates. Fair value is the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation methods, the Company is required to provide the following information according to the fair value accounting standards. These standards established a fair value hierarchy as specified that ranks the quality and reliability of the information used to determine fair values. Financial assets and liabilities are classified and disclosed in one of the following three categories:

**Level 1:** Quoted market prices in active markets for identical assets or liabilities, which includes listed equities.

**Level 2:** Observable market based inputs or unobservable inputs that are corroborated by market data. These items are typically priced using models or other valuation techniques. These models are primarily financial industry-standard models that consider various assumptions, including the time value of money, yield curves, volatility factors, as well as other relevant economic measures.

**Level 3:** These use unobservable inputs that are not corroborated by market data. These values are generally estimated based upon methodologies utilizing significant inputs that are generally less observable from objective sources.

### *Revenue Recognition*

The Company applies the accounting guidance for revenue recognition in the evaluation of its contracts to determine when to properly recognize revenue. The following outlines the various types of revenue and the determination of the recognition of income for each category:

#### *Product Revenue*

Product revenue is recognized when there is persuasive evidence of an arrangement, the collection of a fixed fee is probable or determinable, and delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor. All of these generally occur upon shipment of the product. If the product requires installation to be performed by the Company, all revenue related to the product is deferred and recognized upon the completion of the installation. If the product requires specific customer acceptance, revenue is deferred until customer acceptance occurs or the acceptance provisions lapse, unless the Company can objectively and

reliably demonstrate that the criteria specified in the acceptance provisions is satisfied.

MTI Instruments currently has distributor agreements in place for the international sale of general instrument and semiconductor products in certain global regions. Such agreements grant a distributor the right of first refusal to act as distributor for such products in the distributor's territory. In return, the distributor agrees to not market other products which are considered by MTI Instruments to be in direct competition with MTI Instruments' products. The distributor is allowed to purchase MTI Instruments' equipment at a price which is discounted off the published domestic/international list prices. Such list prices can be adjusted by MTI Instruments during the term of the distributor agreement, but MTI Instruments must provide advance notice at least 90 days before the price adjustment goes into effect. Generally, payment terms with the distributor are standard net 30 days; however, on occasion, extended payment terms have been granted. Title and risk of loss of the product passes to the distributor upon delivery to the independent carrier (standard free-on-board factory), and the distributor is responsible for any required training and/or service with the end-user. The sale (and subsequent payment) between MTI Instruments and the distributor is not contingent upon the successful resale of the product by the distributor. Distributor sales are covered by MTI Instruments' standard one-year warranty and there are no special return policies for distributors.

Some of MTI Instruments' direct sales, particularly sales of semi-automatic semiconductor metrology equipment, or rack-mounted vibration systems, involve on-site customer acceptance and/or installation. In those instances, revenue recognition does not take place at time of shipment. Instead, MTI Instruments recognizes the sale after the unit is installed and/or an on-site acceptance is given by the customer. Agreed-upon acceptance terms and conditions, if any, are negotiated at the time of purchase.

### ***Cost of Product Revenue***

Cost of product revenue includes material, labor, overhead and shipping and handling costs.

### ***Deferred Revenue***

Deferred revenue consists of billings to and/or payments received from customers in advance of services performed, completed installation or customer acceptance. As of December 31, 2013, the Company had no deferred revenue. As of December 31, 2012, the Company had \$591 thousand in deferred revenue, which primarily consisted of several vibration analysis accessory kits which were completed, but not yet shipped to the customer at the customer's request.



### ***Warranty***

The Company accrues a warranty liability at the time product revenue is recorded based on historical experience. The liability is reviewed during the year and is adjusted, if appropriate, to reflect new product offerings or changes in experience. Actual warranty claims are tracked by product line. Warranty liability was \$17 thousand and \$20 thousand at December 31, 2013 and 2012, respectively.

### ***Long-Lived Assets***

The Company accounts for impairment or disposal of long-lived assets in accordance with accounting standards that address the financial accounting and reporting for the impairment or disposal of long-lived assets, specify how impairment will be measured, and how impaired assets will be classified in the consolidated financial statements. On a quarterly basis, the Company analyzes the status of its long-lived assets at each subsidiary for potential impairment. As of December 31, 2013, the Company does not believe that any of its long-lived assets have suffered any type of impairment that would require an adjustment to that asset's recorded value.

### ***Cash and Cash Equivalents***

Cash and cash equivalents consist of cash and highly liquid short-term investments with original maturities of less than three months.

### ***Net Income (Loss) per Share***

The Company computes basic income (loss) per common share by dividing net income (loss) by the weighted average number of common shares outstanding during the reporting period. Diluted income (loss) per share reflects the potential dilution, if any, computed by dividing income (loss) by the combination of dilutive common share equivalents, comprised of shares issuable under outstanding investment rights, warrants and the Company's share-based compensation plans, and the weighted average number of common shares outstanding during the reporting period. Dilutive common share equivalents include the dilutive effect of in-the-money stock options, which are calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of a stock option, the amount of compensation cost, if any, for future service that the Company has not yet recognized, and the amount of windfall tax benefits that would be recorded in additional paid-in capital, if any, when the stock option is exercised are assumed to be used to repurchase shares in the current period.

### ***Share-Based Payments***

The Company accounts for stock based awards exchanged for employee service in accordance with the stock-based payment accounting guidance. The Company has four share-based employee compensation plans, all of which are described more fully in Note 12, Stock Based Compensation.

Stock-based compensation represents the cost related to stock-based awards granted to employees and directors. The Company measures stock-based compensation cost at grant date based on the estimated fair value of the award, and recognizes the cost as expense on a straight-line basis in accordance with the vesting of the options (net of estimated forfeitures) over the option's requisite service period. The Company estimates the fair value of stock-based awards using a Black Scholes valuation model. Stock-based compensation expense is recorded in the lines titled "Selling, general and administrative expenses" and "Unfunded research and product development expenses" in the Consolidated Statements of Operations based on the employees' respective functions.

The Company records deferred tax assets for awards that potentially can result in deductions on the Company's income tax returns based on the amount of compensation cost that would be recognized upon issuance of the award and the Company's statutory tax rate. Differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the Company's income tax return are recorded in Additional Paid-In Capital (if the tax deduction exceeds the deferred tax asset) or in the Consolidated Statement of Operations (if the deferred tax asset exceeds the tax deduction and no historical pool of windfall tax benefits exists). Since the adoption of the revised accounting standard on share-based payments, no tax benefits have been recognized related to share-based compensation since the Company has established a full valuation allowance to offset all potential tax benefits associated with these deferred tax assets.

### ***Concentration of Credit Risk***

Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents and trade accounts receivable. The Company's trade accounts receivable are primarily from sales to commercial customers, the U.S. government and state agencies. The Company does not require collateral and has not historically experienced significant credit losses related to receivables from individual customers or groups of customers in any particular industry or geographic area.

The Company has cash deposits in excess of federally insured limits.



***Research and Development Costs***

The Company expenses research and development costs as incurred. The Company incurred research and development costs of approximately \$1.3 million and \$1.4 million, which was primarily related to MTI Instruments, for the years ended December 31, 2013 and 2012, respectively.

***Advertising Costs***

The Company expenses advertising costs as incurred. The Company incurred advertising costs of approximately \$73 and \$38 thousand, which was entirely related to MTI Instruments, for the years ended December 31, 2013 and 2012, respectively.

***Other Comprehensive Income***

The Company had no other comprehensive income (loss) items for the years ended December 31, 2013 and 2012.

***Effect of Recent Accounting Pronouncements***

Recent pronouncements issued by the FASB, or other authoritative accounting standard groups with future effective dates, are either not applicable, or are not expected to be significant to the financial statements of the Company.

**3. Accounts Receivable**

Accounts receivables consist of the following at December 31:

(dollars in thousands)	2013		2012	
U.S. and State Government	\$	37	\$	874

Edgar Filing: MECHANICAL TECHNOLOGY INC - Form 10-K

Commercial		787		800
Total	\$	824	\$	1,674

As of December 31, 2013 and 2012, the Company had no allowance for doubtful trade accounts receivable.

#### 4. Inventories

Inventories consist of the following at December 31:

(dollars in thousands)	2013		2012	
Finished goods	\$	287	\$	265
Work in process		188		482
Raw materials		267		371
Total	\$	742	\$	1,118

#### 5. Property, Plant and Equipment

Property, plant and equipment consist of the following at December 31:

(dollars in thousands)	2013		2012	
Leasehold improvements	\$	32	\$	954
Computers and related software		1,281		1,709
Machinery and equipment		810		1,390
Office furniture and fixtures		125		271
		2,248		4,324
Less: Accumulated depreciation		2,102		4,195
	\$	146	\$	129

Depreciation expense was \$91 thousand and \$129 thousand for 2013 and 2012, respectively. Repairs and maintenance expense was \$19 thousand and \$57 thousand for 2013 and 2012, respectively. In conjunction with the suspension of MTI Micro operations in late 2011, sales of certain surplus equipment on hand were made during 2013 and 2012. This resulted in a net gain on sale of \$13 thousand and \$130 thousand for 2013 and 2012, respectively. As of December 31, 2013 and December 31, 2012, all \$13 thousand and \$143 thousand, respectively in sales proceeds have been received.

## 6. Income Taxes

Income tax (expense) benefit for each of the years ended December 31 consists of the following:

<b>(dollars in thousands)</b>	<b>2013</b>	<b>2012</b>
Federal	\$	\$
State		(6)
Deferred	(35)	
Total	\$ (35)	\$ (6)

The significant components of deferred income tax (expense) benefit from operations before non-controlling interest for each of the years ended December 31 consists of the following:

<b>(dollars in thousands)</b>	<b>2013</b>	<b>2012</b>
Deferred tax expense (benefit)	\$ 64	\$ (2,783)
Net operating loss carry forward	(165)	772
Valuation allowance	66	2,011
	\$ (35)	\$

The Company's effective income tax rate from operations before non-controlling interest differed from the Federal statutory rate for each of the years ended December 31 as follows:

	<b>2013</b>		<b>2012</b>	
Federal statutory tax rate	34	%	34	%
Gain on VIE deconsolidation	(33)			
Change in valuation allowance	(2)		97	
Adjustment to opening deferred tax balance			(131)	
Expiration of stock option	1			
Other, net	1			
Tax Rate	1	%	0	%

Pre-tax income (loss) before non-controlling interests was \$3.6 million and \$(2.1) million for 2013 and 2012, respectively.

**Deferred Tax Assets:**

Deferred tax assets are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates. Temporary differences, net operating loss carryforwards and tax credit carryforwards that give rise to deferred tax assets and liabilities are summarized as follows as of December 31:

<b>(dollars in thousands)</b>	<b>2013</b>	<b>2012</b>
Current deferred tax assets:		
Inventory valuation	\$ 65	\$ 120
Inventory capitalization	4	7
Vacation pay	34	35
Warranty and other sale obligations	6	7
Allowance for related party note receivable	131	
Other reserves and accruals	63	29
	303	198
Valuation allowance – current	(278)	(182)
Net current deferred tax assets	\$ 25	\$ 16
Noncurrent deferred tax assets:		
Net operating loss	\$ 17,450	\$ 18,426
Property, plant and equipment		51
Stock options	83	173
Research and development tax credit	450	450
Alternative minimum tax credit	54	54
	18,037	19,154
Valuation allowance – noncurrent	(16,562)	(17,635)
Non-current net deferred tax assets	\$ 1,475	\$ 1,519

As of December 31, 2013, the Company has approximately \$450 thousand of research and development tax credit carry forwards, which begin to expire in 2018, and approximately \$54 thousand of alternative minimum tax credit carry forwards, which have no expiration date.

**Valuation Allowance:**

The Company provides for recognition of deferred tax assets if the realization of such assets is more likely than not to occur in accordance with accounting standards that address income taxes. Significant management judgment is required in determining the period in which the reversal of a valuation allowance should occur. The Company has considered all available evidence, both positive and negative, such as historical levels of income and future forecasts of taxable income amongst other items, in determining our valuation allowance. In addition, the Company s

assessment requires us to schedule future taxable income in accordance with accounting standards that address income taxes to assess the appropriateness of a valuation allowance which further requires the exercise of significant management judgment.

As a result of our analyses in 2011, the Company released a portion of our valuation allowance against its deferred tax assets. The partial release of the valuation allowance caused an incremental tax benefit of \$1.5 million that was recognized in the fourth quarter of 2011. The release of a portion of the valuation allowance was based upon a recent cumulative income history for MTI and its subsidiary exclusive of MTI Micro (MTI Micro files separate federal and state tax returns) causing the Company to evaluate what portion of the Company's deferred tax assets it believes are more likely than not to be realized.

The Company has determined that it expects to generate sufficient levels of pre-tax earnings in the future to realize the net deferred tax assets recorded on the balance sheet at December 31, 2013. The Company has projected such pre-tax earnings utilizing a combination of historical and projected results, taking into consideration existing levels of permanent differences, non-deductible expense and the reversal of significant temporary differences. We project that our taxable income for the next three years is adequate to ensure the realizability of the \$1.5 million of deferred tax assets recorded on our balance sheet at December 31, 2013. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations. We will continue to evaluate the ability to realize our deferred tax assets and related valuation allowance on a quarterly basis.

The Company believes that the accounting estimate for the valuation of deferred tax assets is a critical accounting estimate because judgment is required in assessing the likely future tax consequences of events that have been recognized in our financial statements or tax returns. The Company based the estimate of deferred tax assets and liabilities on current tax laws and rates and, in certain cases, business plans and other expectations about future outcomes. In the event that actual results differ from these estimates or the Company adjusts these estimates in future periods, the Company may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations.

The valuation allowance at December 31, 2013 and 2012 was \$16.8 million and \$17.8 million, respectively. Activity in the valuation allowance for deferred tax assets is as follows as of December 31:

<b>(dollars in thousands)</b>	<b>2013</b>	<b>2012</b>
Valuation allowance, beginning of year	\$ 17,817	\$ 19,828
VIE deconsolidation	(911)	
Allowance for related party note receivable	131	