MECHANICAL TECHNOLOGY INC
Form 10-K
March 21, 2013

# UNITED STATES

# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

**FORM 10-K**

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2012**
**OR**
o **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 | 0-6890 | 14-1462255 |
|---|---|---|
| (State or Other Jurisdiction of Incorporation) | (Commission File Number) | (IRS Employer Identification No.) |

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

**(Address of registrant s principal executive office)**

**(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 x

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 x

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 x 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). Yesx 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. x

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 x |
|---|---|---|---|

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes¨ Nox

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2012 (based on the last sale price of $0.35 per share for such stock reported on the over-the-counter market for that date) was $1,573,807.

As of March 15, 2013, the Registrant had 5,256,883 shares of common stock outstanding.

Documents incorporated by reference: Portions of the registrant s Proxy Statement for its 2013 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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**PART I**

**Item 1: Business**

*Unless the context requires otherwise in this Annual Report on Form 10-K, the terms 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. We have a registered trademark in the United States for Mobion . 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, (MTI or the Company), a New York corporation, was incorporated in 1961. MTI operates in two segments: the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. (MTI Instruments), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells, Inc. (MTI Micro), a variable interest entity (VIE) as of December 31, 2012.

MTI Instruments was incorporated in New York on March 8, 2000 and is a worldwide supplier of precision non-contact physical measurement solutions, portable balance equipment and wafer inspection tools. MTI Instrument s products use a comprehensive array of technologies to solve complex, real world applications in numerous industries including manufacturing, semiconductor, solar, commercial and military aviation, automotive and data storage. MTI Instruments products consist of electronic gauging instruments for position, displacement and vibration application within the design, manufacturing/production, test and research market; wafer characterization of semi-insulating and semi-conducting wafers within both the semiconductor and solar industries; tensile stage systems for materials testing at academic and industrial settings; and engine vibration analysis systems for both military and commercial aircraft.

MTI Micro was incorporated in Delaware on March 26, 2001, and, until its operations were suspended in late 2011, had been developing Mobion®, 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. Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, operations continue to remain suspended at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional

financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro including the sale of its intellectual property portfolio and/or remaining assets. As of December 31, 2012, the Company owned approximately 47.6% of MTI Micro s outstanding common stock.

**The Test and Measurement Instrumentation Segment**

MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems. Our products use technology to solve complex real world applications in numerous industries including automotive, semiconductor, solar cell manufacturing, material testing, commercial and military aviation and data storage. We are continuously working on ways to expand our sales reach, including expanded sales coverage throughout Europe and Asia, as well as a focus on internet marketing.

Selected MTI Instruments products

***Products***

Our test and measurement segment has three product groups: *Precision Instruments, Semiconductor and Solar Metrology Systems and Balancing Systems*. Our products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing/production and test and research markets; metrology tools for wafer characterization of semiconductor and solar wafers; tensile stage systems for materials testing in research and industrial settings; and engine balancing and vibration analysis systems for both military and commercial aircraft.

***Precision Instruments:*** The Precision Instruments group employs capacitance, laser and fiber optic technologies to make nano-accurate measurements including displacement, position, vibration and dimension. These advanced sensing and physical measurement technologies are used to produce products that range from basic sensors to complete, fully integrated measurement systems.

Listed below are selected MTI Instruments Precision Instruments product offerings and technologies:

| **Product** | **Description** | |
|---|---|---|
| Accumeasure Series | Ultra-high precision capacitive boards & systems offering 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 PRO-2D | 2D laser triangulation scanners that provide profile, displacement, and 3D images. | |
| MTII/Fullam Tensile Stages | Miniature tensile testers for use inside scanning electron and other microscopes. | |
| MTI-2100 Fotonic Sensor Series | Fiber-optic based vibration sensor systems with high frequency response. | |

***Semiconductor and Solar Metrology Systems:*** Our family of wafer metrology systems includes manual and semi-automated systems which test key wafer characteristics critical to producing integrated circuits. Primarily used in quality control applications, these systems provide highly precise measurements of thickness variation, bow, warp,

resistivity, and flatness. These systems can be used on substrates varying widely in size and materials. In addition to MTI Instrument s push/pull capacitance probe technology, we expanded our line of products to include offerings for the solar industry, including the measurement of solar wafer thickness.

Listed below are MTI Instruments Semiconductor and Solar Metrology Systems product offerings and technologies:

| **Product** | **Description** |
|---|---|
| Proforma 200SA/300SA | Semi-automated, non-contact full wafer surface scanning system for thickness, total thickness variation (TTV), bow, warp, site and global flatness. |
| Proforma 300 | Manual, non-contact measurement of wafer thickness, TTV and bow. |
| PV 1000 | In process tool for measuring thickness and bow of solar wafers |

***Balancing Systems:*** The computer-based portable balancing systems (PBS) products automatically collect and record aircraft engine vibration data, identify vibration or balance trouble in an engine, and calculate a solution to the problem. These units are used by major aircraft engine manufacturers and are also used by the U.S. Air Force, other military and commercial airlines, and gas turbine manufacturers.

Our aviation balancing systems products include vibration analysis and engine trim balance instruments and accessories for commercial and military jets. These products are designed to quickly pinpoint engine problems and eliminate unnecessary engine removals.

Listed below are selected MTI Instruments Balancing Systems product offerings and technologies:

| **Product** | **Description** |
|---|---|
| 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. |

*Marketing and Sales*

We market our products and services using channels of distribution specific to each of our product groups and customer base. The precision instruments group markets its products through a combination of manufacturer representatives in the United States and distributors overseas. The semiconductor and solar metrology systems group markets its products directly to end customers in the United States and internationally through distributors, while the aviation balancing systems group primarily sells direct to the end user.

To supplement these efforts, the company utilizes both commercial and industrial search engines, targeted newsletters and trade shows to identify and expand its customer base.

Comparisons of sales by class of products of MTI Instrument s sales are shown below for the years ended December 31:

| | 2012 | | 2011 | |
|---|---|---|---|---|
| **(Dollars in thousands)** | Sales | % | Sales | % |
| Balancing Systems | $ 2,508 | 42.5% | $ 5,359 | 52.1% |
| Precision Instruments | 2,813 | 47.7 | 3,983 | 38.8 |
| Semiconductor and Solar Metrology | 579 | 9.8 | 938 | 9.1 |
| **Total** | $ 5,900 | 100.0% | $ 10,280 | 100.0% |

*Product Development and Manufacturing*

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

In the precision instruments area, 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.

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 and product customization.

MTI Instruments 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 laws and patents 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 patent 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. In 2012, the U.S. Air Force accounted for $1.3 million or 22.3% of product revenues, and in 2011, it accounted for $2.3 million or 22.4% of product revenues. The largest commercial customer in 2012 was an Asian distributor, who accounted for $406 thousand or 6.9% of total product revenues in 2012. The largest commercial customer in 2011 was an Asian distributor, who accounted for $1.1 million or 10.7% of total product revenues in 2011.

*Competition*

We are subject to competition from several companies, substantially all of which are larger than MTI Instruments. MTI Instruments competitors include Chadwick-Helmuth Company, Inc., ACES Systems, Micro-Epsilon, Microsense, Keyence Corporation, KLA-Tencor, 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.

**The New Energy Segment**

Demand for portable electronics that offer an enhanced experience, including the ability to communicate any time and anywhere, have effectively enabled the creation of an always-on environment independent of location. This trend towards increased functionality in portable electronic devices has led to a power gap in which the disparity between a device s power supply, typically a rechargeable lithium-ion battery, and its power need is growing. This power gap leads to a need for the end user to plug in their devices to the electrical grid more frequently, which limits the ability to use these electronic devices where and when needed.

Until its operations were suspended in late 2011, MTI Micro had been developing an off-the-grid power solution for various portable electronic devices to address this power gap. Our patented proprietary direct methanol fuel cell (DMFC) technology platform, called Mobion®, converts methanol fuel to usable electricity capable of providing continuous power as long as necessary fuel flows are maintained. Our proprietary fuel cell power solution consists of

two primary components integrated into an easily manufactured device: the DMFC power engine, which we refer to as our Mobion® Chip, and methanol fuel cartridges. Our current Mobion® Chip is small enough to fit in the palm of one s hand. The methanol used by the technology is fully biodegradable.

MTI Micro relies on a combination of patents (both national and international), trade secrets, trademarks and copyrights to protect its intellectual property. Our strategy is to apply for patent protection for all significant design requirements. We also enter into standard confidentiality agreements with our employees, consultants, vendors, partners and potential customers and seek to control access to and distribution of our proprietary information. We have developed a portfolio of patent applications in areas including fuel cell systems, fuel refill and packaging, fuel, components, manufacturing processes, and system packaging. The issued patents expire between 2020 and 2027. 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 patent and trade secret protection may be unavailable or limited in certain foreign countries.

Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, operations have been suspended since late 2011 at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order, come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro board of directors will assess other options for MTI Micro, including the sale of its intellectual property portfolio and/or remaining assets.

**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 innovation, technological expertise and new product development.

MTI has incurred research and development costs of approximately $1.4 million and $1.5 million, which is primarily related to MTI Instruments, for the years ended December 31, 2012 and 2011, respectively. We expect to continue to invest in research and development in the future in our MTI Instruments segment.

**Employees**

As of December 31, 2012, we had 33 employees including 30 full-time employees.

**Availability of Information**

We make available through our website *(http://www.mechtech.com)* free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission (SEC). These reports may be accessed through our website s Investor Relations page.

The public may read and copy any materials we file with the SEC at the SEC s Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may also obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. We file electronically with the SEC and the SEC maintains an internet site (http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

**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 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 believe, we intend, should, and similar words or phrases, we are identifying forward-looking statements. Forward-looking statements involve risks, uncertainties, estimates and assumptions which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. These factors include, among others:

- our inability to achieve profitability and improve liquidity;
- sales revenue growth of our test and measurement instrumentation business may not be achieved or maintained;

- the dependence of our test and measurement instrumentation business on a small number of customers and potential loss of government contracts;
- 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;
- intense competition in the instrumentation business;
- the cyclical nature of the electronics industry;
- significant periodic and seasonal quarterly fluctuations in our results of operations;
- 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;
- the historical volatility of our stock price;

- risks related to protection and infringement of intellectual property;
- product liability or defects;
- our dependence on sole suppliers or a limited group of suppliers for both business segments;
- our history of recurring net losses and the risk of continued net losses;
- our ability to generate income to realize our net operating losses
- risks related to the limitation of the use of our net operating losses in the event of certain ownership changes;
- our ownership position in MTI Micro may be reduced further as a result of our need to seek external financing for MTI Micro s operations;
- MTI Micro s need to raise additional financing; and
- other factors discussed under the heading Risk Factors 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**

*Set forth below are certain risks and uncertainties that could adversely affect our results of operations or financial condition and cause our actual results to differ materially from those expressed in our forward-looking statements. Also refer to the heading Factors Affecting Future Results above.*

***We incurred a significant loss during 2012 and if we continue to incur losses it will have a material adverse effect on our business plans, liquidity, results of operations and financial condition.***

During the year ended December 31, 2012, we incurred a net loss of $2.1 million. In order to achieve profitability and improve liquidity, we must successfully achieve all or some combination of the following: 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 make 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, 2013. 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 further continued 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 if we do achieve profitability, 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 test and measurement instrumentation business, which experienced a significant decline in sales during 2012.***

Our test and measurement instrumentation business is subject to a number of risks, including the following:

- a continued slow down or cancellation of sales to the military as a result of a potential redeployment, or sequestration, of governmental funding;

- the Company may not be able to maintain, improve, or expand its direct and indirect channels of distribution;
- a 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 intensive competition, uncertainty of new technology development, or limited or unavailable resources to fund development.

In addition, our test and measurement instrumentation products can be sold in quantity for short term projects to a relatively few number of customers, resulting in a customer concentration risk. After having record revenue in 2011, MTI Instruments experienced a significant decline in sales in 2012. The further 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 business and our ability to generate the cash needed to operate our business.

Since we have suspended operations for MTI Micro due to lack of funding, all of our corporate costs must be funded by the test and measurement instrumentation 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. Customers may require rapid increases in 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 instrumentation industries 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 maintaining 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, 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 industry is cyclical and may result in fluctuations in our operating results.***

The electronics industry has 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 will 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 will contribute to significant periodic and seasonal quarterly fluctuations in our results of operations. These factors include the following:

- the cyclicality 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.

Accordingly, you should not rely on period-to-period comparisons as an indicator of our future performance. Negative or unanticipated fluctuations in our operating results may result in a decline in the price of our stock.

***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;
- tariffs and 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 2012, approximately 37.6% 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 cause the demand for our products and 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 of future exchange rate fluctuations 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 and may negatively affect our stock price.***

The revenue growth and profitability of our business will depend significantly on the overall demand for test and measurement instrumentations as well as electronic devices. Softening demand in these markets caused by ongoing economic uncertainty 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.

***Our common stock was delisted from the NASDAQ Stock Market, which has adversely affected the price of our stock and the ability of our stockholders to trade in our stock.***

In April 2009, we voluntarily delisted our common stock from the NASDAQ Stock Market to reduce expenses and to avoid a likely involuntary delisting for failure to comply with the continued listing requirements. Our common stock is currently quoted on the over-the-counter market on the over-the-counter bulletin board (OTCBB) under the symbol MKTY. As a result of the delisting, the liquidity in our stock has decreased, which adversely affected the price of our stock, which may make it more difficult for you to trade in our stock. Consequently, the liquidity of our common stock is impaired, not only in the number of shares that are bought and sold, but also through delays in the timing of transactions, and coverage by security analysts and the news media, if any, of our company. As a result, prices for shares of our common stock may be lower than might otherwise prevail if our common stock was quoted and traded on NASDAQ or a national securities exchange.

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***If we are unable to adequately protect our intellectual property, our competitors and other third parties could produce products based on our intellectual property, which would substantially impair our ability to compete.***

Our success and ability to compete depends in part upon our ability to maintain the proprietary nature of our technologies. We rely on a combination of patent, trade secret, copyright, and trademark law and license agreements, as well as nondisclosure agreements, to protect our intellectual property. These legal means, however, afford only limited protection and may not be adequate to protect our intellectual property rights. We cannot be certain that we were the first creator of inventions covered by pending patent applications or the first to file patent applications on these inventions. In addition, we cannot be sure that any of our pending patent applications will issue. The United States Patent and Trademark Office or other foreign patent and trademark offices may deny or significantly narrow claims made under our patent applications and, even if issued, these patents may be successfully challenged, designed around, or may otherwise not provide us with any commercial protection.

We may in the future need to assert claims of infringement against third parties to protect our intellectual property. Regardless of the final outcome, any litigation to enforce our intellectual property rights in patents, copyrights, or trademarks could be highly unpredictable and result in substantial costs and diversion of resources, which could have a material and adverse effect on our business and financial condition. In the event of an adverse judgment, a court could hold that some or all of our asserted intellectual property rights are not infringed, or are invalid or unenforceable, and could award attorneys fees to the other party.

***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, which 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. Whether or not such claims are valid, we cannot be certain that we have

not infringed the intellectual property rights of such 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 portable power source products, or could enter orders mandating that we undertake certain remedial activities. Further, a court could order us to pay compensatory damages for such infringement, plus prejudgment interest, and could in addition treble the compensatory damages and award attorneys fees. These damages could materially and adversely affect our business and financial condition.

***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 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. The failure to obtain and maintain trade secret protection could adversely affect our competitive position.

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

As of December 31, 2012, it is estimated that MTI has net operating loss (NOL) carryforwards of approximately $52.4 million and MTI Micro has NOL carryforwards of approximately $16.7 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 is 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.

The Company and its subsidiaries have undergone a formal Section 382 study. 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. As a result of MTI Micro s issuance of stock between 2009 and 2011, MTI Micro had experienced a Section 382 ownership change, which reduced their NOLs by an estimated $14.6 million.

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

***Our ownership position in MTI Micro has been reduced as a result of external financing for MTI Micro's operations, which could limit our ability to control the operations.***

As of December 31, 2012, we owned approximately 47.6% of MTI Micro s Common Stock issued. Between September 2008 and September 2011, MTI Micro entered into numerous debt and equity financings with third parties, primarily, Dr. Walter L. Robb, a member of the Company s and MTI Micro s boards of directors, and Counter Point Ventures Fund II, LP (Counter Point). Counter Point is a venture capital fund sponsored and managed by Dr. Robb.

After these series of transactions, MTI now holds an aggregate of approximately 47.6% of the outstanding common stock of MTI Micro or 53.3% of the outstanding common stock and warrants issued of MTI Micro, and Dr. Robb and Counter Point hold approximately 5.1% and 45.2%, respectively of the outstanding common stock of MTI Micro or 4.3% and 40.3%, respectively of the outstanding common stock and warrants issued of MTI Micro. Since no entity of the related parties has power but, as a group, the Company and its related parties have the power, then the party within the related party group that is most closely associated with the VIE, MTI Micro, is the primary beneficiary. Even though Dr. Robb and Counterpoint combined control a majority of the outstanding common stock, and they have 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, they have not elected to do so. The Company continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual properties, and have a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, the Company has made the largest investment and been the principal funder of MTI Micro. The Company has also been exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes the Company is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary of MTI Micro. Should there be a change in the facts and circumstances (such as a change in governance or a change to the related party group) management will reassess whether they act as the primary beneficiary and should continue to include MTI Micro in the Company s consolidated results of operations.

***MTI Micro currently does not have sufficient funds to commercialize its portable power source products.***

In order to resume operations and continue full commercialization of its micro fuel cell solution, MTI Micro will need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- obtain government grants or private funding of its direct methanol fuel cell research, development, manufacturing readiness and commercialization;
- receive a purchase order from government agencies or OEM s; or
- secure additional debt or equity financing.

There is no guarantee that resources will be available to MTI Micro on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that MTI Micro will be able to resume operations or reduce its expenditure run-rate further. MTI Micro had cash and cash equivalents of $100 thousand as of December 31, 2012. Since 2008, MTI Micro has raised $5.4 million in external debt and equity financing. At the end of 2011, MTI Micro suspended its operations while additional necessary funding is being pursued. If MTI Micro raises additional funds by issuing equity securities, MTI Micro s stockholders, including MTI, will experience further dilution. Additional debt financing, if available, may involve restrictive covenants. There is no assurance that funds raised in any future debt financing or additional equity financing arrangements will be sufficient, that the financing will be available on terms favorable to MTI Micro or to existing stockholders and at such times as required, or that MTI Micro will be able to obtain the additional financing required to resume the operation of its business. If MTI Micro raises additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to MTI Micro s technologies or its products, or grant licenses on terms that are not favorable to MTI Micro. If MTI Micro is unable to secure additional financing, MTI Micro could be forced to sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

**Item 1B: Unresolved Staff Comments**

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K. As such, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information required under this Item.

**Item 2: Properties**

We lease office, manufacturing and research and development space in the following locations:

| Location | Segment | Primary Use | Approximate Number of Square Feet |
|---|---|---|---|

| | | | | Lease Expiration |
|---|---|---|---|---|
| Albany, NY | Test and Measurement Instrumentation | Corporate headquarters, manufacturing, office and sales | 17,400 | November 2014 |
| Albany, NY | New Energy | Office and research and development | 2,400 | June 2013 |

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 has been 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 and MTI Micro are named party defendants to this action by virtue of their 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. Accordingly, while there continues to be on-going discussions between the parties, we believe that it is too early to determine (i) whether there is likely exposure to an adverse outcome and (ii) whether or not the probability of an adverse outcome is more than remote.

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 its regular business activities, compliance with various governmental regulations and requirements, or other transactions or circumstances. We do not believe there are any such additional proceedings presently pending which could have a material adverse effect on our financial condition.

**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 traded on the OTCBB markets under the symbol MKTY . The following table sets forth the high and low sale prices of our common stock as reported for the periods indicated:

| | High | Low |
|---|---|---|
| **Fiscal Year Ended December 31, 2012** | | |
| First Quarter | $ .74 | $ .11 |
| Second Quarter | .58 | .11 |
| Third Quarter | .39 | .11 |
| Fourth Quarter | .37 | .17 |
| **Fiscal Year Ended December 31, 2011** | | |
| First Quarter | $ .95 | $ .59 |
| Second Quarter | .95 | .69 |
| Third Quarter | .72 | .41 |
| Fourth Quarter | .59 | .41 |

**Holders**

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, 2012 and 2011 there were 5,256,883 and 5,254,883 shares of common stock issued and outstanding, respectively. As of March 6, 2013, there were approximately 237 shareholder s 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.

**Securities Authorized for Issuance Under Equity Compensation Plans**

See also Part III Item 12 in this Annual Report on Form 10-K for additional detail related to security ownership and related stockholder matters, and for additional detail on equity compensation plan matters.

**Performance Graph**

The Company s performance graph is not required for a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K. As such, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information required under this Item.

**Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities**

None.

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**(b)**

**Report of Offering of Securities and Use of Proceeds Therefrom**

None.

**(c)**

**Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

None.

**Item 6: Selected Financial Data**

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K. As such, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information required under this Item.

**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 operates in two segments: the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. (MTI Instruments), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells, Inc. (MTI Micro), a variable interest entity (VIE) as of December 31, 2012. MTI and MTI Micro currently share the same board of directors, while MTI also continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual property, and have a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, MTI has made the largest investment and been the principal funder of MTI Micro. MTI has also been exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes MTI is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary. Should there be a change in the facts and circumstances (such as a change in governance or a change to the related party group) management will reassess whether MTI remains the primary beneficiary and should continue to consolidate MTI Micro in MTI s consolidated financial statements.

*Test and Measurement Segment* MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems. Our products use state-of-the-art technology to solve complex real world applications in numerous industries including automotive, semiconductor, solar cell manufacturing, material testing, commercial and military aviation and data storage. We are continuously working on ways to expand our sales reach, including expanded sales coverage throughout Europe and Asia, as well as a focus on internet marketing.

Our test and measurement segment has three product groups: Precision Instruments, Semiconductor and Solar Metrology Systems, and Balancing Systems. Our products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing/production and test and research markets; metrology tools for wafer characterization of semiconductor and solar wafers; tensile stage systems for materials testing in research and industrial settings; and engine balancing and vibration analysis systems for both military and commercial aircraft.

*New Energy Segment* Until its operations were suspended in late 2011, MTI Micro had been developing an off-the-grid power solutions for various portable electronic devices. Our patented proprietary direct methanol fuel cell (DMFC) technology platform, called Mobion®, converts methanol fuel to usable electricity capable of providing continuous power as long as necessary fuel flows are maintained. Our proprietary fuel cell power solution consists of two primary components integrated into an easily manufactured device: the DMFC power engine, which we refer to as our Mobion® Chip, and methanol fuel cartridges. Our current Mobion® Chip is small enough to fit in the palm of one s hand. The methanol used by the technology is fully biodegradable.

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Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, operations have been suspended since late 2011 at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro board of directors will assess other options for MTI Micro, including the sale of its intellectual property portfolio and/or remaining assets.

**Recent Developments**

On June 18, 2012, the Audit Committee of the Board of Directors of the Company approved the dismissal of PricewaterhouseCoopers LLP (PwC) and engaged UHY LLP (UHY) as the Company s independent registered public accounting firm for the fiscal year ended December 31, 2012. For more information, see Item 9 of Part II of this Annual Report on Form-K.

In conjunction with the suspension of MTI Micro in late 2011, sales of certain surplus equipment on hand were made during the three months ended June 30, 2012. This resulted in a net gain on sale of $130 thousand. As of December 31, 2012, all $143 thousand of the sales proceeds have been received.

Peng K. Lim, the Company s former Chief Executive Officer ended his employment on September 10, 2012. Subsequently, the Company and Mr. Lim entered into an Agreement and Release (the Agreement) effective March 1, 2013. Pursuant to the Agreement, Mr. Lim resigned as Chief Executive Officer and from the Company s Board of Directors effective September 10, 2012. Mr. Lim resigned as a director to pursue a new business venture in the consumer electronics industry. The Company and Mr. Lim agreed to general releases from liability and customary restrictive covenants, and the Company agreed to pay Mr. Lim s attorneys fees of $30 thousand. Mr. Lim will not receive any other compensation.

Kevin G. Lynch, the Chairman of the Company s Board of Directors, is serving as Acting Chief Executive Officer until Mr. Lim s replacement is named. Mr. Lynch is serving as advisor to the Company at a monthly fee of $20

thousand.

**Results of Operations**

***Results of Operations for the Year Ended December 31, 2012 Compared to December 31, 2011.***

**Test and Measurement Instrumentation Segment**

*Product Revenue:* Product revenue in our Test and Measurement Instrumentation segment for the year ended December 31, 2012 decreased by $4.4 million, or 42.6%, to $5.9 million in 2012 from $10.3 million in 2011. This decrease in product revenue was due primarily to a $2.9 million decline in aviation balancing equipment sales. In 2011, first quarter product revenue had included unique order activity for aviation balancing systems which began during the fourth quarter of 2010 and shipped during the first quarter of 2011. In addition, during 2012, the aviation balancing system business with the U.S. military experienced a notable decline due to reductions/delays in government spending. Further contributing to the overall decline in the segment has been a 45% drop in capacitance product shipments stemming from production slowdowns at our customers in Asia and fewer wafer metrology equipment shipments, most notably to the solar industry. For the year ended December 31, 2012, the largest commercial customer for the segment was an Asian distributor, which accounted for $406 thousand, or 6.9%, of the annual product revenue. In 2011, the segment s largest commercial customer was an Asian distributor, who accounted for $1.1 million, or 10.7%, of the annual product revenue. The U.S. Air Force was the largest government customer for the year ended December 31, 2012 and accounted for $1.3 million, or 22.3%, of the annual product revenue. The U.S. Air Force was the largest government customer for the year ended December 31, 2011 and accounted for $2.3 million, or 22.4%, of the annual product revenue.

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

| (Dollars in thousands) | | | | **Contract Revenues to Date** | **Total Contract Orders Received To Date** |
|---|---|---|---|---|---|
| | | **Revenues for the Year Ended December 31,** | | | |
| **Contract[(1)]** | **Expiration** | **2012** | **2011** | **December 31, 2012** | **December 31, 2012** |
| Aviation Balancing Systems | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| $6.5 million U.S. Air Force Maintenance | 09/27/2014 | (2) | $ 504 | $ 1,080 | $ 3,408 | $ 3,452 |
| $4.1 million U.S. Air Force Systems | 08/29/2015 | (3) | $ 171 | $ 684 | $ 855 | $ 855 |
| $917 thousand U.S. Air Force Kit | 09/30/2014 | (4) | $ 184 | $ | $184 | $769 |

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(1) Contract values represent maximum potential values and may not be representative 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 all four option extensions.
(4) Date represents expiration of contract, which includes the exercise of two option extensions.

*Cost of Product Revenue:* Cost of product revenue in our Test and Measurement Instrumentation segment for the year ended December 31, 2012 decreased by $814 thousand, or 21.5%, to $3.0 million in 2012 from $3.8 million in 2011 in conjunction with the aforementioned 42.6% decrease in product revenue. Gross profit, as a percentage of product revenue, decreased to 49.7%, compared to 63.2% for the same period in 2011 due to an increase to the inventory reserve to account for potentially obsolete/slow moving inventory, higher production overhead costs related to over staffing during the first half of the year and the change in product mix.

*Unfunded Research and Product Development Expenses:* Unfunded research and product development expenses in our Test and Measurement Instrumentation segment for the year ended December 31, 2012 increased by $122 thousand, or 9.8%, to $1.4 million in 2012 from $1.2 million in 2011. This increase was due to additional personnel costs for general engineering and development and increased external development spending.

*Selling, General and Administrative Expenses:* Selling, general and administrative expenses in our Test and Measurement Instrumentation segment for the year ended December 31, 2012 decreased by $399 thousand, or 17.3%, to $1.9 million in 2012 from $2.3 million in 2011. This decrease is the result of reduced personnel costs.

**New Energy Segment**

*Funded Research and Development Revenue:* There was no funded research and development revenue in our New Energy segment for the year ended December 31, 2012 compared to $13 thousand in the prior year. The final billings for both the Department of Energy (DOE) and the New York State Energy Research and Development Authority (NYSERDA) grants were done in the first quarter of 2011 for approximately $6 thousand each, as the majority of work was finished in 2010. There are no active grants at this time.

*Funded Research and Product Development Expenses:* There was no funded research and product development expenses in our New Energy segment for the year ended December 31, 2012, compared to $25 thousand in 2011. There are no active grants at this time.

*Unfunded Research and Product Development Expenses:* There was unfunded research and product development income of $1 thousand in our New Energy segment for the year ended December 31, 2012, compared to unfunded research and product development expenses of $199 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011, and no further research is being performed at this time.

*Selling, General and Administrative Expenses:* Selling, general and administrative expenses in our New Energy segment decreased by $832 thousand to $160 thousand for the year ended December 31, 2012, compared to $993 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011. Currently, MTI Micro has no employees and projects to spend between $5 and $10 thousand per month for operating activities including rent, limited sales efforts, patent fees to keep the patent portfolio current and minimal consultant costs to perform these initiatives.

**Results of Consolidated Operations**

*Operating (Loss) Income:* Operating loss for the year ended December 31, 2012 was $2.2 million compared to operating income of $52 thousand in 2011. This decrease in operating income was a result of the factors noted above.

*Gain on Derivatives:* We had no gain on derivatives for the year ended December 31, 2012 compared to a gain on derivatives of $73 thousand in 2011. Gain on derivatives was the result of derivative treatment of the freestanding warrants issued to investors in conjunction with our December 2006 capital raise. These warrants expired on December 19, 2011.

*Income Tax (Expense) Benefit:* Income tax expense for the year ended December 31, 2012 was $6 thousand compared to an income tax benefit of $1.5 million in 2011. Our income tax rate for the years ended December 31, 2012 and 2011 was 0% and 1,548%, respectively. The projected annual effective tax rate for 2012 is less than the Federal statutory rate of 35%, primarily due to a one-time adjustment in the deferred tax asset related to stock compensation expense for options that have lapsed or been voluntarily surrendered to the Company. The 2011 tax rate was primarily the result of the reversal of a portion of the valuation allowance to reflect the portion of the Company s deferred tax asset that management has estimated is more likely than not to be realized. The valuation allowance against our deferred tax assets at December 31, 2012 and at December 31, 2011 was approximately $18 million and $20 million, respectively. We will continue to evaluate the ability to realize our deferred tax assets and related valuation allowances on a quarterly basis.

*Net Loss Attributed to Non-Controlling Interests (of MTI Micro):* The net loss attributed to non-controlling interests for the year ended December 31, 2012 decreased by $735 thousand, or 99.6%, to $3 thousand in 2012 from $738 thousand in 2011. This is the result of a decrease in the net loss of MTI Micro from $1.5 million in 2011 to $5 thousand in 2012, offset in part, by an increase in the percentage of ownership of the non-controlling interest of MTI Micro in 2011.

*Net (Loss) Income:* Net loss for the year ended December 31, 2012 was $2.1 million compared to net income of $2.4 million for the same period in 2011. The decrease in net income of $4.5 million for the year ended December 31, 2012 as compared to the same period in 2011 is primarily attributed to the reversal of a portion of the deferred tax asset s valuation allowance of $1.5 million in 2011, representing the portion of the Company s deferred tax asset that management had estimated is more likely than not to be realized, a reduction of MTI Instruments net income in 2012 of $3.5 million, a reduction of the net loss of MTI Micro in 2012 of $1.5 million, and a reduction in the net loss attributed to non-controlling interests of $735 thousand in 2012. 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) | **Years Ended December 31,** | |
|---|---|---|
| | **2012** | **2011** |
| Cash | $ 289 | $ 1,669 |
| Working capital | 1,350 | 3,142 |
| Net (loss) income attributed to MTI | (2,086 ) | 2,386 |
| Net cash (used in) provided by operating activities | (1,506 ) | 67 |
| Purchase of property, plant and equipment | (17 ) | (175 ) |

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 $122.2 million as of December 31, 2012. During the year ended December 31, 2012, the Company generated net loss attributed to MTI of $2.1 million, cash used in operating activities totaling $1.5 million and had

working capital of $1.4 million, a $1.8 million decrease from $3.1 million at December 31, 2011. This decrease was primarily attributed to cash used to fund operations during a loss year. During the second half of 2012, the Company continued its transitional phase and implemented personnel reductions throughout the organization while scaling back on discretionary spending to reduce future cash burn. These reductions, on an annualized basis, equated to approximately $1.0 million in cost savings. However, since this overall restructuring of the Company occurred late in 2012, the full impact of these savings will not be realized until 2013 and beyond. As such, management believes that the reorganized Company currently has adequate resources to avoid any other cost cutting measures which could adversely affect the business. As of December 31, 2012, we had no debt, no outstanding commitments for capital expenditures, approximately $289 thousand of cash available and $400 thousand available from our existing line of credit at MTI Instruments to fund our future operations.

If production levels rise at MTI Instruments, additional capital equipment may be required in the foreseeable future. We expect to spend approximately $125 thousand on capital equipment and $1.4 million in research and development on MTI Instruments products during 2013. We expect to finance any such potential future expenditures and continue funding our operations from our current cash position, our projected 2013 cash flow pursuant to management s current plan and draw downs from our existing $400 thousand line of credit at MTI Instruments. We may also seek to supplement our resources through the sales of stock, or assets, including our investment in MTI Micro. Besides the $400 thousand line of credit at MTI Instruments, we have no other commitments for funding future needs of the organization at this time and such additional financing during 2013 may not be available to us on acceptable terms, if at all.

While it cannot be assured, the new management team believes that, due in part to our backlog at December 31, 2012 of $1.6 million, the aforementioned cost reductions implemented in the second half of 2012, recent replacements in sales staff and projected inventory reductions, the Company expects to resume positive cash flows in 2013 to fund the Company s operations for the foreseeable future. However, if near-term revenue estimates are delayed or missed, the Company will 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 the business.

Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, operations have been suspended since late 2011 at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order, come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro, including the sale of its intellectual property portfolio and/or remaining assets.

***Line of Credit***

On September 20, 2011, MTI Instruments entered into a working capital line of credit with First Niagara Bank, N.A. Pursuant to the Demand Grid Note, 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 May 7, 2012. The line of credit is subject to a review date of June 30, 2013. Under the line of credit, MTI Instruments is required to hold a line balance of $0 for 30 consecutive days out during each consecutive year. As of December 31, 2012 and December 31, 2011 there were no amounts outstanding under the line of credit.

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

At December 31, 2012, the Company s order backlog was $1.6 million, compared to $861 thousand at December 31, 2011 due to the timing of shipments of aviation balancing systems, accessory kits and cable sets, predominately at the request of customers.

Our inventory turnover ratios and average accounts receivable days outstanding for the years ended December 31, 2012 and 2011 and their changes are as follows:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2012 | 2011 | Change |
| Inventory turnover | 2.1 | 4.0 | (1.9) |
| Average accounts receivable days outstanding | 41 | 42 | (1) |

The decline in inventory turnover is a result of a 20% increase in average inventory balances, driven by current production schedules, combined with a 43% lower sales volume.

The average accounts receivable days outstanding improved one day in 2012 compared with 2011 due to improved collection efforts.

**Off-Balance Sheet Arrangements**

There are no off balance sheet arrangements of the Company.

**Contractual Payment Obligations**

Contractual Payment Obligations are not required for a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K. As such, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information required under this Item.

**Market Risk**

Market risk is the risk that changes in market conditions will adversely affect earnings or cashflow. We categorize our market risks as interest rate risk and credit risk. Immediately below are detailed descriptions of the market risks and explanations as to how each of these risks are managed.

**Interest Rate Risk.** Interest rate risk is the risk that changes in interest rates could adversely affect earnings or cashflows. The Company s cash equivalents are sensitive to changes in interest rates. Interest rate changes would result in a change in interest income due to the difference between the current interest rates on cash. Interest rate risk sensitivity analysis is used to measure interest rate risk by computing estimated changes in cashflow as a result of assumed changes in market interest rates. A 10% decrease in 2012 interest rates would be immaterial to the Company s consolidated financial statements.

**Credit Risk.** Credit risk is the risk of loss we would incur if counterparties fail to perform their contractual obligations. Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents, trade accounts receivable and unbilled contract costs.

Our trade accounts receivable and unbilled contract costs and fees are primarily from sales to commercial customers, the U.S. government and state agencies. We do not require collateral and have not historically experienced significant credit losses related to receivables or unbilled contract costs and fees from individual customers or groups of customers in any particular industry or geographic area.

Our deposits are primarily in cash and deposited in commercial banks and investment companies. The Company has cash deposits in excess of federally insured limits. The amount of such deposits is essentially all cash at December 31, 2012.

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

The following 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 in Part II, Item 8 of 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 are believed to be 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, we review 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 installation to be performed by us, all revenue related to the product is deferred and recognized upon the completion of the installation.

We recognize revenue from development contracts based upon the relationship of actual costs to estimated costs to complete the contract. These types of contracts typically provide development services to achieve a specific scientific result relating to direct methanol fuel cell technology. Some of these contracts require us to contribute to the development effort. The customers for these contracts are commercial customers and various state and federal government agencies. While government agencies are providing revenue, we do not expect the government to be a significant end user of the resulting products. Therefore, we do not reduce funded research and product development expense by the funding received. When it appears probable that estimated costs will exceed available funding on fixed price contracts and we are not successful in securing additional funding, we record the estimated additional expense before it is incurred.

We apply accounting guidance on revenue recognition in the evaluation of commercially funded fuel cell research and prototype agreements to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments. For milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. When revenue qualifies for recognition it will be recorded as funded research and development revenue. The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenue recognized are reclassified from unfunded research and product development to funded research and product development.

**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. Share-based compensation expense recognized under these accounting methods for the year ended December 31, 2012 was $172 thousand. At December 31, 2012, total unrecognized estimated compensation expense related to non-vested awards granted prior to that date was $42 thousand, which is expected to be recognized over a weighted average remaining vesting period of 3.3 years.

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 the payment of cash by us.

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, 2012 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 in accordance with the simplified method for calculating the expected term assumption. The simplified method is a calculation based on using both historical term measures and projected termination estimates.

**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.

As a result of our analyses in 2011, we released a portion of our valuation allowance against our 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. For our analysis, we projected our 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 need to generate approximately $225 thousand of taxable income in each year over the next twenty years to ensure the realizability of the $1.5 million of deferred tax assets recorded on our balance sheet at December 31, 2012. 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. The remaining valuation allowance at December 31, 2012 is $17.8 million and relates primarily to net operating losses. We will continue to evaluate the ability to realize our deferred tax assets and related valuation allowance on a quarterly basis.

Our Federal net operating loss carryforwards as of December 31, 2012 were $69.1 million. Of these, $52.4 million are MTI s and $16.7 million are for MTI Micro. However, approximately $14.6 million of MTI Micro s NOLs have been reduced due to limitations caused by Section 382 ownership changes. Of the remaining NOL s, $4.1 million expire in 2020, with the remainder expiring through 2033.

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.

**Derivative Instruments**. We account for derivative instruments and embedded derivative instruments in accordance with the accounting standard for Accounting for Derivative Instruments and Hedging Activities, as amended. The amended standard requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position and measure these instruments at fair value. Fair value is estimated using the Black-Scholes Pricing model. We also follow accounting standards for the Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company s Own Stock, which requires freestanding contracts that are settled in a company s own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under these provisions a contract designated as an asset or a liability must be carried at fair value, with any changes in fair value recorded in the results of operations. A contract designated as an equity instrument can be included in equity, with no fair value adjustments required.

The derivatives are valued on a quarterly basis using the Black-Scholes Pricing model. Significant assumptions used in the valuation included exercise dates, closing prices for our common stock, volatility of our common stock, and a proxy risk-free interest rate. Gains (losses) on derivatives are included in Gain (loss) on derivatives in our consolidated statement of operations.

**Recent Accounting Pronouncements**

A discussion of recently adopted and new accounting pronouncements is included in Note 2 of the Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K

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

The Company is exposed to market risk from changes in interest rates and credit risk, which could affect its future results of operations and financial condition. We manage our exposure to these risks through regular operating and financing activities. See Market Risk, included in Part II, Item 7 above, Management s Discussion and Analysis of Financial Condition and Results of Operations.

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

The Company s Consolidated Financial Statements as required for a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K are filed herewith beginning at page F-1 and are incorporated in this Item 8 by reference.

Selected Quarterly Financial Data is not required for a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and in Item 10 (f)(1) of Regulation S-K. As such, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information required under this Item.

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

On June 18, 2012, the Audit Committee of the Board of Directors of the Company approved the dismissal of PricewaterhouseCoopers LLP (PwC) and engaged UHY LLP (UHY) as the Company s independent registered public accounting firm for the fiscal year ended December 31, 2012. The report of PwC for the fiscal years ended December 31, 2011 and 2010, contained no adverse opinions, disclaimer of opinion or qualification or modification as to uncertainty, audit scope or accounting principles, except that PwC's report on the Company's financial statements for the year ended December 31, 2010 included an explanatory paragraph noting that there was substantial doubt about the Company's ability to continue as a going concern. During the fiscal years ended December 31, 2011 and 2010 and the interim period from January 1, 2012 through June 18, 2012, there were no disagreements between the Company and PwC on any accounting principles or practices, financial statement disclosure or auditing scope or procedure, which, if not resolved to the satisfaction of PwC would have caused it to make reference to the subject matter of the disagreement in connection with its report. There were no reportable events as defined in paragraph (a)(1)(v) of Item 304 of Regulation S-K within the Company s fiscal years ended December 31, 2011 and 2010 or the period from January 1, 2012 through June 18, 2012.

The Company did not consult with UHY during the fiscal years ended December 31, 2011 and 2010 and the interim period from January 1, 2012 through June 18, 2012, on any matters described in Items 304(a)(2)(i) or 304(a)(2)(ii) of Regulation S-K.

**Item 9A: Controls and Procedures**

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

Our management, with the participation of our acting chief executive officer and chief financial officer, evaluated the effectiveness of MTI s disclosure controls and procedures as of December 31, 2012. 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, 2012, our acting 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* 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, 2012.

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
Acting 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(1) under the Exchange Act, during our fiscal quarter ended December 31, 2012 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 which has not been reported.

**PART III**

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

**(a) Directors**

Incorporated herein by reference is the information appearing under the captions Information about our Directors and Compliance with Section 16(a) of the Securities Exchange Act of 1934 in our definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

**(b) Executive Officers**

Incorporated herein by reference is the information appearing under the captions Executive Officers and Compliance with Section 16(a) of the Securities Exchange Act of 1934 in our definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

Incorporated herein by reference is the information appearing under the caption Board of Director Meetings and Committees Audit Committee in our definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

*Code of Ethics:* We have adopted a Code of Ethics for employees, officers and directors. The Code of Ethics is intended to comply with Item 406 of Regulation S-K of the Securities Exchange Act of 1934. A copy may be obtained at no charge by written request to the attention of our Secretary at 325 Washington Avenue Extension, Albany, New York 12205. A copy of the Code of Ethics is also available on our website at http://www.mechtech.com under Investor Relations, Corporate Governance.

**Item 11: Executive Compensation**

Incorporated herein by reference is the information appearing under the caption Executive Compensation in the Company s definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

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

Incorporated herein by reference is the information appearing under the caption Principal Stockholders in our definitive Proxy Statement for our 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

**Equity Compensation Plans**

As of December 31, 2012, 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 13 of the Consolidated Financial Statements in Part II, Item 8 of 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, 2012:

| Plan Category | Number of Securities To Be Issued Upon Exercise of Outstanding Options, Warrants, Rights[1] (a) | Weighted Average Exercise Price of Outstanding Options, Warrants, Rights (b) | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) [2] (c) |
|---|---|---|---|
| Equity compensation plans approved by security holders | 177,924 | $ 2.52 | 437,500 |
| Equity compensation plans not approved by security holders | 127,820 | 1.39 | -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 currently authorized to issue future awards without obtaining shareholder approval.

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

Incorporated herein by reference is the information appearing under the caption Certain Relationships and Related Transactions in our definitive Proxy Statement for the 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

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

Incorporated herein by reference is the information appearing under the caption Independent Accountants in our definitive Proxy Statement for the 2013 Annual Meeting of Stockholders to be filed with the SEC on or before April 26, 2013.

**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). |
| | 10-K Report for the year ended December 31, 2007). |

| | |
|---|---|
| 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).* |
| 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.

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).

10.26 Supplemental Lease Extension and Modification Agreement II dated March 14, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc.

10.27 Supplemental Lease Re-Instatement and Modification Agreement dated April 12, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc.

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|---|---|
| 10.28 | Supplemental Lease Extension and Modification Agreement III dated December 14, 2012, between Kingfisher, LLC and MTI MicroFuel Cells, Inc. |
| 10.29 | 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).* |
| 10.30 | 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).* |
| 10.31 | 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).* |
| 10.32 | 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). |
| 10.33 | 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). |
| 10.34 | 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). |
| 10.35 | 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). |
| 10.36 | 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). |
| 10.37 | 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 (Incorporated by reference from Exhibit 10.1 of the Company s Form 10-Q Report for the quarter ended June 30, 2009). |

| | |
|---|---|
| 10.38 | 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). |
| 10.39 | 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). |
| 10.40 | Common Stock and Warrant Purchase Agreement, dated January 11, 2010, by and among MTI MicroFuel Cells Inc. and Counter Point<br><br>Ventures Fund II, L.P. (Incorporated by reference from Exhibit 10.1 of the Company s Form 8-K Report filed January 14, 2010). |
| 10.41 | 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). |
| 10.42 | 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). |
| 10.43 | 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). |
| 10.44 | 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). |
| 14.1 | Code of Ethics (Incorporated by reference from Exhibit 14.1 of the Company s Form 10-K Report for the year ended December 31, 2005). |
| 16.1 | Letter from PricewaterhouseCoopers LLP dated June 21, 2012 (Incorporated by reference from Exhibit 16 of the Company s Form 8-K Report filed June 22, 2012). |
| 21 | Subsidiaries of the Registrant |
| 23.1 | Consent of Independent Registered Public Accounting Firm UHY LLP. |
| 23.2 | Consent of Independent Registered Public Accounting Firm PricewaterhouseCoopers 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 21, 2013

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

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

| Signature | Title | Date |
|---|---|---|
| /s/ Kevin G. Lynch<br>Kevin G. Lynch | Chairman, Acting Chief Executive Officer,<br>(Principal Executive Officer and Director) | March 21, 2013 |
| /s/ Frederick W. Jones<br>Frederick W. Jones | Chief Financial Officer and Secretary<br>(Principal Financial and Accounting Officer) | March 21, 2013 |
| /s/ Thomas J. Marusak<br>Thomas J. Marusak | Director | March 21, 2013 |
| /s/ William P. Phelan<br>William P. Phelan | Director | March 21, 2013 |
| /s/ E. Dennis O Connor<br>E. Dennis O Connor | Director | March 21, 2013 |

/s/ Walter L. Robb Director
Dr. Walter L. Robb March 21, 2013

**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of

Mechanical Technology, Incorporated

We have audited the accompanying consolidated balance sheet of Mechanical Technology, Incorporated as of December 31, 2012, and the related consolidated statements of operations, changes in equity and cash flows for the year then ended. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether 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 controls 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 audit provides 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, 2012, the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/UHY LLP

Albany, New York

March 21, 2013

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of

Mechanical Technology, Incorporated:

We have audited the accompanying consolidated balance sheet and the related consolidated statement of operations, consolidated statement of changes in equity, and consolidated statement of cash flows of Mechanical Technology, Incorporated and its subsidiaries as of December 31, 2011, and the results of their operations and their cash flows for the year then ended. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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 and its subsidiaries at December 31, 2011, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ PricewaterhouseCoopers LLP

Albany, New York

March 27, 2012

**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES**

**CONSOLIDATED BALANCE SHEETS**

**December 31, 2012 and 2011**

| (Dollars in thousands, except per share) | **December 31, 2012** | **2011** |
|---|---|---|
| **Assets** | | |
| **Current Assets:** | | |
| Cash | $289 | $1,669 |
| Accounts receivable | 1,674 | 1,881 |
| Inventories | 1,118 | 957 |
| Deferred income taxes, net | 16 | 20 |
| Prepaid expenses and other current assets | 100 | 102 |
| Total Current Assets | 3,197 | 4,629 |
| **Deferred income taxes, net** | 1,519 | 1,515 |
| **Property, plant and equipment, net** | 129 | 258 |
| Total Assets | $4,845 | $6,402 |
| | | |
| **Liabilities and Equity** | | |
| **Current Liabilities:** | | |
| Accounts payable | $208 | $191 |
| Accrued liabilities | 1,048 | 1,238 |
| Deferred revenue | 591 | 58 |
| Total Current Liabilities | 1,847 | 1,487 |
| | | |
| **Commitments and Contingencies (Note 16)** | | |
| **Equity:** | | |
| Common stock, par value $0.01 per share, authorized 75,000,000; 6,261,975 issued in 2012 and 6,259,975 issued in 2011, respectively | 63 | 63 |
| Additional paid-in-capital | 135,561 | 135,389 |
| Accumulated deficit | (122,183) | (120,097) |
| Common stock in treasury, at cost, 1,005,092 shares in both 2012 and 2011 | (13,754) | (13,754) |
| Total MTI stockholders (deficit) equity | (313) | 1,601 |
| Non-controlling interest | 3,311 | 3,314 |
| Total Equity | 2,998 | 4,915 |
| Total Liabilities and Equity | $4,845 | $6,402 |

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, 2012 and 2011**

| (Dollars in thousands, except per share) | Year Ended December 31, 2012 | Year Ended December 31, 2011 |
|---|---|---|
| Product revenue | $ 5,900 | $ 10,280 |
| Funded research and development revenue | | 13 |
| Total revenue | 5,900 | 10,293 |
| Operating costs and expenses: | | |
| Cost of product revenue | 2,967 | 3,781 |
| Research and product development expenses: | | |
| Funded research and product development | | 25 |
| Unfunded research and product development | 1,364 | 1,441 |
| Total research and product development expenses | 1,364 | 1,466 |
| Selling, general and administrative expenses | 3,813 | 4,994 |
| Operating (loss) income | (2,244) | 52 |
| Interest expense | (1) | |
| Gain on derivatives | | 73 |
| Other income (expense), net | 162 | (25) |
| (Loss) income before income taxes and non-controlling interest | (2,083) | 100 |
| Income tax (expense) benefit | (6) | 1,548 |
| Net (loss) income | (2,089) | 1,648 |
| Plus: Net loss attributed to non-controlling interest | 3 | 738 |
| Net (loss) income attributed to MTI | $ (2,086) | $ 2,386 |
| | | |
| (Loss) income per share attributable to MTI (Basic and Diluted) | $ (0.40) | $ 0.48 |
| Weighted average shares outstanding (Basic and Diluted) | 5,256,227 | 5,001,934 |

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

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**MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**

**For the Years Ended December 31, 2012 and 2011**

| | Common Stock | | | | Treasury Stock | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Additional Paid-in Capital | Accumulated Deficit | Shares | Amount | Total MTI Stockholders' Equity (Deficit) | Non-Controlling Interest (NCI) | Total Equity |
| **January 1, 2011** | 5,776,750 | $ 58 | $ 134,733 | $ (122,483) | 1,005,092 | $ (13,754) | $ (1,446) | $ 3,405 | $ 1,959 |
| Net income attributed to MTI | - | - | - | 2,386 | - | - | 2,386 | - | 2,386 |
| Stock based compensation | - | - | 656 | - | - | - | 656 | - | 656 |
| Issuance of shares restricted stock | 483,225 | 5 | - | - | - | - | 5 | - | 5 |
| Net loss attributed to NCI | - | - | - | - | - | - | - | (738) | (738) |
| Equity contribution to NCI | - | - | - | - | - | - | - | 647 | 647 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **December 31, 2011** | 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) |
| **December 31, 2012** | 6,261,975 | $ 63 | $ 135,561 | $ (122,183) | 1,005,092 | $ (13,754) | $ (313) | $ 3,311 | $ 2,998 |

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, 2012 and 2011**

| (Dollars in thousands) | Year Ended December 31, 2012 | Year Ended December 31, 2011 |
|---|---|---|
| **Operating Activities** | | |
| Net (loss) income | $ (2,089) | $ 1,648 |
| Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities: | | |
| Gain on derivatives | | (73) |
| Depreciation | 129 | 307 |
| (Gain) loss on disposal of property, plant and equipment | (126) | 23 |
| Deferred income taxes | | (1,535) |
| Stock based compensation | 172 | 661 |
| Bad debt expense | 2 | |
| Provision for excess and obsolete inventories | 103 | |
| Changes in operating assets and liabilities: | | |
| Accounts receivable | 205 | (795) |
| Inventories | (264) | (113) |
| Prepaid expenses and other current assets | 2 | 26 |
| Accounts payable | 17 | (64) |
| Income taxes payable | | (20) |
| Deferred revenue | 533 | 37 |
| Accrued liabilities | (190) | (35) |
| Net cash (used in) provided by operating activities | (1,506) | 67 |
| **Investing Activities** | | |
| Purchases of equipment | (17) | (175) |
| Proceeds from sale of equipment | 143 | 12 |
| Net cash provided by (used in) investing activities | 126 | (163) |
| **Financing Activities** | | |
| Proceeds from the sale of subsidiary equity and warrants issued | | 647 |
| Net cash provided by financing activities | | 647 |
| (Decrease) increase in cash and cash equivalents | (1,380) | 551 |

| | | |
|---|---|---|
| Cash and cash equivalents - beginning of year | 1,669 | 1,118 |
| Cash and cash equivalents - end of year | $ 289 | $ 1,669 |

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

**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. MTI operates in two segments: the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. (MTI Instruments), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells Inc. (MTI Micro), a variable interest entity (VIE) that is included in these consolidated financial statements and described further below in Note 2.

MTI Instruments was incorporated in New York on March 8, 2000 and is a worldwide supplier of precision non-contact physical measurement solutions, portable balance equipment and wafer inspection tools. MTI Instrument s products use a comprehensive array of technologies to solve complex, real world applications in numerous industries including manufacturing, semiconductor, solar, commercial and military aviation, automotive and data storage. MTI Instrument s products consist of electronic gauging instruments for position, displacement and vibration application within the design, manufacturing/production, test and research market; wafer characterization of semi-insulating and semi-conducting wafers within both the semiconductor and solar industries; tensile stage systems for materials testing at academic and industrial settings; and engine vibration analysis systems for both military and commercial aircraft.

MTI Micro was incorporated in Delaware on March 26, 2001, and, until its operations were suspended in late 2011, had been developing Mobion®, 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. Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, operations continue to remain suspended at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order, come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional

financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro, including the sale of its intellectual property portfolio and/or remaining assets. As of December 31, 2012, the Company owned approximately 47.6% of MTI Micro s outstanding common stock.

***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 $122.2 million and working capital of approximately $1.4 million at December 31, 2012. The Company suspended operations at MTI Micro in late 2011.

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. This restructuring is expected to yield cash flow savings of approximately $1.0 million annually. Based on the Company s projected cash requirements for operations and capital expenditures for 2013, its current available cash and cash equivalents of approximately $300 thousand, 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 and its VIE, MTI Micro. The Company is the primary beneficiary of the VIE. All inter-company balances and transactions are eliminated in consolidation. The Company reflects 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.

The Company has performed an analysis under the VIE model and determined that MTI Micro is a VIE. One of the criteria for determining whether an entity is a VIE is determining if the entity, MTI Micro, has equity at risk. Management has concluded that MTI Micro does not have equity at risk to fund operations into its next phase of development. Further, the Company has determined that it is the primary beneficiary of MTI Micro, and therefore should include MTI Micro s results of operations in the Company s consolidated financial statements.

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. MTI does not have control of the MTI Micro board of directors; however, at this time, the Company s board of directors and the MTI Micro board of directors consist of the same members. 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. As of December 31, 2012, MTI, Counter Point Ventures Fund II, LP (Counter Point) and Dr. Walter L. Robb, a member of the Company s and MTI Micro s board of directors own 47.6%, 45.2% and 5.1% of the common shares of MTI Micro, respectively. Counter Point is a venture capital fund sponsored and managed by Dr. Robb. Since no entity of the related parties has power but, as a group, the Company and its related parties have the power, then the party within the related party group that is most closely associated with the VIE, MTI Micro, is the primary beneficiary. Even though Dr. Robb and Counterpoint combined control a majority of the outstanding common stock, and they have 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, they have not elected to do so. The Company continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual property, and has a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, the Company has made the largest investment and been the principal funder of MTI Micro. The Company has also been exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and

circumstances, management believes the Company is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary.

Should there be a change in the facts and circumstances (such as undertaking additional activities, a change in governance or a change to the related party group) in the future, management will reassess whether the Company remains the primary beneficiary and should continue to consolidate MTI Micro in the Company s consolidated financial statements.

Non-controlling interests (NCI) are 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, 2012 and 2011. The estimated fair values have been determined through information obtained from market sources, where available.

***Accounting for Derivative Instruments***

The Company recognizes all derivatives as either assets or liabilities in the statement of financial position and measures these instruments at fair value. The fair value of the derivative is recorded in the Derivative liability line on the consolidated balance sheets, and is valued quarterly using the Black-Scholes Option Pricing Model. The Company also follows the accounting provisions for Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company s Own Stock, which requires freestanding contracts that are settled in a company s own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under these provisions, a contract designated as an asset or a liability must be carried at fair value, with any changes in fair value recorded in the results of operations. A contract designated as an equity instrument can be included in equity, with no fair value adjustments required. Based on the terms and conditions of the warrant of the Company, the instrument does not qualify to be designated as an equity instrument and is therefore recorded as a derivative liability.

The asset/liability derivatives are valued on a quarterly basis using the Black-Scholes Option Pricing Model. Significant assumptions used in the valuation include exercise dates, closing market prices for the Company s common stock, volatility of the Company s common stock, and proxy risk-free interest rates. Gains (losses) on derivatives are included in the Gain (loss) on derivatives line on the consolidated statements of operations.

***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:

| | |
|---|---|
| Leasehold improvements | Lesser of the life of the lease or the useful life of 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.

***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.

*Funded Research and Development Revenue*

The Company performs funded research and development for government agencies under both cost reimbursement and fixed-price contracts. Cost reimbursement contracts provide for the reimbursement of allowable costs. On fixed-price contracts, revenue is generally recognized on the percentage of completion method based upon the proportion of costs incurred to the total estimated costs for the contract. Revenue from reimbursement contracts is recognized as the services are performed. In each type of contract, the Company generally receives periodic progress payments or payments upon reaching interim milestones. When the current estimates of total contract revenue for commercial development contracts indicate a loss, a provision for the entire loss on the contract is recorded. Any losses incurred in performing funded research and development projects are recognized as research and development expense as incurred. When government agencies are providing funding they do not expect the government to be the only significant end user of the resulting products. These contracts do not require delivery of products that meet defined performance specifications, but are best efforts arrangements to achieve overall research and development objectives. Included in accounts receivable are billed and unbilled work-in-progress on contracts. Billings in excess of contract revenues earned are recorded as deferred revenue. While the Company s accounting for government contract costs is subject to audit by the sponsoring entity, in the opinion of management, no material adjustments are expected as a result of such audits. Adjustments are recognized in the period made.

*Commercial Research and Prototype Agreement Income*

The Company also applies the proper accounting guidance in the evaluation of commercially funded fuel cell research and prototype agreements in order to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments, and for milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. Under

this policy, when revenue qualifies for recognition it will be recorded in the Consolidated Statements of Operations in the line titled Funded research and development revenue. The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenues recognized are reclassified from the line titled Unfunded research and product development to Funded research and product development in the Consolidated Statements of Operations.

*Prototype Evaluation Agreements*

The Company recognizes income derived from its micro fuel cell prototype evaluation agreements, where the Company receives a lump-sum amount from Original Equipment Manufacturers (OEMs) which are testing the Company s Mobion® prototypes for an OEM-specific application, upon delivery of the evaluation prototypes. These prototypes are returned to the Company once the evaluation period expires. There are no warranties given to any OEM regarding these prototypes, and each evaluation agreement is considered a customer specific arrangement. The costs associated with executing these prototype evaluation arrangements are recorded in the Consolidated Statements of Operations in the line titled Unfunded research and development expense as they are incurred and income derived from these arrangements is offset against the expense.

***Cost of Product Revenue***

Cost of product revenue includes material, labor, overhead and shipping and handling costs. Costs incurred in connection with funded research and development arrangements are included in funded research and product development expenses.

***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, 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. As of December 31, 2011, the Company had $58 thousand in deferred revenue, which primarily consisted of a tensile tester which had been shipped but not yet accepted by the customer.

***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 $20 thousand and $26 thousand at December 31, 2012 and 2011, 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, 2012, 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 and MTI Micro has two share-based employee compensation plans, all of which are described more fully in Note 13, 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 titles 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, trade accounts receivable and unbilled contract costs. The Company s trade accounts receivable and unbilled contract costs and fees 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 or unbilled contract costs and fees 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. The amount of such deposits is essentially all cash at December 31, 2012.

***Research and Development Costs***

The Company expenses research and development costs as incurred. The Company incurred research and development costs of approximately $1.4 million and $1.5 million, which was primarily related to MTI Instruments, for the years ended December 31, 2012 and 2011, respectively.

***Advertising Costs***

The Company expenses advertising costs as incurred. The Company incurred advertising costs of approximately $38 thousand and $43 thousand, which was entirely related to MTI Instruments, for the years ended December 31, 2012 and 2011, respectively.

***Other Comprehensive Income***

The Company had no other comprehensive income (loss) items for the years ended December 31, 2012 and 2011.

***Effect of Recent Accounting Pronouncements***

Other 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) | 2012 | 2011 |
|---|---|---|
| U.S. and State Government | $ 874 | $ 990 |
| Commercial | 800 | 891 |
| Total | $ 1,674 | $ 1,881 |

As of December 31, 2012 and 2011, the Company had no allowance for doubtful trade accounts receivable.

**4. Inventories**

Inventories consist of the following at December 31:

| (dollars in thousands) | 2012 | 2011 |
|---|---|---|
| Finished goods | $ 265 | $ 310 |
| Work in process | 482 | 211 |
| Raw materials | 371 | 436 |
| Total | $ 1,118 | $ 957 |

**5. Property, Plant and Equipment**

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

| | **2012** | **2011** |
|---|---|---|
| **(dollars in thousands)** | | |
| Leasehold improvements | $ 954 | $ 1,213 |
| Computers and related software | 1,709 | 2,130 |
| Machinery and equipment | 1,390 | 3,541 |
| Office furniture and fixtures | 271 | 457 |
| | 4,324 | 7,341 |
| Less: Accumulated depreciation | 4,195 | 7,083 |
| | $ 129 | $ 258 |

Depreciation expense was $129 thousand and $307 thousand for 2012 and 2011, respectively. Repairs and maintenance expense was $57 thousand and $39 thousand for 2012 and 2011, respectively. In conjunction with the suspension of MTI Micro operations in late 2011, sales of certain surplus equipment on hand were made during 2012. This resulted in a net gain on sale of $130 thousand. As of December 31, 2012, all $143 thousand 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:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| Federal | $ | $ |
| State | (6) | 13 |
| Deferred | | 1,535 |
| Total | $ (6) | $ 1,548 |

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

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| Deferred tax benefit | $ (2,783) | $ (402) |
| Net operating loss carry forward | 772 | (6,035) |
| Valuation allowance | 2,011 | 7,972 |
| | $ | $ 1,535 |

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:

| | 2012 | 2011 |
|---|---|---|
| Federal statutory tax rate | 34 % | 34 % |
| State taxes, net of federal tax effect | | (45 ) |
| Impact of adjustments to state tax rates | | 3,099 |
| Change in valuation allowance | 97 | (7,972 ) |
| Permanent tax difference on derivative valuation | | (25 ) |
| IRC Section 382 Limitation | | 3,097 |
| Expiring net operating loss | | 3 |
| Adjustment to opening deferred tax balance | (131 ) | 260 |
| Other, net | | 1 |
| Tax Rate | 0% | (1,548 )% |

Pre-tax (loss) income before non-controlling interests was $(2.1) million and $100 thousand for 2012 and 2011, 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:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| Current deferred tax assets: | | |

| | | |
|---|---|---|
| Inventory valuation | $ 120 | $ 84 |
| Inventory capitalization | 7 | 11 |
| Vacation pay | 35 | 57 |
| Warranty and other sale obligations | 7 | 9 |
| Other reserves and accruals | 29 | 111 |
| | 198 | 272 |
| Valuation allowance current | (182) | (252) |
| Net current deferred tax assets | $ 16 | $ 20 |
| Noncurrent deferred tax assets: | | |
| Net operating loss | $ 18,426 | $ 17,654 |
| Property, plant and equipment | 51 | 53 |
| Stock options | 173 | 2,880 |
| Research and development tax credit | 450 | 450 |
| Alternative minimum tax credit | 54 | 54 |
| | 19,154 | 21,091 |
| Valuation allowance noncurrent | (17,635) | (19,576) |
| Non-current net deferred tax assets | $ 1,519 | $ 1,515 |

As of December 31, 2012, 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 continues to expect 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, 2012. 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. The Company needs to generate approximately $225 thousand of taxable income in each year over the next twenty years to ensure the realizability of the approximately $1.5 million of deferred tax assets recorded on the balance sheet at December 31, 2012.

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, 2012 and 2011 was $17.8 million and $19.8 million, respectively. Activity in the valuation allowance for deferred tax assets is as follows as of December 31:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| Valuation allowance, beginning of year | $ 19,828 | $ 27,800 |
| Deductions resulting in income tax benefit | | (1,535) |
| Additions charged to other accounts | | |
| Deduction charged to other accounts | (2,011) | (6,437) |
| Valuation allowance, end of year | $ 17,817 | $ 19,828 |

The remaining valuation allowance at December 31, 2012 of $17.8 million primarily relates to net operating losses. The Company will continue to evaluate the ability to realize its deferred tax assets and related valuation allowances on a quarterly basis.

***Net operating losses**:*

At December 31, 2012, the Company has unused Federal net operating loss carry forwards of approximately $69.1 million.

As a result of the conversion of the Bridge Notes in December of 2009, MTI no longer maintained an 80% or greater ownership in MTI Micro. Thus, MTI Micro is 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 has elected to reduce a portion of its stock tax basis in MTI Micro by "reattributing" a portion of MTI Micro's net operating loss carryforwards to MTI, for an amount equivalent to its built in loss 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 net operating losses (reducing its tax basis in MTI Micro's stock by the same amount), leaving MTI Micro with approximately $13 million of separate company net operating loss carry forwards at the time of conversion of the Bridge Notes.

As of December 31, 2012, it is estimated that MTI has net operating loss carryforwards of approximately $52.4 million and MTI Micro has net operating loss carryforwards of approximately $16.7 million. Of the Company s carry forwards, $1.3 million represents windfall tax benefits from stock option transactions, the tax effect of which are not included in the Company s net deferred tax assets.

In addition, a formal Section 382 study was performed for both the Company and MTI Micro. The Company's and/or its subsidiaries ability to utilize their net operating loss carryforwards may be significantly limited by Section 382 of the IRC of 1986, as amended, if the Company or any of its subsidiaries undergoes an ownership change as a result of changes in the ownership of the Company's or its subsidiaries outstanding stock pursuant to the exercise of the warrants or otherwise. 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, IRC Section 382 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change net operating loss carryforwards and certain recognized built-in losses. As of December 31, 2012, the Company does not appear to have had an ownership change for IRC Section 382 purposes. However, as a result of MTI Micro s issuance of stock between 2009 and 2011, MTI Micro has had an ownership change for IRC Section 382 purposes which places limitations on the utilization of MTI Micro s separate company net operating loss carryforwards. MTI Micro s net operating losses have been reduced by $14.6 million. This net operating loss limited by IRC Section 382 is not reflected in the Company s deferred tax asset as of December 31, 2012 and 2011.

There were no expirations of net operating losses in 2012. The remaining Federal net operating loss carry forwards, if unused, will continue to expire beginning in 2020 for the Company, and 2022 for MTI Micro.

***Unrecognized tax benefits:***

A reconciliation of the beginning and ending amount of unrecognized tax benefits in accordance with accounting standards that address income taxes for 2012 and 2011 is as follows:

| | **2012** | **2011** |
|---|---|---|

| (dollars in thousands) | | |
|---|---|---|
| Balance as of January 1, | $ 1,186 | $1,186 |
| Deductions for settlements | | |
| Balance as of December 31, | $ 1,186 | $1,186 |

In future periods, if $1.2 million of these unrecognized benefits become supportable, the Company may not recognize a change in its effective tax rate as long as it remains in a partial valuation allowance position. Additionally the Company does not have uncertain tax positions that it expects will increase or decrease within twelve months of this reporting date. In accordance with the Company s accounting policy, it recognizes interest and penalties related to uncertain tax positions as a component of tax expense. This policy did not change as a result of the adoption of accounting guidance for uncertain tax positions. The Company did not recognize any interest or penalties in 2012 and 2011. For both December 31, 2012 and 2011, the Company had $0 of accrued interest and penalties related to uncertain tax positions.

The Company files income tax returns, including returns for its subsidiaries, with federal and state jurisdictions. The Company is no longer subject to IRS or NYS examinations for its federal and state returns for any periods prior to 2009, although carryforward attributes that were generated prior to 2009 may still be adjusted upon examination by the IRS if they either have been or will be used in a future period.

**7. Accrued Liabilities**

Accrued liabilities consist of the following at December 31:

| (dollars in thousands) | 2012 | 2011 |
|---|---|---|
| Salaries, wages and related expenses | $ 309 | $ 593 |
| Liability to shareholders for previous acquisition | 363 | 363 |
| Legal and professional fees | 126 | 126 |
| Warranty and other sale obligations | 20 | 26 |
| Commissions | 31 | 21 |
| Other | 199 | 109 |
| | $ 1,048 | $ 1,238 |

**8. Fair Value Measurement**

In determining the appropriate levels, the Company performs a detailed analysis of financial assets and liabilities. At each reporting period, all assets and liabilities for which the fair value measurements are based upon significant unobservable inputs were classified as Level 3. The derivative liability was valued using the Black-Scholes Option Pricing Model which is based upon unobservable inputs. The derivative liability was $0 as of December 31, 2012 and December 31, 2011. The Company had no Level 1 and no Level 2 assets and liabilities as of December 31, 2012 and December 31, 2011.

The following is a rollforward of Level 3 fair value instruments for the year ended December 31, 2011:

(Dollars in thousands)

| Instrument | Beginning Balance as of Jan. 1, 2011 | Total (Gains) / Losses Realized and Unrealized | Purchases, Issuances, Sales and Settlements | Ending Balance as of December 31, 2011 |
|---|---|---|---|---|
| Derivative liability | $ 73 | $ (73) | $ | $ |
| Total Level 3 instruments | $ 73 | $ (73) | $ | $ |

**9. Stockholders Equity**

**Common Stock**

The Company has one class of common stock, par value $.01. Each share of the Company s common stock is entitled to one vote on all matters submitted to stockholders. As of December 31, 2012 and 2011 there were 5,256,883 and 5,254,883 shares of common stock issued and outstanding, respectively.

**Sale of Common Stock**

On December 15, 2006, the Company entered into agreements with certain investors to sell 756,944 shares of common stock and warrants to purchase 378,472 shares of common stock for an aggregate purchase price of $10.9 million. The common stock and warrants were sold in units, with each unit consisting of 12.5 shares of common stock and a warrant to purchase 6.25 shares of common stock, at an exercise price of $18.16 per share. Each non-certificated unit was sold at a negotiated price of $180.00. The shares of common stock and warrants were immediately separable and were issued separately (see Warrants Issued below). The common stock, the warrants and shares issuable upon exercise of the warrants were registered with the Securities and Exchange Commission.

**Warrants Issued**

On December 20, 2006, the Company issued warrants to investors to purchase 378,472 shares of the Company s common stock at an exercise price of $18.16 per share. The warrants became exercisable on June 20, 2007 and expired on December 19, 2011. These warrants were fair valued by the Company until the expiration of the warrants. The fair value of the warrants at December 31, 2011 was $0.

**Reservation of Shares**

The Company has reserved common shares for future issuance as follows as of December 31, 2012:

| | |
|---|---|
| Stock options outstanding | 305,744 |
| Common stock available for future equity awards or issuance of options | 437,500 |
| Number of common shares reserved | 743,244 |

**10. Issuance of Common Stock, Warrants and Stock Options by MTI Micro**

MTI Micro was formed on March 26, 2001, and, as of December 31, 2012, the Company owned approximately 47.6% 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. The number of shares of MTI Micro common stock authorized for issuance is 240,000,000 as of December 31, 2012.

**Common Stock Issued MTI Micro**

On January 11, 2010, MTI Micro entered into a Purchase Agreement with Counter Point. Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb, a member of the Board of Directors of the Company and MTI Micro, and a current stockholder of MTI Micro. Pursuant to the Purchase Agreement, MTI Micro issued and sold to Counter Point 28,571,429 shares of common stock, par value $0.01 per share (the MTI Micro Common Stock), at a purchase price per share of $0.07, over a period of twelve months, and warrants (MTI Micro Warrants) to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under the Purchase Agreement at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing). Nine Closings occurred through December 31, 2010, with MTI Micro raising $1.9 million from the sale of 26,952,386 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 5,390,477 shares of MTI Micro Common Stock to Counter Point. The final Closing occurred on January 5, 2011, with MTI Micro raising $113 thousand from the sale of 1,619,043 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 323,809 shares of MTI Micro Common Stock to Counter Point.

On February 9, 2011, Amendment No. 1 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 1, MTI Micro issued and sold to Counter Point 6,428,574 shares of MTI Micro Common Stock at a purchase price per share of $0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under Amendment No. 2 at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over four one-month closing periods (each, a Closing Period). Four Closings occurred through September 30, 2011, with MTI Micro raising $450 thousand from the sale of 6,428,574 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 1,285,715 shares of MTI Micro Common Stock to Counter Point.

On September 23, 2011, Amendment No. 2 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 2, MTI Micro issued and sold to Counter Point 1,200,000 shares of MTI Micro Common Stock at a purchase price per share of $0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under Amendment No. 2 at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over four one-month closing periods (each, a Closing Period). Four Closings occurred through December 31, 2011, with MTI Micro raising $84 thousand from the sale of 1,200,000 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 240,000 shares of MTI Micro Common Stock to Counter Point.

The following table represents changes in ownership between the Company and non-controlling interests (NCI) in common shares of MTI Micro:

| | | **MTI** | | **Non Controlling Interests** | | |
|---|---|---|---|---|---|---|
| | **Average Price** | **Shares** | **Ownership %** | **Shares** | **Ownership %** | **Total Shares** |
| Balance at 12/31/10 | | 75,049,937 | 50.6 | 73,325,490 | 49.4 | 148,375,427 |
| Stock issued under Purchase Agreement, 2011 | $0.07 | | | 1,619,043 | | 1,619,043 |
| Balance after Purchase Agreement | | 75,049,937 | 50.04 | 74,944,533 | 49.97 | 149,994,470 |
| Stock issued under Amendment No. 1 | $0.07 | | | 6,428,574 | | 6,428,574 |
| Stock issued under Amendment No. 2 | $0.07 | | | 1,200,000 | | 1,200,000 |
| Balance at 12/31/11 | | 75,049,937 | 47.61 | 82,573,107 | 52.39 | 157,623,044 |
| Balance at 12/31/12 | | 75,049,937 | 47.61 | 82,573,107 | 52.39 | 157,623,044 |

**Reservation of Shares**

MTI Micro has reserved common shares for future issuance, broken down between the Company and NCI, as follows as of December 31, 2012:

| | MTI | NCI | Total |
|---|---|---|---|
| Stock options outstanding | | 1,530,040 | 1,530,040 |
| Warrants outstanding | 32,904,136 | 12,196,411 | 45,100,547 |
| Number of shares reserved for outstanding options and warrants | 32,904,136 | 13,726,451 | 46,630,587 |

During the year ended December 31, 2012, there were 23,594,180 option cancellations. MTI Micro has 36,472,960 stock options available for issuance as of December 31, 2012.

As of December 31, 2012, the Company owned an aggregate of approximately 47.6% of the outstanding shares of MTI Micro or 53.3% of the outstanding common stock and warrants issued of MTI Micro, and Dr. Robb and Counter Point owned approximately 45.2% and 5.1%, respectively, of the outstanding shares of MTI Micro or 40.3% and 4.3%, respectively of the outstanding common stock and warrants issued of MTI Micro.

**Warrants Issued MTI Micro**

On December 9, 2009, MTI Micro issued warrants to the then current shareholders of MTI Micro, including the Company, without consideration, to purchase 32,779,310 shares of MTI Micro Stock at an exercise price of $0.07 per share. The warrants became exercisable on December 9, 2010 and expire on December 8, 2017. The warrants have been accounted for as an equity distribution of $2.0 million, including warrants to the Company with a value of $2.0 million, which were eliminated in consolidation.

On December 9, 2009, MTI Micro issued warrants to the Bridge Investors of MTI Micro, including the Company, to purchase 5,081,237 shares of MTI Micro Stock at an exercise price of $0.07 per share. The MTI Micro Warrants became exercisable on December 9, 2009 and will expire on the earlier of: (i) April 15, 2014; (ii) immediately prior to a change in control; or (iii) immediately prior to an initial public offering of MTI Micro. The MTI Micro Warrants were issued without consideration and were accounted for as equity and a loss on extinguishment of debt was recorded in the amount of $289 thousand, including warrants to the Company with a value of $57 thousand, which were eliminated in consolidation.

Under the Purchase Agreement entered into on January 11, 2010, MTI Micro issued 5,714,286 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of $0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

Under Amendment No. 1 entered into on February 9, 2011, MTI Micro issued 1,285,715 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of $0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

Under Amendment No. 2 entered into on September 23, 2011, MTI Micro issued 240,000 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of $0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

Refer to Note 17 for further discussion.

**11. Retirement Plan**

The Company maintains a voluntary savings and retirement plan under IRC Section 401(k) covering substantially all employees. Employees must complete six months of service and have attained the age of twenty-one prior to becoming eligible for participation in the plan. The Company plan allows eligible employees to contribute a percentage of their compensation on a pre-tax basis and the Company matches employee contributions dollar for dollar up to a discretionary amount, currently 4%, of the employee s salary, subject to annual tax deduction limitations. Company matching contributions vest at a rate of 25% annually for each year of service completed. Company matching contributions were $92 thousand and $99 thousand for 2012 and 2011, respectively. The Company may also make additional discretionary contributions in amounts as determined by management and the Board of Directors. There were no additional discretionary contributions by the Company for the years 2012 or 2011.

**12. Income (Loss) per Share**

The following table sets forth the reconciliation of the numerators and denominators of the basic and diluted per share computations for continuing operations for the years ended December 31:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands, except shares)** | | |
| **Numerator:** | | |
| Net (loss) income | $ (2,086) | $ 2,386 |
| **Denominator:** | | |
| **Basic EPS:** | | |
| Common shares outstanding, beginning of period | 5,254,883 | 4,771,658 |
| Weighted average common shares issued during the period | 1,344 | 230,276 |
| Denominator for basic earnings per common shares | | |
| Weighted average common shares | 5,256,227 | 5,001,934 |
| **Diluted EPS:** | | |
| Common shares outstanding, beginning of period | 5,254,883 | 4,771,658 |
| Weighted average common shares issued during the period | 1,344 | 230,276 |
| Denominator for diluted earnings per common shares - | | |
| Weighted average common shares | 5,256,227 | 5,001,934 |

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2012 were options to purchase 305,744 shares of the Company s common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

Not included in the computation of earnings per share, assuming dilution for the year ended December, 2011, were options to purchase 797,437 shares of the Company s common stock. These potentially dilutive items were excluded even though the average market price of the common stock exceeded the exercise prices for a portion of the options because the calculation of incremental shares resulted in an anti-dilutive effect.

**13. Stock Based Compensation**

**MTI Option Plans**

Stock-based incentive awards are provided to employees and directors under the terms of the Company s 1996 Stock Incentive Plan (1996 Plan), 1999 Employee Stock Incentive Plan (1999 Plan), 2006 Equity Incentive Plan (2006 Plan), which was amended and restated effective June 30, 2011 and September 16, 2009 and 2012 Equity Incentive Plan (the 2012 Plan), (collectively, the Plans). Awards under the Plans have generally included at-the-money options and restricted stock grants.

The 1996 Plan was approved by stockholders during December 1996 and expired during October 2006. The 1996 Plan provided an initial aggregate number of 500,000 shares of common stock to be awarded or issued. The number of shares available to be awarded under the 1996 Plan and awards outstanding were adjusted for stock splits and rights offerings. The total number of shares which may be awarded under the 1996 Plan was 468,352 during 2005. Under the 1996 Plan, the Board of Directors was authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others.

The 1999 Plan was adopted by the Company s Board of Directors, approved by stockholders on March 18, 1999 and expired during 2009. The 1999 Plan provided an initial aggregate number of 1,000,000 shares of common stock to be awarded or issued. The number of shares to be awarded under the 1999 Plan and awards outstanding were adjusted for stock splits, and during 2005, 2006, and 2007, the total number of shares which could be awarded under the 1999 Plan was 562,500 shares. Under the 1999 Plan, the Board of Directors was authorized to issue stock-based awards to officers, employees and others.

The 2006 Plan was adopted by the Company s Board of Directors on March 16, 2006 and approved by stockholders on May 18, 2006. The plan was amended and restated by the Board of Directors effective September 16, 2009 and June 30, 2011. The September 16, 2009 Amended and Restated 2006 Equity Incentive Plan increased the initial aggregate number of 250,000 shares of common stock which may be awarded or issued to 600,000, and the June 30, 2011 Amended and Restated 2006 Equity Incentive Plan increased the aggregate number of shares of common stock which may be awarded or issued to 1,200,000. The number of shares which may be awarded under the 2006 Plan and awards outstanding has been adjusted for stock splits and other similar events. 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. In connection with seeking stockholder approval of the 2012 Plan, the Company agreed not to make further awards under the 2006 Plan.

Stock-based compensation expense for the year ended December 31, 2011 was generated from fully vested restricted stock grants and fully vested stock awards. Stock options are awards which allow holders to purchase shares of the Company s common stock at a fixed price. Stock options issued to employees generally vest 50% immediately, and then quarterly over the next three years. Options issued to non-employee members of the MTI Board of Directors generally vest upon grant. Certain options granted may be fully or partially exercisable immediately, may vest on other than a four year schedule or vest upon attainment of specific performance criteria. Restricted stock awards generally vest one year after the date of grant; however, certain awards may vest immediately or vest upon attainment of specific performance criteria. Option exercise prices are generally equivalent to the closing market value price of the Company s common stock on the date of grant. Unexercised options generally terminate either seven or ten years after date of grant.

The 2012 Plan was adopted by the Company s Board of Directors on April 14, 2012 and approved by stockholders on June 14, 2012. The 2012 Plan provides an initial aggregate number of 600,000 shares of common stock which may be awarded or issued. The number of shares which may be awarded under the 2012 Plan and awards outstanding can be subject to adjustment on account of any recapitalization, reclassification, stock split, reverse stock split and other dilutive changes in Common Stock. Under the 2012 Plan, the Board of Directors is authorized to issue stock options (incentive and nonqualified), stock appreciation rights, restricted stock, restricted stock units and other stock-based awards to employees, officers, directors, consultants and advisors of the Company and its subsidiaries. Incentive stock options may only be granted to employees of the Company and its subsidiaries.

Stock-based compensation expense for the year ended December 31, 2012 was generated from stock option awards. Stock options are awards which allow holders to purchase shares of the Company s common stock at a fixed price. Under the 2012 Plan, stock options issued to employees generally vest 25% over four years. Options issued to non-employee members of the MTI Board of Directors generally vest 25% over four years. Certain options granted

may be fully or partially exercisable immediately, may vest on other than a four year schedule or vest upon attainment of specific performance criteria. Restricted stock awards generally vest one year after the date of grant; however, certain awards may vest immediately or vest upon attainment of specific performance criteria. Option exercise prices are generally equivalent to the closing market value price of the Company s common stock on the date of grant. Unexercised options generally terminate ten years after date of grant.

The Company estimates the fair value of stock options using a Black-Scholes valuation model. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the Company s stock, an appropriate risk-free rate, and the Company s dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the Company. The Company s estimate of an expected option term was calculated in accordance with the simplified method for calculating the expected term assumption.

During 2012, the Company granted 2,000 shares of the Company s common stock from the 2006 Plan, which immediately vested and the stock was issued to the holder. The shares were granted from the 2006 Plan before the 2012 Plan was approved by the shareholders. The fair value of this grant was $0.31 per share and was based on the closing market price of the Company s common stock on the date of grant.

During 2012, the Company granted 224,500 options to purchase the Company s common stock from the 2012 Plan, which generally vest 25% on each of the first four anniversaries of the date of the award. The exercise price of these grants was $0.29 per share and was based on the closing market price of the Company s common stock on the dates of grant. Using a Black-Scholes Option Pricing Model, the weighted average fair value of these options was $0.27 per share and was estimated at the date of grant. During 2012, 62,000 options of the 2012 grants were cancelled before vesting occurred.

The following table presents the weighted-average assumptions used for options granted under the 2012 Plan:

| | 2012 | |
|---|---|---|
| Option term (years) | 4.73 | |
| Volatility | 183.56 | % |
| Risk-free interest rate | 0.71 | % |
| Dividend yield | 0 | % |
| Weighted-average fair value per option granted | $ 0.27 | |

During 2011, the Company granted 483,225 shares of restricted stock, which immediately vested and the stock was issued to the holders. The fair value of these grants was based on the closing market price of the Company s common stock on the date of grant. The weighed average fair value of these grants was $0.62 per share.

There were no stock options granted during 2011.

Share-based compensation expense recognized in the Consolidated Statements of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. The revised accounting standard requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Total share-based compensation expense, related to all of the Company s share-based awards, recognized for the years ended December 31, was comprised as follows:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands, except eps)** | | |
| Unfunded research and product development | $3 | $18 |
| Selling, general and administrative | 25 | 370 |
| Share-based compensation expense | $28 | $388 |
| Impact on basic and diluted EPS | $ 0.005 | $0.08 |

Total unrecognized compensation costs related to non-vested awards as of December 31, 2012 is $42 thousand, and is expected to be recognized over a weighted-average remaining vesting period of approximately 3.30 years.

As a result of the amendments in 2011 and 2009 of the 2006 Plan, 600,000 and 350,000 additional shares were made available for granting, respectively. Presented below is a summary of the Company s stock option plans activity for the years ended December 31:

| | **2012** | **2011** |
|---|---|---|
| Shares under option, beginning | 797,437 | 878,986 |
| Granted | 226,500 | |
| Exercised | (2,000 ) | |
| Forfeited | (272,827 ) | (4,851 ) |
| Expired/canceled | (443,366 ) | (76,698 ) |
| Shares under option, ending | 305,744 | 797,437 |
| Options exercisable | 137,436 | 719,229 |
| Remaining shares available for granting of options | 437,500 | 261,601 |

The weighted average exercise price for the Plans is as follows for each of the years ended December 31:

| | **2012** | **2011** |
|---|---|---|
| Shares under option, beginning | 10.56 | 11.41 |
| Granted | 0.29 | |
| Exercised | | |
| Forfeited | 1.00 | 3.23 |
| Expired/canceled | 17.12 | 20.73 |
| Shares under option, ending | 2.05 | 10.56 |
| Options exercisable, ending | 4.17 | 11.63 |

The following table summarizes information for options outstanding and exercisable for the Plans as of December 31, 2012:

| | Outstanding Options | | | Options Exercisable | |
|---|---|---|---|---|---|
| Exercise Price Range | Number | Weighted Average Remaining Contractual Life | Weighted Average Exercise Price | Number | Weighted Average Exercise Price |
| $0.00 - $1.15 | 258,038 | 8.84 | $ 0.40 | 89,730 | $ 0.57 |
| $1.16 - $3.60 | 24,000 | 6.87 | $ 1.40 | 24,000 | $ 1.40 |
| $3.61 - $14.24 | 8,564 | 1.28 | $ 10.55 | 8,564 | $ 10.55 |
| $14.25 - $22.64 | 9,950 | 0.91 | $ 19.16 | 9,950 | $ 19.16 |
| $22.65 - $33.36 | 2,815 | 1.57 | $ 32.24 | 2,815 | $ 32.24 |
| $33.37 - $50.24 | 2,377 | 1.47 | $ 49.32 | 2,377 | $ 49.32 |
| | 305,744 | 8.10 | $ 2.05 | 137,436 | $ 4.17 |

The aggregate intrinsic value (i.e. the difference between the closing stock price and the price to be paid by the option holder to exercise the option) is $0 for the Company s outstanding options and $0 for the exercisable options as of December 31, 2012. The amounts are based on the Company s closing stock price of $0.17 as of December 31, 2012.

There were no unvested restricted stock grants for the year ended December 31, 2012 and 2011.

Non-vested options activity is as follows for each of the years ended December 31:

| | 2012 Options | 2012 Weighted Average Exercise Price |
|---|---|---|
| Non-vested options balance, beginning January 1 | 75,291 | $ 0.75 |
| Non-vested options granted | 226,500 | $ 0.29 |
| Vested options | (41,492 ) | $ 0.61 |
| Non-vested options forfeited | (91,991 ) | $ 0.48 |

| | | | |
|---|---|---|---|
| Non-vested options balance, ending December 31 | 168,308 | $ | 0.31 |

**MTI Micro Option Plans**

MTI Micro has two plans for issuing MTI Micro stock-based incentive awards; the MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan (2001 MTI Micro Plan) and the MTI MicroFuel Cells Inc. 2009 Stock Plan (2009 Micro Plan), (collectively, the MTI Micro Plans).

The 2001 MTI Micro Plan was approved by MTI Micro s stockholders in 2001 and provided an initial aggregate number of 1,766,000 shares of MTI Micro common stock to be awarded. The number of shares which may be awarded under the 2001 MTI Micro Plan and awards outstanding have been adjusted for a 2004 reverse stock split, and during 2005, 2006, and 2007, the total number of shares which may be awarded under the 2001 MTI Micro Plan were 3,416,667 shares. Under the 2001 MTI Micro Plan, the MTI Micro Board of Directors was authorized to award stock options to officers, directors, employees and consultants. During 2005, MTI Micro ceased making grants under the 2001 MTI Micro Plan and determined that it would make no new awards under this plan in the future.

The MTI Micro Board of Directors approved the 2009 Micro Plan on December 8, 2009. This plan provided an initial aggregate number of 38,000,000 shares of MTI Micro s common stock to be awarded. Under the 2009 Micro Plan, the MTI Micro Board of Directors is authorized to award stock options to directors, employees, consultants and advisors of MTI Micro.

There were no stock options granted in 2012 and 2011. Options generally vest 50% on the grant date and 50% ratably on a quarterly basis over the next three years. The fair value of stock options granted was estimated at the date of grant using a Black-Scholes Option Pricing Model. Share-based compensation expense recognized in the Consolidated Statement of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. The accounting standard requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company has assumed a forfeiture rate of 5% for its outstanding grants.

Presented below is a summary of compensation expense, which is included in the summary of the Company s compensation expense under all share-based awards above, for the MTI Micro Plans:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| Stock option compensation expense | $144 | $273 |
| Total stock-based compensation expense | $144 | $273 |

Total unrecognized compensation costs related to non-vested awards as of December 31, 2012 is $3 thousand.

Presented below is a summary of the MTI Micro Plans activity for the years ended December 31:

| | 2012 | 2011 |
|---|---|---|
| Shares under option, beginning | 25,124,220 | 33,050,720 |
| Granted | | |
| Exercised | | |
| Canceled/Forfeited | (23,594,180 ) | (7,926,500 ) |
| Shares under option, ending | 1,530,040 | 25,124,220 |
| Options exercisable | 1,418,960 | 20,040,419 |
| Remaining shares available for granting of options | 36,472,960 | 12,882,780 |

The weighted average exercise price for the MTI Micro Plans is as follows for each of the years ended December 31:

| | 2012 | 2011 |
|---|---|---|
| Shares under option, beginning | $ 0.07 | $ 0.07 |
| Granted | | |
| Exercised | | |
| Canceled/Forfeited | 0.07 | 0.07 |
| Shares under option, ending | 0.07 | 0.07 |

| | | |
|---|---|---|
| Options exercisable, ending | 0.07 | 0.07 |

The weighted average fair value of stock options granted is required to be based on a theoretical statistical model using the preceding Black-Scholes Option Pricing Model assumptions.

The following table summarizes information for options outstanding and exercisable for the MTI Micro Plans as of December 31, 2012:

| | Outstanding Options | | | Options Exercisable | |
|---|---|---|---|---|---|
| **Exercise Price Range** | **Number** | **Weighted Average Remaining Contractual Life** | **Weighted Average Exercise Price** | **Number** | **Weighted Average Exercise Price** |
| $0.07 - $2.54 | 1,527,040 | 7.23 | $ 0.07 | 1,415,960 | $ 0.07 |
| $2.55 - $3.79 | 1,000 | 0.25 | $ 2.55 | 1,000 | $ 2.55 |
| $3.80 - $4.65 | | | $ | | $ |
| $4.66 - $4.66 | 2,000 | 1.25 | $ 4.66 | 2,000 | $ 4.66 |
| | 1,530,040 | 7.23 | $ 0.07 | 1,418,960 | $ 0.07 |

**14. Cash Flows Supplemental Information**

Cash paid for interest on the line of credit was $1 thousand during the year ended December 31, 2012.

**15. Derivatives**

The Company had no outstanding derivative financial instruments as of December 31, 2012 and 2011.

*Warrant Derivative to Purchase MTI Common Stock:* The 378,472 warrants issued during the Company s December 2006 capital raise were legally freestanding, detachable and transferable by the holders. The features of the warrants

allowed both straight cash exercises as well as cashless exercises. Due primarily to a stipulation in the warrant agreement which allowed a potential cash settlement with the holders if the Company was acquired by, or merged with a private company, these warrants were classified as an asset/liability derivative in accordance with the accounting guidance. The estimated fair value of these warrants at the date issued was $18.16 per share, using a Black-Scholes Option Pricing Model and assumptions similar to those used for valuing the Company s employee share-based compensation. The warrants became exercisable on June 20, 2007.

The fair value of the derivative was recorded in the Derivative liability line on the consolidated financial statements and was valued quarterly using the Black-Scholes Option Pricing Model until their expiration on December 19, 2011. The Company recognized changes in fair value in its Consolidated Statements of Operations in the line titled Gain (loss) on derivatives.

**16. Commitments and Contingencies**

**Contingencies:**

***Legal***

We are subject to legal proceedings, claims and liabilities which arise in the ordinary course of business. We accrue for losses associated with legal claims when such losses are probable and can be reasonably estimated. These accruals are adjusted as additional information becomes available or circumstances change. Legal fees are charged to expense as they are incurred.

In January 2013, an action has been 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 and MTI Micro are named party defendants to this action by virtue of their 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. Accordingly, while there continues to be on-going discussions between the parties, we believe that it is too early to determine (i) whether there is likely exposure to an adverse outcome and (ii) whether or not the probability of an adverse outcome is more than remote.

We do not believe there are any such additional proceedings presently pending which could have a material adverse effect on our financial condition.

**Commitments:**

***Leases***

The Company and its subsidiary lease certain manufacturing, laboratory and office facilities. The leases generally provide for the Company to pay either an increase over a base year level for taxes, maintenance, insurance and other costs of the leased properties or the Company s allocated share of insurance, taxes, maintenance and other costs of leased properties. The leases contain renewal provisions.

Future minimum rental payments required under non-cancelable operating leases (with initial or remaining lease terms in excess of one year) as of December 31, 2012 are $282 thousand in 2013 and $263 thousand in 2014. Rent expense under all leases was $323 thousand and $307 thousand for 2012 and 2011, respectively. Rent expense was reduced during the year ended December 31, 2011 as a result of the Supplemental Lease Extension and Modification Agreement dated September 29, 2011 between Kingfisher, LLC and MTI Micro.

***Licenses***

Under a 2002 NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may be reduced to reflect any New York State jobs created by MTI Micro. As of December 31, 2012 and 2011, there are no amounts accrued in the consolidated balance sheets related to this royalty provision.

Under the 2010 NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. The obligation commences on the first date of the first sale of these products and is in place for fifteen years. Total royalties are subject to a cap equal to three times the total contract funds paid by NYSERDA to MTI Micro. However, if the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5% and total royalties are subject to a cap equal to one times the total contract funds paid by NYSERDA to MTI Micro. As of December 31, 2012 and 2011, there are no amounts accrued in the consolidated balance sheets related to this royalty provision.

***Employment Agreement***

The Company has an employment agreement with one employee that provides certain payments upon termination of employment under certain circumstances, as defined in the applicable agreements. As of December 31, 2012, the Company s potential minimum obligation to this employee was approximately $59 thousand.

***Royalty Commitment***

On January 28, 2010, MTI Instruments entered into an Asset Purchase and Sale Agreement with Ernest F. Fullam, Inc., Peter Fullam and Diane Fullam to acquire the tensile stage line of products from Ernest F. Fullam, Inc, a pioneering microscopy accessories company from Clifton Park, NY. MTI Instruments purchased machinery, inventory and the rights to use the Fullam/MTI Instruments product name. Additionally, commencing with the calendar quarter ending March 31, 2010 and ending at the close of the calendar quarter ending December 31, 2012, MTI Instruments will pay Ernest F. Fullam, Inc. a royalty equal to 5% of the Gross Sales achieved on specific Fullam products. Royalty expense related to this agreement was $20 thousand and $10 thousand for the years ended December 31, 2012 and 2011, respectively. There will be no further royalties under this agreement after December 31, 2012.

**17. Related Party Transactions**

***Equity Investments for MTI Micro***

On January 11, 2010, MTI Micro entered into the Purchase Agreement with Counter Point. Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb, a member of the Board of Directors of the Company and MTI Micro, and a current stockholder of MTI Micro. Pursuant to the Purchase Agreement, MTI Micro issued and sold to Counter Point 28,571,429 shares of common stock, par value $0.01 per share (the MTI Micro Common Stock), at a purchase price per share of $0.07, over a period of twelve months, and warrants (MTI Micro Warrants) to purchase

shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under the Purchase Agreement at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing). Nine Closings occurred through December 31, 2010, with MTI Micro raising $1.9 million from the sale of 26,952,386 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 5,390,477 shares of MTI Micro Common Stock to Counter Point. The final Closing occurred on January 5, 2011, with MTI Micro raising $113 thousand from the sale of 1,619,043 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 323,809 shares of MTI Micro Common Stock to Counter Point.

On February 9, 2011, Amendment No. 1 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 1, MTI Micro issued and sold to Counter Point 6,428,574 shares of MTI Micro Common Stock at a purchase price per share of $0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under Amendment No. 1 at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over four one-month closing periods (each, a Closing Period). Four Closings occurred through September 30, 2011, with MTI Micro raising $450 thousand from the sale of 6,428,574 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 1,285,715 shares of MTI Micro Common Stock to Counter Point.

On September 23, 2011, Amendment No. 2 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 2, MTI Micro issued and sold to Counter Point 1,200,000 shares of MTI Micro Common Stock at a purchase price per share of $0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under Amendment No. 2 at an exercise price of $0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over four one-month closing periods (each, a Closing Period). Four Closings occurred through December 31, 2011, with MTI Micro raising $84 thousand from the sale of 1,200,000 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 240,000 shares of MTI Micro Common Stock to Counter Point.

As of December 31, 2012, the Company owned an aggregate of approximately 47.6% of the outstanding shares of MTI Micro or 53.3% of the outstanding common stock and warrants issued of MTI Micro, and Dr. Robb and Counter Point owned approximately 45.2% and 5.1%, respectively of the outstanding shares of MTI Micro or 40.3% and 4.3%, respectively of the outstanding common stock and warrants issued of MTI Micro.

On December 9, 2011, MTI Instruments purchased laboratory and computer equipment from MTI Micro for a total of $84 thousand, which was funded by the Company.

***Consulting Services***

During 2012, the Company paid $80 thousand to Loudon Advisors for Kevin Lynch s services as the Acting Chief Executive Officer of the Company.

**18. Geographic and Segment Information**

The Company sells its products on a worldwide basis with its principal markets listed in the table below where information on product revenue and funded research and development revenue is summarized by geographic area for the Company as a whole for each of the years ended December 31:

| | 2012 | 2011 |
|---|---|---|
| **(dollars in thousands)** | | |
| **Product revenue:** | | |
| United States | $ 3,684 | $ 6,856 |
| Singapore, included in Asia for 2012 | | 1,066 |
| Asia | 1,578 | 1,411 |
| Australia & Oceania | 57 | 39 |
| Europe | 466 | 719 |
| Middle East | 23 | 35 |
| North America | 72 | 150 |
| South America | 20 | 4 |
| Total product revenue | $ 5,900 | $ 10,280 |
| | | |
| **Funded research and development revenue:** | | |
| United States | $ | $ 13 |
| Total funded research and development revenue | $ | $ 13 |
| Total revenue | $ 5,900 | $ 10,293 |

Revenues are attributed to regions based on the location of customers.

Long-lived assets of $129 thousand and $258 thousand at December 31, 2012 and 2011, respectively consist of property, plant and equipment all located within the United States of America.

The Company operates in two business segments**,** Test and Measurement Instrumentation and New Energy. The Test and Measurement Instrumentation segment designs, manufactures, markets and services high performance test and

measurement instruments and systems, wafer characterization tools for the semiconductor and solar industries, tensile stage systems for materials testing at academic and industrial settings, and computer-based balancing systems for aircraft engines. The New Energy segment is focused on commercializing direct methanol fuel cells. The Company s principal operations are located in North America.

The accounting policies of the Test and Measurement Instrumentation and New Energy segments are similar to those described in the summary of significant accounting policies (Note 2). The Company evaluates performance based on profit or loss from operations before income taxes. Inter-segment sales and expenses are not significant.

Total product revenues contributed of the Test and Measurement Instrumentation products segment and their percentage of total product revenues for each of the years ended December 31 are shown below:

| | **2012** | | **2011** | |
|---|---|---|---|---|
| | **Sales** | **%** | **Sales** | **%** |
| **(dollars in thousands)** | | | | |
| Balancing Systems | $ 2,508 | 42.5 % | $ 5,359 | 52.1 % |
| Precision Instruments | 2,813 | 47.7 | 3,983 | 38.8 |
| Semiconductor and Solar Metrology | 579 | 9.8 | 938 | 9.1 |
| Total | $ 5,900 | 100.0% | $ 10,280 | 100.0% |

In the Test and Measurement Instrumentation segment, the U.S. Air Force accounted for $1.3 million or 22.3% of total revenue in 2012 and $2.3 million or 22.4% of total product revenue in 2011. The largest commercial customer in 2012 was an Asian distributor, who accounted for $406 thousand or 6.9% of total product revenue in 2012. The largest commercial customer in 2011 was an Asian distributor, who accounted for $1.1 million or 10.7% of total product revenue in 2011.

In the New Energy segment, the DOE accounted for $6 thousand or 49.7% of total funded research and development revenue in 2011.

Summarized financial information concerning the Company s reportable segments is shown in the following tables. The Other column includes corporate related items and items such as income taxes or unusual items, which are not allocated to reportable segments. The Reconciling Items column includes non-controlling interests in a consolidated entity. In addition, segments non-cash items include any depreciation in reported profit or loss. The New Energy segment figures include the Company s direct micro fuel cell operations. As a result of the suspension of the MTI Micro operations in late 2011, the New Energy segment will continue to be included in these tables as long as they remain in our consolidated operations.

| (dollars in thousands) | Test and Measurement Instrumentation | New Energy | Other | Reconciling Items | C C T |
|---|---|---|---|---|---|
| Year Ended December 31, 2012 | | | | | |
| Product revenue | $ 5,900 | $ | $ | $ | $ 5 |
| Research and product development expenses (income) | 1,365 | (1) | | | 1 |
| Selling, general and administrative expenses | 1,908 | 160 | 1,745 | | 3 |
| Segment loss from operations before income taxes and non-controlling interest | (1,069) | (5) | (1,009) | | ( |
| Segment (loss) profit | (1,069) | (5) | (1,015) | 3 | ( |
| Total assets | 2,902 | 105 | 1,838 | | 4 |
| Capital expenditures | 17 | | | | 1 |
| Depreciation | 94 | 33 | 2 | | 1 |

| (dollars in thousands) | Test and Measurement Instrumentation | New Energy | Other | Reconciling Items | Condensed Consolidated Totals |
|---|---|---|---|---|---|
| Year Ended December 31, 2011 | | | | | |
| Product revenue | $ 10,280 | $ | $ | $ | $ 10,280 |
| Funded research and development revenue | | 13 | | | 13 |
| Research and product development expenses | 1,243 | 223 | | | 1,466 |
| Selling, general and administrative expenses | 2,306 | 993 | 1,695 | | 4,994 |
| Segment profit (loss) from operations before income taxes and non-controlling interest | 2,476 | (1,460) | (916) | | 100 |
| Segment profit (loss) | 2,476 | (1,462) | 634 | 738 | 2,386 |
| Total assets | 3,038 | 173 | 3,191 | | 6,402 |
| Capital expenditures | 170 | | 5 | | 175 |
| Depreciation | 90 | 210 | 7 | | 307 |

The following table presents the details of Other segment (loss) profit for each of the years ended December 31:

| (dollars in thousands) | 2012 | 2011 |
|---|---|---|
| Corporate and other (expenses) income: | | |
| Depreciation | $ (2) | $ (7) |
| Salaries and benefits | (899) | (984) |
| Gain on derivatives | | 73 |
| Income tax (expense) benefit | (6) | 1,550 |
| Other (expense) income, net | (108) | 2 |
| Total (expense) income | $ (1,015) | $ 634 |

**19. Line of Credit**

On September 20, 2011, MTI Instruments entered into a working capital line of credit with First Niagara Bank, N.A. Pursuant to the Demand Grid Note, 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 May 7, 2012. The line of credit is subject to a review date of June 30, 2013. Under the line of credit, MTI Instruments is required to hold a line balance of $0 for 30 consecutive days out during each consecutive year. As of December 31, 2012 and December 31, 2011, there were no amounts outstanding under the line of credit. Total interest expense was $1 thousand for the year ended December 31, 2012.

**20. Subsequent Events**

The Company has evaluated subsequent events and transactions through the date of this filing for potential recognition or disclosure in the consolidated financial statements and has noted the following:

In January 2013, an action has been 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 and MTI Micro are named party defendants to this action by virtue of their 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. Accordingly, while there continues to be on-going discussions between the parties, we believe that it is too early to determine (i) whether there is likely exposure to an adverse outcome and (ii) whether or not the probability of an adverse outcome is more than remote.

Peng K. Lim, the Company s former Chief Executive Officer ended his employment on September 10, 2012. Subsequently, the Company and Mr. Lim entered into an Agreement and Release (the Agreement) effective March 1, 2013. Pursuant to the Agreement, Mr. Lim resigned as Chief Executive Officer and from the Company s Board of Directors effective September 10, 2012. Mr. Lim resigned as a director to pursue a new business venture in the consumer electronics industry. The Company and Mr. Lim agreed to general releases from liability and customary restrictive covenants, and the Company agreed to pay Mr. Lim s attorneys fees of $30 thousand. Mr. Lim will not receive any other compensation.