

LITHIUM TECHNOLOGY CORP
Form 10KSB
April 14, 2004
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-KSB

(Mark One)

ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the fiscal year ended December 31, 2003

OR

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

For the transition period from _____ to _____

Commission File Number 1-10446

LITHIUM TECHNOLOGY CORPORATION

(Name of Small Business Issuer in Its Charter)

DELAWARE
(State or Other Jurisdiction of
Incorporation or Organization)

13-3411148
(I.R.S. Employer
Identification No.)

5115 CAMPUS DRIVE, PLYMOUTH MEETING, PENNSYLVANIA 19462

(Address of Principal Executive Offices) (Zip Code)

(610) 940-6090

(Issuer's Telephone Number, Including Area Code)

Securities registered under Section 12(b) of the Exchange Act: NONE.

Securities registered under Section 12(g) of the Exchange Act: COMMON STOCK, PAR VALUE, \$0.01

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

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB.

State issuer's revenues for its most recent fiscal year. \$229,000.

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was sold, or the average bid and asked prices of such common equity, as of a specified date within the past 60 days. Approximately \$6,615,781 as of April 8, 2004. The aggregate market value was based upon the mean between the closing bid and asked price for the common stock as quoted by the NASD OTC Electronic Bulletin Board \$2.035.

(ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

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Check whether the issuer has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Exchange Act after the distribution of securities under a plan confirmed by a court. Yes No

(APPLICABLE ONLY TO CORPORATE REGISTRANTS)

State the number of shares outstanding of each of the issuer's classes of common equity, as of the latest practicable date: As of April 8, 2004, 11,989,130 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

If the following documents are incorporated by reference, briefly describe them and identify the part of the Form 10-KSB (e.g., Part I, Part II, etc.) into which the document is incorporated: (1) any annual report to security-holders; (2) any proxy or information statement; and (3) any prospectus filed pursuant to Rule 424(b) or (c) of the Securities Act of 1933 (Securities Act). The listed documents should be clearly described for identification purposes (e.g., annual report to security holders for fiscal year ended December 24, 1990). None.

Transitional Small Business Disclosure Format (check one): Yes No

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CURRENCY AND EXCHANGE RATES

All monetary amounts contained in this Report are, unless otherwise indicated, expressed in U.S. Dollars. On April 9, 2004, the noon buying rate for Euros as reported by the Federal Reserve Bank of New York was 1.2102 to \$1.00 U.S.

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PART I

ITEM 1. DESCRIPTION OF BUSINESS

OVERVIEW AND RECENT DEVELOPMENTS

We are engaged in the development and pilot-line production of large format lithium-ion rechargeable batteries to be used as a new power source in emerging applications in the national security, transportation and stationary power markets. With higher energy density, lighter weight, smaller volume, longer operational life and greater cost effectiveness, we believe that lithium batteries are especially compatible with rapidly emerging developments in these markets. We further believe that our unique large format flat and cylindrical battery designs provide a special advantage for national security, transportation and stationary power applications.

We combined the operations of Lithium Technology Corporation (LTC) with GAIA Akkumulatorenwerke GmbH (GAIA), a private lithium polymer battery company headquartered in Nordhausen, Germany, in a share exchange in 2002 (the Share Exchange). The LTC-GAIA combination has resulted in a merger of our lithium-ion and lithium polymer technologies, product development, manufacturing processes, know-how, market positioning and sales efforts.

In the Share Exchange we acquired a 100% interest in GAIA through our acquisition of 100% of the outstanding shares of GAIA Holding B.V., a Netherlands holding company (GAIA Holding) from Arch Hill Ventures N.V., a private company limited by shares incorporated under the laws of the Netherlands (Arch Hill Ventures) in exchange for our issuance to Arch Hill Ventures of shares of LTC Series A Preferred Stock which were converted into 5,567,027 shares of LTC common stock on February 25, 2004.

Arch Hill Capital N.V., a private company limited by shares incorporated under the laws of the Netherlands (Arch Hill Capital), controls Arch Hill Ventures. Subsequent to the Share Exchange, Arch Hill Capital controls LTC. As a result, the Share Exchange acquisition is accounted for as a reverse acquisition, whereby for financial reporting purposes, GAIA Holding is considered the acquiring company. Hence, the historical financial statements of GAIA Holding became the historical financial statements of the Company and include the results of operations of LTC only from the acquisition date. LTC, GAIA, GAIA Holding and all of the subsidiaries of LTC and GAIA Holding are collectively referred to herein as the Company , we or us .

Our corporate headquarters are located at Plymouth Meeting, Pennsylvania. We have two operating locations GAIA USA in Plymouth Meeting, Pennsylvania and GAIA Europe in Nordhausen, Germany. Our strategic business plan provides for a unified approach by our two locations to overall business strategy; technology research and development; product development; procurement; production; market and competitive analysis; customer contact plans; marketing; public relations/investor relations; sales; distribution; securing future joint venture relationships for manufacturing and distribution; future resource needs; and financial matters.

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We believe that we have the capability to design, develop, build and sell large format lithium-based rechargeable batteries for a variety of advanced applications. The GAIA USA unit has a range of potential customer contacts in U.S. commercial and government circles, while the GAIA Europe unit has the ability to attract and capture German and other European customers. We have a small revenue stream from certain government research and development contracts and prototype sales. We have expended a combined total of more than \$50 million in advancing our battery technologies. To date, we have delivered a limited number of prototypes.

We believe that the advantages of our battery technology over other batteries include:

Higher power and/or energy density

Rapid recharging

Longer cycle life

Lower cost manufacturing process

More flexible battery designs

Broader range of operating temperatures, including very low temperatures

In the past, we have worked closely with selected portable electronics Original Equipment Manufacturers (OEMs) exploring various notebook computer, personal digital assistant and wireless handset applications. Over the past four years, we have refocused our unique extrusion-based manufacturing process, cell technology, large battery assembly expertise, and market activities to concentrate on large-format, high rate battery applications. Our commercialization efforts are focused on applying our lithium-ion rechargeable batteries in the national security, transportation and stationary power markets.

Our accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the continuation of operations, realization of assets and liquidation of liabilities in the ordinary course of business. Since inception, we have incurred substantial operating losses and we expect to incur additional operating losses over the next several years. As of December 31, 2003, we had an accumulated deficit of approximately \$37,600,000.

Our operations have been financed primarily through the use of proceeds from equity financings, loans, including loans from Arch Hill Capital, Arch Hill Ventures and other related parties, loans from silent partners and bank borrowings secured by assets.

On January 22, 2004, we sold \$2,000,000 of our 10% Convertible Debentures Due 2006 with attached warrants to purchase up to 1,000,000 shares of our common stock in a private placement to an investment group. Continuation of our operations in 2004 is dependent upon obtaining further financing. These conditions raise doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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On April 13, 2004, pursuant to a Debt Exchange Agreement between LTC, GAIA Holding, GAIA, Arch Hill Capital and Arch Hill Ventures, we exchanged certain debt owed to Arch Hill Capital and Arch Hill Ventures for our equity securities. \$1,587,375 of bridge notes held by Arch Hill Capital and issued in 2002 were exchanged for \$1,587,375 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 793,688 shares of our common stock exercisable at \$2.00 per share. \$1,412,625 of bridge notes held by Arch Hill Capital and issued in 2003 were exchanged for \$1,412,625 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 706,312 shares of our common stock exercisable at \$2.00 per share. \$5,459,502 of bridge notes issued in 2003 and \$918,159 of bridge notes issued from January 1, 2004 through April 13, 2004 and \$323,284 of interest on the bridge notes issued in 2003 and 2004 were exchanged for 6,069,697 shares of our common stock and warrants to purchase up to 10,500,000 shares of our common stock exercisable at \$2.40 per share. \$23,185,604 of debt owed to Arch Hill Ventures was exchanged for 21,001,453 shares of our common stock.

Our operating plan seeks to minimize our capital requirements, but commercialization of our battery technology will require additional capital. We expect that technology development and operating and production expenses will increase significantly as we continue to advance our battery technology and develop products for commercial applications.

We are currently seeking sources of additional financing, in the form of equity financing, to provide the additional capital in order to fund our current operations, scale-up our production capabilities to take advantage of near-term market opportunities, expand our scope of operations and pursue our business strategy. We believe that if we raise approximately \$10,000,000 to \$12,000,000 in a debt or equity financing, we would have sufficient funds to meet our needs for at least twelve months. However, no assurance can be given that we will be successful in completing any financing. If we are unsuccessful in completing any financing, we will not be able to fund our current expenses or pursue our business strategy.

CORPORATE INFORMATION

LTC is a Delaware corporation that was incorporated on December 28, 1995. LTC's predecessor - Lithium Technology Corporation (a Nevada corporation previously named Hope Technologies, Inc.) - merged with and into LTC in a reincorporation merger that became effective on February 8, 1996. The executive office of LTC is located at 5115 Campus Drive, Plymouth Meeting, Pennsylvania 19462, telephone number: (610) 940-6090.

LTC holds 100% of the outstanding shares of GAIA Holding, a Netherlands holding company. GAIA Holding is a private limited liability company incorporated under the laws of the Netherlands on February 2, 1990, with a statutory seat at the Hague (the Netherlands) and office address at Parkweg 2, 2585 JJ, the Hague, the Netherlands.

GAIA Holding is the legal and beneficial owner of all of the issued and outstanding shares of Lithiontech B.V., a Netherlands company limited by shares that was formed on February 8, 1999 (Lithiontech). Lithiontech has the legal and beneficial ownership of all the issued and outstanding shares of DILO Trading AG, a Switzerland company limited by shares that was formed on September 11, 1975 (DILO Trading) and Lithiontech Licensing B.V., a Netherlands company limited by shares that was formed on February 8, 1999 (Lithiontech Licensing). DILO Trading holds patents for which the intellectual property was developed by DILO Trading in collaboration with GAIA. GAIA holds a license for all these patents.

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GAIA Holding is the beneficial owner of all of the issued and outstanding shares of GAIA. Legal ownership of the outstanding shares of GAIA are held pursuant to certain Dutch and German trust agreements by two Netherlands entities (the Nominal Stockholders) for the risk and account of GAIA Holding. Based on the Dutch and the German trust agreements, the Nominal Stockholders are obliged to transfer the legal ownership of the shares in GAIA without any further payments to GAIA Holding to a third party designated by GAIA Holding on the demand of GAIA Holding. Pursuant to the trust agreements, GAIA Holding has the right to vote the shares of GAIA held by the Nominal Stockholders.

LTC and GAIA Holding, Arch Hill Ventures and the Nominal Stockholders are parties to an agreement (the Share Transfer Agreement) which provides that without LTC 's prior written consent, GAIA Holding may not directly or indirectly transfer or instruct any party to transfer the legal ownership of the shares of GAIA held by the Nominal Stockholders to any party other than to GAIA Holding and that upon LTC 's written direction, GAIA Holding will instruct the Nominal Stockholders to transfer the legal ownership of the shares of GAIA held by the Nominal Stockholders to GAIA Holding for no payment. The Share Transfer Agreement further provides that at such time as the parties determine that there would no longer be any possible adverse tax effect as a result of the transfer of the GAIA shares to GAIA Holding, then the legal ownership of the GAIA shares held by the Nominal Stockholders shall be transferred to GAIA Holding without any payment.

GAIA is a private limited liability company organized under German law on April 4, 1996. GAIA is located at Montaniastrasse 17, D-99734 Nordhausen/Thuringia, Germany, telephone number: 011 49 3631 616 670.

LTC holds 100% of the outstanding shares of Lithion Corporation, a Pennsylvania corporation that was incorporated on June 3, 1988.

We effected a reverse stock split on a one-for-twenty share basis on July 28, 2003. All share amounts and prices stated herein give retroactive effect to such reverse stock split.

Information contained on the LTC web site or GAIA web site (www.lithiumtech.com and www.gaia-akku.com) does not constitute part of this Report.

DEVELOPMENT AND COMMERCIALIZATION PLAN

GENERAL

The combination of the LTC and GAIA operations in 2002 created a unique advanced battery company. We believe that the combination of LTC 's novel and proprietary electro-chemistry and GAIA 's patented lower cost extrusion-based manufacturing process gives us a competitive edge in technology and products.

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With our large-format rechargeable lithium-ion and lithium polymer batteries, we are addressing the national security, transportation, and stationary power markets. We believe that our battery technology and products are superior to other battery technologies and products and that we have only limited competition in North America and Europe for large-format rechargeable lithium batteries. Thus, we believe we are well-positioned to capitalize upon business opportunities in these target markets. We are scaling up a number of products under the GAIA brand name aimed at specific market requirements, and there has been a growing demand for our batteries.

Compared to other battery technologies and products, rechargeable lithium batteries are one-third of the weight and one-half the volume of lead acid batteries and one-half the weight and two-thirds the volume of nickel metal hydride batteries. Moreover, we believe that our technology offers a wide range of product and process advantages when compared to the technology of other rechargeable lithium-ion battery manufacturers.

On the product side, our proprietary large-format GAIA batteries are easily customizable both in cylindrical or flat form factors to suit various size, shape and performance demands. The modularity of common building block cells allows for maximum design flexibility in building batteries to meet OEM customer requirements. Superior product performance is achieved through high power density electro-chemistries that enable high rate discharging and fast charging (15-30 minutes), as well as a very broad range of operating temperatures (-40⁰C to +55⁰C).

On the production side, equipment at the GAIA Europe plant at Nordhausen embodies our patented low-cost, environmentally friendly extrusion process. This simplified and highly effective extrusion technique provides a significant improvement in volume manufacturing operations when compared to the processes used by other lithium-ion battery manufacturers around the world.

Our near-term strategy is to focus on the military market to ramp up sales rapidly. The military market is very large, generally less price sensitive than other markets and has an immediate demand for our technology and products. We have established business contacts with appropriate government and military organizations as well as government contractors executing military contracts requiring advanced power sources.

We believe that the military market will provide the bulk of our near term revenues, however, over the longer term, we expect that transportation applications (Hybrid Electric Vehicles (HEV) and other custom batteries for autos, trucks, buses, etc.) and stationary or back-up power applications (telephone companies, corporate data centers, cell sites, etc.) will provide market opportunities for our technology and products going forward. For these market opportunities, we will seek to enter into joint venture arrangements with established major battery companies to capitalize on our technology and products for these target market segments.

TARGET MARKETS

We plan to leverage our expertise in large format cells and large battery assemblies to commercialize advanced lithium batteries as a new power source in the national security systems, transportation and stationary power markets with a particular focus on the U.S. and European geographic market segments.

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National Security applications demand high power output, broad operating temperatures, low weight, small size, rapid charging and thousands of recharge cycles. Performance is more important than price in the National Security market and the market need is growing quickly. There are immediate retrofit opportunities for military field batteries currently using rechargeable D and CC-cells.

Transportation applications reflect a growing need for long-life, durable high power storage for HEV and 42-volt systems and fuel cells. While this is a small market today, we believe it has mass market potential for the future. Military and heavy duty vehicle OEMs have been early adopters of new technology and are among the first customers for large-format lithium-ion batteries.

Stationary Power applications require high-reliability power for telecommunications, computers and other mission critical applications. We believe this presents a very large potential market. Growing dependence on electrical power worldwide drives the demand for high quality and readily available back-up power.

NATIONAL SECURITY MARKET

The US and its allies are changing the military landscape. The trend is from infantry divisions to many small, rapidly deployed units using extensive power-intensive electronics. There are numerous requirements for advanced power sources in a variety of applications:

Land Warrior (night goggles, communications equipment, Global Positioning Satellites (GPS), computers, handheld spotlights, etc.)

Silent Watch (stealth operations)

Manned combat support vehicles land-based and underwater

Unmanned reconnaissance and combat support systems airborne, ground, underwater

Satellite surveillance and communications systems

Remotely controlled surveillance, detection and demolition robots

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We believe that:

Large-format Lithium-ion batteries offer key advantages over competing technologies for various military applications

There are a variety existing applications for our battery products, particularly retrofitting into existing cavities/packs:

US Military and NATO Allies seek to replace primary batteries with rechargeable batteries US Army Communications & Electronics Command (CECOM) initiative

US Military seeks rapid recharge capability for field batteries (CECOM initiative)

US Military seeks lighter weight automotive batteries for military vehicles to reduce air transport weight

There are developing applications and trends which demonstrate a growing need for advanced batteries in a number of areas:

US Department of Defense Future Combat Systems Program is defining numerous unmanned vehicle applications that will require advanced rechargeable batteries

US Army Tank & Armaments Command (TACOM) is developing HEV platforms to reduce fuel consumption (supply line problem)

TACOM is developing electric vehicle (EV) platforms to reduce emissions on military bases

Unmanned Aerial Vehicles (UAVs) need advanced batteries for surveillance and ordinance delivery

Military Robotics need advanced batteries for surveillance

Navy submarines and All Electric Ship Applications need advanced batteries

TRANSPORTATION MARKET

A fundamental shift is underway to add increasing quantities of electronics to conventional vehicles. The 12-volt standard system lacks the necessary power, and automakers are examining various higher voltage alternatives. There is no clear industry trend at this time, but we believe we are well positioned to address the developing market for higher voltage systems. Recent developments are as follows:

A 42-volt lead acid system was introduced in Japan in 2002

We delivered 42-volt prototypes to OEMs in the US and Europe

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Hybrid Electric Vehicles are gaining increasing market acceptance. Existing nickel-metal hydride batteries are heavy, expensive, and intolerant of temperature variations. Present niche OEM markets include heavy-duty vehicles, buses, trucks and military vehicles as early adopters of new technology. We believe our GAIA batteries can meet the required specifications.

The market today for All-Electric Vehicles (EV s) is limited to small special purpose vehicles. We believe that our GAIA batteries are well-suited for these applications.

We believe that:

Large-format lithium-ion batteries offer key advantages over competing technologies for various transportation applications

There are existing niche market applications for our products, including:

Opportunities for 12-V Starting-Lighting-Ignition (SLI) and Auxiliary Batteries

HEV and EV experimental trucks and buses

Racing cars and motorcycles

Marine applications

Developing applications and trends will increase the demand for advanced battery systems for the following in the future:

New higher voltage power net systems in automobiles

Heavy duty HEVs for buses, taxis and truck fleets (shorter development time and ideal proving platform for batteries)

Mid-size pickup trucks, electric bikes (for military or law enforcement usage), highway capable Evs

HEVs for automotive OEMs

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Over the longer term, lithium-ion batteries will work in tandem with super capacitors and fuel cells

Our GAIA batteries are well-suited for the developing transportation market applications

STATIONARY POWER MARKET

A growing dependence on digital devices for mission critical applications drives the demand for back-up power and uninterrupted high quality power. This is a very cost-sensitive market and the life cycle value of lithium ion batteries over lead acid batteries is a key market advantage.

Uninterruptible Power Systems (UPS) are public utility back-up systems that do not operate continuously or feed back into the power grid. They generally consist of batteries or banks of batteries that provide power while the grid supply is inoperative and until it is restored. The demand for commercial and industrial UPS applications has tracked the increasing dependence of business on computerized systems. UPS users are seeking more reliable, robust, longer-life and lower maintenance batteries. Communications and data processing infrastructure systems are a specific subset of UPS that need uninterruptible quality power for assured continuity of operations. Applications include telephone landline Points and Presence (POPs), cell sites, CATV, Internet service sites, data centers, and remote locations.

Distributed power systems generally consist of small, continuously operating, self-contained power generating units. These systems often employ high power batteries or capacitors for power control and conditioning functions, and a low power battery for energy storage. These units are privately owned by companies other than public utility companies such as TelCos, industrial firms, hospitals, universities, broadcast networks and data centers and government installations. These power users have determined that they cannot always rely on the power grid to meet their power reliability and quality needs. The energy storage component of distributed power systems currently consists of older battery technology, and there is a demand for advanced, low maintenance, long-life high performance batteries.

In the stationary power market we believe that GAIA products offer higher power and longer life at a lower life cycle cost than current solutions, particularly lead acid batteries. Specifically, we believe that GAIA products offer broader operating temperatures, increased flexibility and lower maintenance and operating costs to telecommunications, cellular, cable television, Internet, and remote users.

We believe that:

Large-format lithium-ion batteries offer key advantages over competing technologies

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There are existing applications where advanced batteries are needed:

Telecom: lower cost of cooling/heating the facilities; less maintenance; remote monitoring.

Solar: less maintenance, longer battery life.

UPS: space/weight savings, higher reliability, less maintenance, longer life and lower life cycle cost.

The developing applications and trends reflect increasing market opportunities for advanced batteries in the future:

New wireless network installations with lower cost infrastructure

Heightened awareness of need for backup systems following 2003 blackout in Northeastern US

Wind and solar power

PATHS TO MARKETS

Our intended paths to the various markets are to:

Obtain funded development contracts

Sell directly to military and niche customers in transportation and stationary power markets

Sell to OEMs in the national security, transportation and stationary power markets

Design to customer specifications

Prototype and advanced product development (customer funds development and pilot production)

Produce small-volume requirements in-house

Establish relationships with major battery manufacturers for large-scale production to meet mass market requirements, including technology licensing, joint ventures and partnerships

Sell products manufactured by joint ventures, partnerships and technology licensees

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MILESTONES

In 2002, we delivered a 42-volt automotive battery prototype to BMW under the auspices of the Astor Consortium of seven European auto manufacturers, and in January 2004 delivered a Hybrid Electric Vehicle (HEV) module to the Astor Program. Over the past twelve months, we have shipped our large-format GAIA batteries and cells to a variety of customers under firm purchase orders, including:

A defense systems integrator for a classified UK military application;

An electric bike OEM for a classified military application;

A defense contractor for an Unmanned Aerial Vehicle (UAV) application;

A nuclear power industry OEM for a portable radiation detector;

A phase II feasibility study from a leading submarine builder for a NATO Navy submarine application;

High-end European car manufacturers, including one of the world's leading sports car manufacturers;

A heavy-duty vehicle OEM;

The US Advanced Battery Consortium (The U.S. Big 3 Automakers + Department of Energy); and

Penn State University for an HEV application in a future truck competition entry.

TECHNOLOGY OVERVIEW

Our rechargeable lithium battery technology base dates back to 1983. Since 1983, LTC has evaluated a wide array of lithium-ion cell designs covering a broad spectrum of applications. These evaluations have involved coating a wide variety of electrode materials, including those for lithium-ion liquid, lithium metal and lithium polymer chemistries, onto a variety of substrates, including solid foils, expanded metal grids and fiber webs. We have engaged in high-yield pilot line operations since 1996. Over the last seven years, certain manufacturing steps were adapted to our pilot line to accommodate these new techniques. These factors have allowed us the flexibility to match the battery design to the application. In recent years, we have extended our experience to the assembly of full batteries complete with battery management systems. In 1997, we began focusing on unique large footprint flat cells and large battery assemblies comprised of stacked cells and control circuitry.

GAIA began as a venture business based upon proprietary, novel manufacturing technology in 1996. GAIA has developed technology to continuously extrude lithium-ion polymer electrodes and the separator that contains the final electrolyte solution. This simplifies the manufacturing process by eliminating process steps such as drying coatings, extraction of plasticizer, and cell

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activation with electrolyte solution. The result is a liquid-free process that operates at lower cost and with minimal emission of organic solvents. GAIA Europe unit's plant is a modern facility with state-of-the-art automated equipment for extrusion/coating, lamination, winding, packaging and formation/testing.

In 2000, after four years of development, the GAIA team of experienced industrial managers, battery development engineers and production engineers, succeeded in advancing our GAIA Europe unit's lithium polymer technology to the pilot production stage. By the end of 2001, the GAIA Europe unit had developed two new types of cylindrical cells which will be used in HEV batteries and in national security applications.

Our lithium-ion and lithium polymer batteries encompass both thin, flat prismatic cells and large wound cylindrical and prismatic cells. Our proprietary technology includes critical composition, processing, and packaging aspects of the battery. We also have experience in cell and battery manufacturing processes. Our coating, lamination and extrusion know-how enables us to achieve uniformity and consistency through a range of application techniques. We have the ability to handle large footprint cells and assemble cells into large battery stacks. In addition, we are familiar with many coating, lamination, extrusion, assembly, packaging, and formation equipment suites which can be scaled up for large volume operations.

Currently our electrodes are extruded and laminated on to foil current collectors. Work is ongoing to streamline the operation to an extrusion coating directly on to foil, while the separator will remain extruded. The resulting components are then wound and/or laminated together into thin, lightweight, flexible form factor polymer cells and packaged in either flat or cylindrical cell geometries. Batteries for the consumer, transportation, and industrial markets require different electro-chemical systems that we believe can be easily accommodated by our extrusion process. We also believe that our extrusion process can be applied to producing supercapacitors and electrodes for fuel cells.

The technological advantages of lithium-ion over other chemistries are as follows:

Versus lead acid:

Lithium-ion is 1/3 the weight and 1/2 the volume

Better suited to pulse power generated by regenerative braking (HEVs and EVs)

Wider range of temperature tolerance

No deterioration of capacity when kept at a low state of charge

Versus nickel-metal hydride:

Lithium-ion is 1/2 the weight and 2/3 the volume

Wider range of temperature tolerance

Better suited to pulse power generated by regenerative braking (HEVs and EVs)

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Less heat generation

Less complex batteries and therefore less prone to failure (lithium-ion operates at 3.6V versus 1.2V for NiMH and therefore requires one-third the number of cells in order to attain the same voltage)

We believe that our GAIA cells and batteries have the following differentiators:

Large and modular cells for design flexibility

Common building blocks (cylindrical, prismatic cells and flexible flat cells) allow for various sizes, shapes and performance demands

Very low and high operating temperatures from -40°C to +55°C

Proprietary chemistry and technical design for superior performance, safety and long operating life

Low internal resistance allows for high power output and rapid charging with limited heat generation

Chemistry and design meets stringent safety demands

Many thousands of charge/discharge cycles (between 30 and 80 % depth of discharge)

Proprietary manufacturing process

Low cost extrusion and assembly allows scalability and opportunity for high gross margins

Environmentally friendly (no solvents)

Our GAIA Europe plant employs a proprietary extrusion-based process (versus solvent-based processes used by competitors) in the manufacturing of our rechargeable large-format lithium-ion batteries. This environmentally-friendly proprietary process reduces the costs of raw materials, labor, energy and capital in comparison to solvent-based production processes.

COMPETITION

Competition in the battery industry is, and is expected to remain, intense. In our target markets of transportation and stationary power systems, the principal competitive technologies are currently lead acid and nickel metal hydride. We believe that lithium-ion and lithium polymer batteries will enter this segment of the rechargeable battery market in the near future. We believe that lithium-ion and lithium polymer batteries will compete in this market based on superior performance and life cycle, particularly in the HEV market which requires constant deep cycle

charge and discharge, high rate regenerative braking and operation over a wide range of temperatures.

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The rechargeable battery industry consists of major domestic and international companies, many of which have financial, technical, marketing, sales, manufacturing, distribution and other resources substantially greater than ours. We compete against companies producing lithium batteries as well as other primary and rechargeable battery technologies. Our primary competitors in the national security market are: Saft, Eagle-Pitcher, The Yardney Technical Products, Inc. and Ultralife Batteries, Inc. Our primary competitors in the Transportation Market are: Johnson Controls, Inc., Exide Technologies, Saft, Panasonic EV Energy Co., Ltd., The Sanyo Group of Companies, Delphi Automotive Systems, and Trojan Battery Company. Our primary competitors in the stationary power market are EnerSys, Inc., C&D Technologies, Inc. and Avestor.

DEVELOPMENT CONTRACTS AND RESEARCH GRANTS

We had revenue from development contracts and prototype sales of \$229,000 and \$121,000 for the years ended December 31, 2003 and 2002, respectively. In addition, we received a total of \$885,000 and \$1,112,000 from foreign government subsidies (research grants) for the years ended December 31, 2003 and 2002, respectively. As of April 13, 2004, the GAIA Europe unit had two technology research grants with European and German government entities. The end-dates for these grants range from March 2004 to May 2004 (with a possible extension), and the total amount due under these grants in the 2004 fiscal year is expected to be approximately \$430,000.

INTELLECTUAL PROPERTY

PATENTS AND PROPRIETARY INFORMATION

As of April 13, 2004, 26 patents have been issued to LTC and LTC has four patent applications pending in the U.S. LTC also pursues foreign patent protection in countries of interest. LTC has been granted three foreign patents and has seven patent applications pending in foreign countries. DILO Trading holds patents for which the intellectual property was developed by DILO Trading in collaboration with GAIA. DILO Trading has granted GAIA the right to use these patents. As of April 13, 2004, five patents have been issued to DILO Trading and DILO Trading has 30 patent applications pending in Europe. Although we believe that the pending patent applications will be granted, no assurance to this effect can be given.

We also have proprietary knowledge that is in the patent disclosure stage or that we protect as trade secrets. Our early patents relate to materials and construction for lightweight solid-state rechargeable batteries. Our later patents and applications relate to improvements to the technology contained in the first patents or to other key aspects of rechargeable lithium battery technology. The earliest any of our patents expires is 2005. There is no current or, to our knowledge, threatened litigation regarding our patents.

We also rely on unpatented proprietary information to maintain and develop our commercial position. Although we seek to protect our proprietary information, there can be no assurance that others will not either develop independently the same or similar information or obtain access to our proprietary information. In addition, there can be no assurance that we would prevail if we were to challenge intellectual property rights claimed by third parties that we believed infringed upon our rights or that third parties will not successfully assert infringement claims against us in the future.

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Our employees are required to enter into agreements providing for confidentiality and assignment of rights to inventions made by them while employed by us. There can be no assurance that these agreements will be enforceable by us.

LICENSING RELATIONSHIPS AND RELATED MATTERS

We have entered into a cross-license with Valence Technology Corporation with respect to rights relating to U.S. Patent No. 4,997,732 held by Valence (Battery in a Vacuum Sealed Enveloping Material and Process for Making the Same) and rights relating to U.S. Patent No. 5,057,385 held by us (Battery Packaging Construction) and granted certain license/distributorship option rights pursuant to a Japanese consortium technology development agreement entered into in 1996.

In connection with terminating LTC's previously proposed merger with Ilion Technology Corporation (Ilion), we entered into cross licensing agreements with Ilion effective January 8, 2002, whereby worldwide, non-exclusive, royalty free, perpetual licenses were granted by each to the other with respect to certain specified technology. The license from us to Ilion covers all product designs, processing techniques and knowledge known to those skilled in the art whether or not patented or patentable which we owned or possessed on December 31, 2001 and have communicated to Ilion or was developed by us pursuant to the LTC-Ilion merger agreement, solely as the foregoing relates to the materials, design and architecture of lithium-ion/lithium-ion polymer batteries and excluding any of the foregoing as it relates to lithium metal polymer batteries and excluding any improvements to the technology after December 31, 2001. The license from Ilion to us covers all product designs, processing techniques and knowledge known to those skilled in the art whether or not patented or patentable which Ilion owned or possessed on December 31, 2001 and has communicated to us or was developed by us pursuant to the LTC-Ilion merger agreement, solely as the foregoing relates to the materials, design and architecture of lithium-ion/lithium-ion polymer batteries and excluding any improvements to the technology after December 31, 2001.

As part of the licensing arrangement with Ilion, we agreed not to duplicate Ilion's High Power Device product or design or any other aspect of the high power device system that can be protected by patent or may not be determined by outside analysis and agreed to not enter the power conditioning reliability market until the earlier of two years after Proteus Power LLC (or its successor) enters commercial production and December 31, 2004. We do not believe that Ilion-Proteus has yet entered into commercial production of this product. Subject to the foregoing, we have the right to use known conventional construction designs which exist in the commercial marketplace outside of Ilion-Proteus.

In connection with the Share Exchange, LTC and GAIA entered into a Strategic Alliance Agreement (the Strategic Alliance Agreement). The Strategic Alliance Agreement covers technology sharing and licensing, among other matters. The Strategic Alliance Agreement provides that as determined in accordance with the rules of inventorship, LTC will have sole ownership of all inventions, patents, know-how, trade secrets, technical information, data, manufacturing processes, designs, ideas, and the like (Technology) invented, discovered or developed solely by our GAIA USA unit or its employees or agents prior to and during the term of the Strategic Alliance Agreement (LTC Technology) and GAIA will have sole ownership of

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all Technology invented, discovered or developed solely by our GAIA Europe unit, or its employees or agents prior to and during the term of the Strategic Alliance Agreement (GAIA Technology). LTC and GAIA will each own jointly and equally with the other all Technology invented, discovered or developed jointly by the two units, their employees or agents during the term of the Strategic Alliance Agreement (Strategic Alliance Technology).

Pursuant to the Strategic Alliance Agreement, LTC granted to GAIA a worldwide, non-sublicensable, royalty-free license of all LTC Technology and GAIA granted to LTC a worldwide, non-sublicensable, royalty-free license of all GAIA Technology. Neither party may sell, transfer, divest or license to any third party, any Strategic Alliance Technology or any interest in the Technology that is the subject of the foregoing licenses without the written consent of the other party.

Pursuant to the Strategic Alliance Agreement, each party will have full responsibility for the application, prosecution, and maintenance of patents and/or patent applications worldwide for those inventions which are solely owned by such party. Unless the parties determine otherwise, all patent applications relating to LTC Technology, GAIA Technology and Strategic Alliance Technology will be filed in the U.S. and Germany. LTC will be the owner of any resulting patents, approvals or licenses issued by any governmental entity relating to any LTC Technology. GAIA will be the owner of any resulting patents, approvals or licenses issued by any governmental entity relating to any GAIA Technology. LTC and GAIA will be co-owners on an equal basis, of any resulting patents, approvals or licenses issued by any governmental entity relating to any Strategic Alliance Technology. LTC and GAIA have the right to bring and maintain any appropriate suit or action for infringement of any patent or other right with respect to Technology owned by such party.

In addition to technology sharing and licensing matters, the Strategic Alliance Agreement covers joint production, marketing, sales and distribution activities and similar matters. Pursuant to the Strategic Alliance Agreement, LTC and GAIA have agreed to enter into mutually acceptable manufacturing, supply, and other agreements. Each party must adhere to specified accounting and internal financial controls and furnish to the other party specified financial information.

RAW MATERIALS

We purchase various raw materials for use in our batteries. Certain materials used in our products are available only from a limited number of sources. The industry currently has sufficient capacity to meet our needs. There is no assurance, however, that our sources will remain available or the currently adequate supply of raw materials will continue.

RESEARCH AND DEVELOPMENT

We devote substantial resources to technology development activities related to the development of our battery products. Our research has focused upon bringing existing available technology to viable commercial production for specific applications. The majority of our effort is directed towards product quality, process yield improvement, identifying alternative raw materials and supplies for use in our batteries, and cost reduction. We seek evolutionary improvements for cell

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and battery design, including controls. We evaluate new materials, which are not direct substitutes, for use in our batteries, but offer advantages such as cost, safety and performance. We also investigate and develop patentable ideas in product design or processing that can offer added protection or licensing potential. During the fiscal years ended December 31, 2003 and 2002, we spent approximately \$4,383,000 and \$2,683,000, respectively, on research and development activities. We expect that product development expenses will increase significantly as we continue to advance our battery technology and develop products for commercial applications.

EMPLOYEES

As of April 13, 2004, we employed a total of 11 full-time and 1 part-time employees at GAIA USA, and 31 full-time and 2 part-time employees at GAIA Europe. In addition to being employees of LTC, Franz Kruger and Ralf Tolksdorf, are compensated through separate consulting agreements with GAIA (see Item 10 Executive Compensation Employment Agreements and Certain Employee Matters). None of our employees at the GAIA USA unit or the GAIA Europe unit are represented by a labor union. We consider our employee relations to be good.

GOVERNMENT REGULATION, SAFETY, ENVIRONMENTAL COMPLIANCE

We are subject to the requirements of U.S. federal, state, local and non-U.S. environmental and occupational safety and health laws and regulations. These include laws regulating air emissions, water discharge and waste management. Although it is our intent to comply with all such requirements and regulations, there can be no assurance that we are at all times in compliance. Environmental requirements are complex, change frequently and have tended to become more stringent over time. Accordingly, there can be no assurance that these requirements will not change or become more stringent in the future.

As with any battery, our lithium-ion batteries can short when not handled properly. Due to the high energy and power density of lithium-ion batteries, a short can cause rapid heat buildup. Under extreme circumstances, this could conceivably cause a fire. This is most likely to occur during the formation and/or testing phase of our process. We incorporate safety procedures in our battery testing lab to minimize safety risks, although there can be no assurance that an accident in any part of our facilities where charged batteries are handled will not occur. Any such accident could require an internal investigation by our technical staff, causing delays in further development and manufacturing of our products, which could adversely affect our operations and financial condition.

Our manufacturing process incorporates pulverized solids, which can be toxic to employees when allowed to become airborne in high concentrations. We have incorporated safety controls and procedures into our pilot line manufacturing processes designed to maximize the safety of our employees and neighbors. Any related incident, including fire or personnel exposure to toxic substances, could result in significant production delays or claims for damages resulting from injuries, which could adversely affect our operations and financial condition.

Prior to commercial production of our batteries, we will seek to obtain approval of our products by one or more of the organizations engaged in product safety, such as Underwriters Laboratories. Such approvals could require significant time and resources from our technical staff and, if redesign were necessary, result in a delay in the commercialization of our products.

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The U.S. Department of Transportation (USDOT) and the International Air Transport Association (IATA) have recently revised their regulations covering shipment of lithium ion batteries. Due to the size of our prototype HEV batteries, a permit is required to transport our lithium batteries from our manufacturing facility. Although similar batteries with other chemistries are routinely shipped from manufacturing facilities to all parts of the world, no assurance can be given that we will not encounter any difficulties in complying with new or amended USDOT or IATA regulations or regulations developed by other agencies such as the International Civil Aviation Organization or International Maritime Dangerous Goods.

ITEM 2. DESCRIPTION OF PROPERTY

LTC leases a 12,400 square foot research and development facility at 5115 Campus Drive in Plymouth Meeting, Pennsylvania. This facility is leased pursuant to a Lease Agreement with PMP Whitmarsh Associates dated July 22, 1994, as amended. The facility is being leased under a one-year lease extension that commenced on April 2, 2004 and ends on March 31, 2005. The base annual rent under the lease is \$146,268. This facility has sufficient space to meet the near-term needs of the GAIA USA unit. At the facility, we have a semiautomatic cell packaging and filling machine, coating equipment and lamination equipment, pieces of equipment critical to our ability to produce pilot quantities of batteries and to specify expansion and upgrading of continuous flow manufacture. Our corporate headquarters are located at the Plymouth Meeting, Pennsylvania facility.

GAIA owns a 176,000 square foot renovated research and development facility in the city of Nordhausen, Thuringia Germany. This facility has sufficient space to meet the near-term needs of the GAIA Europe unit and can be upgraded to increase production capacity from 1,000 to 3,600 watt-hours per day with a small investment of capital.

ITEM 3. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of our security holders during the fourth quarter of the fiscal year ended December 31, 2003.

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PART II

ITEM 5. MARKET FOR COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND SMALL BUSINESS ISSUER PURCHASES OF EQUITY SECURITIES

MARKET INFORMATION

Our common stock is traded in the over-the-counter market, and bid and asked prices in the common stock are quoted on the NASD OTC Electronic Bulletin Board under the symbol LTHU. The following table sets forth certain information with respect to the high and low bid prices for our common stock as of the close of each of the four calendar quarters of 2003 and 2002. Such quotations reflect inter-dealer prices, without retail mark-ups, mark-downs or commissions, and may not represent actual transactions.

	Bid Prices for Common Stock	
	High	Low
2003		
Fourth Quarter	2.6000	1.8000
Third Quarter	2.6000	1.5000
Second Quarter	2.0000	1.2000
First Quarter	2.4000	1.4000
2002		
Fourth Quarter	2.6000	1.6000
Third Quarter	2.8000	1.4000
Second Quarter	3.6000	2.2000
First Quarter	4.8000	3.7000

On April 13, 2004, the last sale price quoted on the OTC Bulletin Board was \$2.20. As of April 13, 2004, there were approximately 940 holders of record of our common stock.

DIVIDENDS

We have never paid cash dividends on our common stock and do not presently anticipate paying cash dividends in the foreseeable future. It is anticipated that earnings, if any, will be retained for use in our business for an indefinite period. Payments of dividends in the future, if any, will depend on, among other things, our ability to generate earnings, our need for capital, and our financial condition. Our 10% debentures prevent us from paying cash dividends on our common stock. Additionally, our ability to pay dividends is limited by applicable state law. Declaration of dividends in the future will remain within the discretion of our Board of Directors, which will review the dividend policy from time to time.

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SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets forth information as to securities issuable upon exercise of outstanding options and warrants and available for issuance under equity compensations plans as of December 31, 2003.

Plan category	Number of securities to be		Number of securities	
	issued upon exercise of	Weighted-average exercise	remaining available	for future issuance under
	outstanding options,	price of outstanding options,	equity compensation plans	(excluding securities
	warrants and rights	warrants and rights	reflected in column (a))	
	(a)	(b)	(c)	
Equity compensation plans approved by security holders	0	N/A	N/A	
Equity compensation plans not approved by security holders	<u>Options:</u>			
	1994 Plan-	58,794	\$ 5.20	0(1)
	Directors Plan-	7,918	\$ 5.60	0(1)
	1998 Plan-	49,905	\$ 5.60	0(1)
	2002 Plan-	41,250	\$ 3.80	308,750
	<u>Warrants:</u>			
		10,000	\$ 2.20	0
		834,307	\$ 3.00	0
		150,000	\$ 3.70	0
Total	1,152,174	\$ 3.36	308,750	

(1) Option Plan terminated as of December 31, 2002.

The following stock option and incentive plans are the plans of LTC and not of GAIA. GAIA does not have any stock option or incentive plans.

1994 STOCK INCENTIVE PLAN

LTC's Board of Directors adopted the 1994 Stock Incentive Plan (the "1994 Stock Plan") in February 1994. The 1994 Stock Plan was terminated as of December 31, 2002. All options outstanding under the 1994 Stock Plan were 100% vested in February 2000. Vested options are exercisable for up to sixty months upon termination of the grantees employment or association with LTC.

DIRECTORS STOCK OPTION PLAN

In August 1995, the Board of Directors of LTC adopted the Directors Stock Option Plan (the Directors Plan).

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The Directors Plan was terminated as of December 31, 2002. All options outstanding under the Directors Plan were 100% vested in February 2000. Upon the termination of a participants association with LTC, options granted will remain exercisable for a period of three months or until the state expiration of the stock option, if earlier.

1998 STOCK INCENTIVE PLAN

LTC's Board of Directors adopted the 1998 Stock Incentive Plan (the "1998 Plan") in December 1998. The 1998 Plan was terminated as of December 31, 2002. All options outstanding under the 1998 Plan were 100% vested in February 2000. Vested options are exercisable for up to sixty months upon termination of the grantee's employment or association with LTC.

2002 STOCK INCENTIVE PLAN

LTC's Board of Directors adopted the 2002 Stock Incentive Plan (the "2002 Plan") in January 2002. The 2002 Plan terminates in 2012. A total of 350,000 shares of common stock are reserved and available for grant. The exercise price of an option granted under the 2002 Plan will not be less than the fair market value of LTC's Common Stock on the date of grant; however, for any non-qualified stock option the option price per share of Common Stock, may alternatively be fixed at any price deemed to be fair and reasonable as of the date of the grant. Options granted that are not vested will be cancelled immediately upon termination of the grantee's employment or association with LTC, except in certain situations such as retirement, death or disability. Vested options are exercisable for up to sixty months upon termination of the grantee's employment or association with LTC.

WARRANTS

See Note 14 to Consolidated Financial Statements for a description of our outstanding warrants.

SECURITIES ISSUED DURING QUARTER ENDED DECEMBER 31, 2003

None.

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ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read together with the Consolidated Financial Statements and the accompanying notes to the Consolidated Financial Statements included elsewhere in this Report.

GENERAL

OVERVIEW

We are a development and pilot-line production stage company that develops large format lithium-ion rechargeable batteries to be used as a new power source for emerging applications in the national security, transportation and stationary power markets.

Since inception, we have incurred substantial operating losses and expect to incur substantial additional operating losses over the next several years. As of December 31, 2003, we had an accumulated deficit of \$37,579,000. Our operations have been financed primarily through equity financings, loans from shareholders, other related parties, loans from silent partners and bank borrowings secured by assets.

In October and December 2002, LTC closed the Share Exchange in which LTC acquired a 100% interest in GAIA through LTC's acquisition of 100% of the outstanding shares of GAIA Holding from Arch Hill Ventures in exchange for LTC's issuance to Arch Hill Ventures of 1,000 shares of LTC's Series A Preferred Stock. The Preferred Stock was converted into 5,567,027 shares of LTC's common stock on February 25, 2004. Arch Hill Capital controls Arch Hill Ventures.

Subsequent to the Share Exchange, Arch Hill Capital controls LTC. As a result, the Share Exchange is accounted for as a reverse acquisition, whereby for financial reporting purposes, GAIA Holding is considered the acquiring company. Hence, the historical financial statements of GAIA Holding became the historical financial statements of the Company and include the results of operations of LTC only from the acquisition date.

The historical consolidated financial statements presented herein are those of GAIA Holding and only include the operating results of LTC from October 4, 2002.

Effective July 28, 2003, LTC implemented a one-for-twenty reverse stock split of the Company's common stock (See Note 14). On May 9, 2003, the Company reduced the outstanding and authorized Series A Preferred Stock from 100,000 to 1,000 shares (See Note 14). The reverse stock split and Series A Preferred Stock reduction have been reflected retroactively in the accompanying financial statements and notes for all periods presented and all applicable references as to the number of common shares and per share information, preferred shares, stock option data and market prices have been restated to reflect the reverse stock split and Preferred Stock reduction. In addition, stockholders' deficit has been restated retroactively for all periods presented for the par value of the number of shares that were eliminated.

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JANUARY 2004 CONVERTIBLE DEBENTURE FINANCING

General

On January 20, 2004, we entered into a securities purchase agreement with an investment group to purchase \$2,000,000 of our 10% Convertible Debentures Due 2006 (January 2004 debentures) with attached warrants to purchase up to 1,000,000 shares of our common stock. On January 22, 2004 we closed the convertible debenture financing. The proceeds were used for working capital. We are continuing to seek other financing initiatives to meet our working capital needs and to complete our product commercialization process.

We paid a finder cash at the closing of the January 2004 debenture financing in the amount of 7% of the total proceeds of the financing. The finder is also entitled to receive from us warrants to purchase such number of shares of the our common stock equal to 10% of the aggregate number of fully diluted and/or converted shares of common stock as are purchased by the January 2004 debenture holders (after giving effect to any increase in shares under a ratchet or similar provision pursuant to which the number of shares initially purchased is subsequently increased). The warrants will be exercisable until January 20, 2009 and will have an exercise price per share equal to 110% of the effective per share price paid by the January 2004 debenture holders for the securities purchased by such debenture holders.

General Description of January 2004 Debentures

Our January 2004 debentures have a maturity date of January 20, 2006 at which time the principal amount and all accrued interest on the debentures is due and payable. Interest payments on the January 2004 debentures are due and payable in cash, or at the option of the January 2004 debenture holder, in our common stock at a price equal to the conversion price of our common stock as described below. Interest is due quarterly commencing March 31, 2004. Any amount of principal or interest on the January 2004 debentures which is not paid when due bears interest at 15% per annum from the due date of such payment default.

The January 2004 debentures are secured by security agreements under which we pledged substantially all of our assets, including our goods, fixtures, equipment, inventory, contract rights, receivables and intellectual property and certain equipment of GAIA.

The January 2004 debentures are convertible at any time at the option of the holder into shares of our common stock. The conversion price of our common stock used in calculating the number of shares issuable upon conversion, or in payment of interest on the 10% debentures, is the lesser of:

50% of the average of the lowest three trading prices of our common stock for the twenty trading days ending one trading day prior to the date we receive a conversion notice from a January 2004 debenture holder; and

a fixed conversion price of \$2.00.

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We have the right to prepay all or a portion of the outstanding January 2004 debentures and accrued and unpaid interest upon prior written notice to the holders of the January 2004 debentures in an amount equal to 130% of principal and interest for prepayments occurring from January 20, 2004 through March 19, 2004, 140% for prepayments of principal and interest occurring from March 20, 2004 through April 18, 2004 or 150% for prepayment of principal and interest occurring after April 18, 2004. If we prepay all of the outstanding January 2004 debentures, we must issue an aggregate of 2.5% of our total issued and outstanding common stock to the January 2004 debenture holders on a pro rata basis.

Description of Warrants Issued on the January 2004 Debenture Financing

The warrants purchased by the January 2004 debenture holders entitle the January 2004 debenture holders to purchase 1,000,000 shares of our common stock at an exercise price of \$2.00 per share.

The warrants expire on January 20, 2009. The warrants are subject to exercise price adjustments upon the occurrence of certain events including stock dividends, stock splits, mergers, reclassifications of stock or our recapitalization. The exercise price of the warrants is also subject to reduction if we issue any rights, options or warrants to purchase shares of our common stock at a price less than the market price of our shares as quoted on the OTC Bulletin Board, subject to certain exceptions.

Also, if at any time, we declare a distribution or dividend to the holders of our common stock in the form of cash, indebtedness, warrants, rights or other securities, the holders of the warrants are entitled to receive the distribution or dividend as if the warrant holders had exercised the warrants.

Registration Rights Agreement with the January 2004 Debenture Holders

Simultaneously with the execution of the securities purchase agreement, we entered into a registration rights agreement with the January 2004 debenture holders. The holders of the January 2004 debentures and attached warrants are entitled to registration of the shares underlying the January 2004 debentures, warrants and any shares issuable upon repayment of the debentures by April 29, 2004. The holders are also entitled under the registration rights agreement to certain piggy-back registration rights if we file a registration statement relating to a sale of securities for our own account.

APRIL 2004 DEBT EXCHANGE

General

On April 13, 2004, pursuant to a Debt Exchange Agreement between LTC, GAIA Holding, GAIA, Arch Hill Capital and Arch Hill Ventures, we exchanged debt owed to Arch Hill Capital and Arch Hill Ventures for our debentures and equity securities. Pursuant to the terms of our bridge financing agreement with Arch Hill Capital, amounts outstanding under any promissory notes issued from July 29, 2002 to December 2002 were exchangeable into debentures in the amount of such promissory notes and one warrant for each \$1.00 principal of debentures, on the same terms as the securities issued to the January 2004 debenture holders (the January 2004 Securities). Further, pursuant to the terms of the bridge

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financing agreement, Arch Hill Capital had the option to apply all amounts due under bridge notes issued from January 1, 2003 for 10% debentures in the amount of such promissory notes and one warrant for each \$1.00 principal of debentures, on the same terms as the January 2004 Securities. Arch Hill Capital waived its right to acquire securities having the same terms as the January 2004 Securities for all of the bridge notes issued from January 1, 2003 to April 13, 2004, other than with respect to \$1,412,625 of bridge notes issued in 2003, provided shares of our common stock and warrants were issued for such debt.

Based on the foregoing, on April 13, 2004, (i) \$1,587,375 of bridge notes held by Arch Hill Capital and issued in 2002 were exchanged for \$1,587,375 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 793,688 shares of our common stock exercisable at \$2.00 per share, (ii) \$1,412,625 of bridge notes held by Arch Hill Capital and issued in 2003 were exchanged for \$1,412,625 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 706,312 shares of our common stock exercisable at \$2.00 per share, (iii) \$5,459,502 of bridge notes issued in 2003 and \$918,159 of bridge notes issued from January 1, 2004 through April 13, 2004 and \$323,284 of interest on the bridge notes issued in 2003 and 2004 were exchanged for 6,069,697 shares of our common stock and warrants to purchase up to 10,500,000 shares of our common stock exercisable at \$2.40 per share and (iv) \$23,185,604 of debt owed to Arch Hill Ventures was exchanged for 21,001,453 shares of our common stock. As a condition to the closing of the debt exchange, we received from our financial advisor, an opinion that the debt exchange is fair from a financial point of view to our stockholders.

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General Description of April 2004 Debentures

The April 2004 debentures have a maturity date of April 13, 2006 at which time the principal amount and all accrued interest on the April 2004 debentures is due and payable. Interest payments on the April 2004 debentures are due and payable in cash, or at the option of Arch Hill Capital, in our common stock at a price equal to the conversion price of our common stock as described below. Interest is due quarterly commencing June 30, 2004. Any amount of principal or interest on the April 2004 debentures which is not paid when due bears interest at 15% per annum from the due date of such payment default.

The April 2004 debentures are convertible at any time at the option of the holder into shares of our common stock. The conversion price of our common stock used in calculating the number of shares issuable upon conversion, or in payment of interest on the April 2004 debentures, is the lesser of:

50% of the average of the lowest three trading prices of our common stock for the twenty trading days ending one trading day prior to the date we receive a conversion notice from a 10% debenture holder; and

a fixed conversion price of \$2.00.

We have the right to prepay all or a portion of the outstanding April 2004 debentures and accrued and unpaid interest upon prior written notice to the holders of the April 2004 debentures in an amount equal to 130% of principal and interest for prepayments occurring from April 13, 2004 through June 12, 2004, 140% for prepayments of principal and interest occurring from June 13, 2004 through July 12, 2004 or 150% for prepayment of principal and interest occurring after July 12, 2004.

Description of Warrants Issued in the Debt Exchange

In the debt exchange, we issued warrants to Arch Hill Capital to purchase 1,500,000 shares of our common stock at an exercise price of \$2.00 per share and warrants to purchase 10,500,000 shares of our common stock at \$2.40 per share.

The warrants issued to Arch Hill Capital expire on April 13, 2009. The warrants are subject to exercise price adjustments upon the occurrence of certain events including stock dividends, stock splits, mergers, reclassifications of stock or our recapitalization. The exercise price of the warrants is also subject to reduction if we issue any rights, options or warrants to purchase shares of our common stock at a price less than the market price of our shares as quoted on the OTC Bulletin Board.

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Also, if at any time, we declare a distribution or dividend to the holders of our common stock in the form of cash, indebtedness, warrants, rights or other securities, the holders of the warrants are entitled to receive the distribution or dividend as if the holder had exercised the warrant.

Registration Rights

The shares of common stock issued in the debt exchange and issuable upon conversion of the April 2004 debentures and exercise of the warrants are restricted securities. Arch Hill Capital and Arch Hill Ventures have the right to include all of the securities owned by such entities, including the securities issued in the debt exchange, in the registration statement that we are required to file to register the securities issued in connection with the closing of our January 2004 debenture financing. However, pursuant to an agreement entered into with the holders of the January 2004 debentures, any Arch Hill Capital and Arch Hill Ventures securities included in the registration statement may not be sold during the first 12 months that the registration statement is declared effective by the Securities and Exchange Commission, unless the January 2004 debentures have been repaid or converted prior to that time.

PROVISIONS APPLICABLE TO JANUARY 2004 DEBENTURES AND APRIL 2004 DEBENTURES

The January 2004 debentures and the April 2004 debentures (together, the 10% debentures) both include the following provisions:

Conversion Price Adjustment

Under the terms of the 10% debentures, the conversion price of the 10% debentures is subject to change in the event:

we make a public announcement that we intend to consolidate or merge with any other corporation (other than a merger in which we are the surviving or continuing corporation and our capital stock is unchanged) or sell or transfer all or substantially all of our assets;
or

any person, group or entity publicly announces a tender offer to purchase 50% or more of our common stock (or any other takeover scheme).

In case of any of the above events, the conversion price of the 10% debentures will, effective upon the announcement date of any of such transaction and continuing through the termination or abandonment of the proposed transaction which caused these terms of the 10% debentures to become operative, be the lower of:

the conversion price which would have been applicable for a conversion occurring on the announcement date of such transaction; and

the conversion price that would otherwise be in effect.

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Sale of Assets, Etc.

Under the terms of the 10% debentures, if we at any time sell, convey or dispose of all or substantially all of our assets, effectuate any transaction or series of related transactions in which more than 50% of the voting power of our stock is disposed of, or we consolidate, merge or combine with any other entity and we are not the survivor, then at the option of the 10% debenture holder either:

the 10% debenture holder may participate in the transaction as if the 10% debenture holder had converted the 10% debentures prior to such transaction; or

such event will be deemed to be an event of default pursuant to which we will be required to pay the 10% debenture holder upon consummation of such transaction an amount equal to the greater of:

130% of the outstanding principal amount plus accrued interest on the 10% debentures plus default interest, if any, plus any amounts owed to the 10% debenture holder under the registration rights agreement; and

the value of the number of shares of our common stock into which the 10% debentures are convertible based upon the trading price of our common stock on the day preceding the date of payment.

Distributions

Under the terms of the 10% debentures, if at any time the 10% debentures are outstanding, we:

distribute any shares of our common stock in a merger, consolidation, exchange of shares, recapitalization or reorganization or we sell all or substantially all of our assets (other than in connection with a plan of complete liquidation), the 10% debenture holders are entitled to participate in the distribution as if the 10% debenture holders had converted the 10% debentures;

distribute any of our assets to our stockholders as a dividend, stock repurchase, return of capital, or otherwise, the 10% debenture holders are entitled to participate in the distribution as if the 10% debentures holders had converted the 10% debentures; or

issue or sell any shares of our common stock for no consideration or at a price less than \$2.00 per share, subject to certain exceptions, then the \$2.00 fixed conversion price of the 10% debentures will be reduced to the price per share we receive on the issuance or sale.

Purchase Rights

Under the terms of the 10% debentures, if we issue any convertible securities or right to purchase stock, warrants securities or other property to the holders of our common stock, the 10% debenture holders are entitled to acquire such purchase rights as if the 10% debenture holders have converted the 10% debentures.

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Covenants Contained in the Debentures

Under the terms of the 10% debentures, we are required to reserve from our authorized and unissued common stock a sufficient number of shares to provide for the issuance of common stock upon the full conversion of the 10% debentures and exercise of the warrants. We are required at all times to have authorized and reserved two times the number of shares that is actually issuable upon full conversion of the 10% debentures and exercise of the warrants (based on the conversion price of the 10% debentures and exercise price of the warrants in effect from time to time).

In the event that we do not have authorized the maximum number of shares for issuance as required by the 10% debentures, we must use our best efforts to seek and obtain shareholder approval to authorize the issuance of the full number of shares of common stock which would be issuable upon full conversion of the then outstanding 10% debentures as soon as practicable.

The January 2004 debentures also provide that if, at any time a holder of a 10% debenture submits a notice of conversion, and we do not have sufficient authorized but unissued shares of common stock available to effect such conversion, we must issue to the holder of the 10% debenture all of the shares of common stock which are then available to effect such conversion. In addition, we must pay to the 10% debenture holder a conversion default payment in the amount of 130% of the sum of the then outstanding principal amount of the 10% debenture plus accrued and unpaid interest. The conversion default payment must be paid through the date that we authorize a sufficient number of shares of common stock to effect conversion of the full outstanding principal balance of the 10% debenture. The conversion default payments for each calendar month are payable in cash or are convertible into common stock at such time as there are sufficient authorized shares of common stock at the applicable conversion price, at the option of the 10% debenture holder.

The 10% debentures provide that we may not, without the prior written consent of the debentures holders, do any of the following:

pay, declare or set apart for payment any dividend or other distribution on shares of our capital stock other than shares issued in the form of a stock dividend;

redeem, repurchase or otherwise acquire any shares of our capital stock or any warrants, rights or options to purchase or acquire our shares of capital stock;

sell, lease or otherwise dispose of any significant portion of our assets outside of the ordinary course of our business;

lend money, give credit or make advances to any person or entity except as in existence or committed on the date of issuance of the 10% debentures, in the ordinary course of our business or not in excess of \$50,000; or

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assume, guarantee, endorse or otherwise become liable upon the obligation of any person or entity except as in existence or committed on the date of issuance of the 10% debentures, in the ordinary course of our business or not in excess of \$50,000.

The January 2004 debentures also provide that we may not without the consent of the holder of such debentures:

incur any indebtedness, except indebtedness in existence or committed on January 20, 2004 and additional borrowings from existing lenders of which we have informed the holders of the 10% debentures, indebtedness to trade creditors or financial institutions incurred in the ordinary course of our business or to repay the 10% debentures.

Covenants

The securities purchase agreement and debt exchange agreement each contain a number of covenants, including the following:

we must timely permit the transfer of the 10% debentures, warrants and conversion shares which are eligible for transfer under an exemption from registration;

we must timely file all of our reports with the Securities and Exchange Commission;

we must keep at all times authorized and reserved for issuance, two times the number of shares that is actually issuable upon full conversion of the 10% debentures and exercise price of the warrants (based on the conversion price of the 10% debentures and exercise price of the warrants in effect from time to time);

we must maintain the listing of the common stock and the shares issuable upon conversion of the 10% debentures or exercise of the warrants on at least the OTC Bulletin Board (or equivalent replacement exchange), the NASDAQ National Market, the NASDAQ SmallCap Market, the New York Stock Exchange or the American Stock Exchange; and

we must maintain our corporate existence and we may not sell all or substantially all of our assets except in the event of a merger or consolidation or sale where the surviving entity assumes all of our obligations under the securities purchase agreement, the 10% debentures and related agreements and such entity is a publicly traded corporation whose stock is listed for trading on the OTC Bulletin Board, NASDAQ, the NASDAQ SmallCap Market, the New York Stock Exchange or the American Stock Exchange.

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The securities purchase agreement also contains the following covenants:

we may not without the consent of the majority of the January 2004 debenture holders, grant any registration rights to any third party at any time prior to 12 months from the date the registration statement that we are required to file under our registration rights agreement with the January 2004 debenture holders becomes effective; and

we may not without the consent of the majority of the January 2004 debenture holders, conduct any equity financing during the period ending 30 months after the effective date of the registration statement we are required to file under our registration rights agreement with the January 2004 debenture holders without providing the January 2004 debenture holders with the opportunity to participate in the equity financing on the same terms and conditions offered to the potential investors.

In the event of a breach of any material covenant in the securities purchase agreement, we are required to pay to the January 2004 debenture holders damages in the amount of 3% of the outstanding amount of the January 2004 debentures per month of such breach plus accrued and unpaid interest on the January 2004 debentures, prorated for partial months, in cash or shares at the conversion price of the January 2004 debentures, at our option, until such breach is cured.

Events of Default under the 10% Debenture

If we commit an event of default under the 10% debentures, the 10% debentures will become immediately due and payable and we must pay to the 10% debenture holders an amount equal to the greater of:

130% of the outstanding principal amount plus accrued interest on the 10% debentures plus default interest, if any, plus any amounts owed to the 10% debenture holders under the registration rights agreement; or

the value of the number of shares of our common stock into which the 10% debentures are convertible based upon the trading price of our common stock on the day preceding the date of payment.

In the event of default under the January 2004 debentures the holders of such debentures would also have the right to exercise their rights under the security agreements securing the January 2004 debentures which could lead to control of substantially all of our assets by the January 2004 debenture holders.

Events of default under the 10% debentures include:

our failure to pay timely any principal or interest due on the 10% debentures;

our failure or inability to issue shares of our common stock upon conversion of the 10% debentures or exercise of the attached warrants;

our breach of any of the material covenants, representations or warranties included in the 10% debentures or the related purchase agreement or registration rights agreement, as applicable

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an assignment by us for the benefit of creditors or appointment of a receiver or trustee for a substantial part of our business or property;

an unstayed judgment entered against us for more than \$100,000;

bankruptcy, insolvency, reorganization, liquidation proceedings or similar proceedings instituted by or against us or any of our subsidiaries; or

our failure to maintain the listing of our common stock on the OTC Bulletin Board (or equivalent replacement exchange), the NASDAQ National Market, the NASDAQ SmallCap Market, the New York Stock Exchange or the American Stock Exchange.

Events of default under the January 2004 debentures also include:

our failure to file a registration statement covering the shares underlying the 10% debentures and warrants by May 10, 2004 or failure to have the registration statement effective by August 27, 2004, or lapses in effectiveness of the registration statement for more than 20 consecutive days or 40 days in any twelve-month period after the registration statement becomes effective.

Standstill Agreements of Arch Hill

Arch Hill Capital and Arch Hill Ventures agreed, in connection with the sale of our January 2004 debentures, that neither they nor their affiliates would, for a period beginning January 20, 2004 and ending 12 months from the date the registration statement covering the January 2004 debentures and warrants is declared effective by the Securities and Exchange Commission or such earlier date that we repay all amounts due under the January 2004 debentures or that all of the January 2004 debentures have been fully converted:

offer to sell, contract to sell, pledge, grant any rights or otherwise dispose of any shares of our common stock held by such entities without the prior consent of the January 2004 debenture holders; or

engage in any hedging transactions which are designed or reasonably expected to lead to or result in a disposition of the shares of our common stock held by such entities.

Arch Hill Capital and Arch Hill Ventures also agreed not to, without our consent, exercise any right that it may have to exchange any debt owed by us or any subsidiary of ours during such period as we are engaging a financial advisor to opine on the debt transaction which period may not extend beyond June 30, 2004.

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RESULTS OF OPERATIONS

Revenues from development contracts and prototype sales increased by \$108,000 or 89% to \$229,000 in 2003 from \$121,000 in 2002. Revenues from development contracts and prototype sales in 2003 increased largely due to an increase in technology and marketing activities in large high rate battery applications, which resulted in increased prototype and development contracts as well as a full year of operating results of LTC for 2003 versus three months in 2002 from the effective date of the Share Exchange.

Engineering, research and development expenses in 2003 increased by 63% to \$4,383,000 from \$2,683,000 in 2002. These increases resulted primarily from advancement of our technology in large high rate battery applications and the inclusion of the operating results of LTC for a full year. We expect our engineering, research and development expenses to increase slightly in fiscal 2004.

General and administrative expenses in 2003 increased by \$1,588,000 or 76% to \$3,665,000 from \$2,077,000 in 2002. These increases were due to increased legal, accounting and financial printer expenses related to the preparation of GAIA Holding financial statements in accordance with U.S. GAAP, increased travel expenses, preparation of the Company's SEC filings, and the inclusion of the operating results of LTC for a full year.

Depreciation and amortization for 2003 increased by \$836,000 or 128% to \$1,489,000 from \$653,000 in 2002. \$9,965,000 of the purchase price of the Share Exchange was allocated to intangible assets (patents) and will be amortized ratably over 12 years commencing October 2002. \$167,000 and \$872,000 of such allocation was amortized during the years ended December 31, 2002 and 2003, respectively.

\$3,700,000 of the purchase price of the Share Exchange was allocated to in-process research and development and resulted in \$3,700,000 of intangible expenses for 2002.

Income from foreign government subsidies in 2003 decreased by \$227,000 or 20% to \$885,000 from \$1,112,000 in 2002. These decreases resulted from the completion of a number of foreign government subsidy contracts, and a shift in emphasis from contract research to commercial production.

Interest expense, net of interest income, for 2003 increased by \$500,000 or 40% to \$1,761,000 from \$1,261,000 in 2002. Interest expense increased as a result of increased loans from Arch Hill Capital and Arch Hill Ventures during fiscal 2002 and 2003.

There was a net loss of \$10,191,000 or \$1.02 per share for the year ended December 31, 2003 as compared to a net loss of \$9,184,000 or \$1.38 for the year ended December 31, 2002. The increase in the net loss was primarily related to inclusion of the operating results of LTC for a full year.

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Since inception, we have incurred substantial operating losses and expect to incur substantial additional operating losses over the next several years. As of December 31, 2003, our accumulated deficit was \$37,579,000.

LIQUIDITY AND FINANCIAL CONDITION

We have financed our operations since inception primarily through equity financings, loans from shareholders and other related parties, loans from silent partners and bank borrowings secured by assets.

Arch Hill Capital entered into a bridge financing agreement with LTC as of January 8, 2002, as amended from time to time. Effective October 4, 2002, in connection with waiving the \$5,000,000 financing condition of the closing of the Share Exchange, LTC and Arch Hill Capital amended the bridge financing loan agreement to provide that any promissory notes issued on or after July 29, 2002 would be applied against the purchase price of equity securities being sold by LTC in any equity financing after the closing of the Share Exchange and that any promissory note issued prior to July 29, 2002 would be converted into common stock as of the closing of the Share Exchange.

On October 4, 2002, \$1,914,567 in principal of outstanding promissory notes issued by LTC to Arch Hill Capital prior to July 29, 2002 were converted, at \$1.60 per share, into 1,196,604 shares of LTC common stock. \$1,588,000 in principal of non-convertible promissory notes were issued from July 29, 2002 through December 31, 2002. The amounts due under the non-convertible notes issued from July 29, 2002 through December 31, 2002 are not repayable in cash but are to be applied against the purchase price of any equity securities sold by us in any equity financing after the issuance of the notes.

On April 14, 2003, we and Arch Hill Capital amended the Arch Hill Capital bridge financing agreement to provide that the entire principal balance and all other sums due and payable under any Promissory Note issued from July 29, 2002 to December 31, 2002 shall be applied against the purchase price of equity securities being sold by us in any equity financing after April 14, 2003. The entire principal balance and all other sums due and payable under any Promissory Note issued on or after January 1, 2003 shall be payable upon twelve months written demand by Arch Hill. Notwithstanding the foregoing, at the option of Arch Hill, the principal balance and all other sums due and payable under any Promissory Note issued on or after January 1, 2003 may be applied against the purchase price of equity securities being sold by us in any equity financing after the date of such note.

From January 1, 2003 through December 31, 2003, \$6,872,000 in principal of promissory notes were issued under the bridge financing agreement. From January 1, 2004 through April 8, 2004, \$918,000 in principal of promissory notes were issued under the bridge financing agreement.

The Arch Hill bridge financing agreement, as amended, does not contain a maximum of the amount of funding that may be advanced under such agreement. Accordingly, there is no maximum amount of notes that may be issued to Arch Hill Capital. The amount of notes will be related to the working capital advances made by Arch Hill Capital to us and the length of time until a new debt or equity financing is completed.

Arch Hill Ventures has entered into a bridge financing agreement with GAIA. (See Long Term Liabilities Subordinated Loans From Related Party.). As of December 31, 2003, advances from Arch Hill Ventures to GAIA under this agreement were \$27,625,000.

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At December 31, 2003, cash and cash equivalents were \$127,000. Total liabilities at December 31, 2003 were \$52,181,000 consisting of current liabilities in the aggregate amount of \$4,505,000 and long-term liabilities in the amount of \$47,676,000. As of December 31, 2003, our working capital deficit was \$3,506,000. We expect to incur substantial operating losses as we continue our commercialization efforts.

At December 31, 2003, assets included \$3,203,000 due from related parties, property and equipment, net, of \$5,635,000, net intangibles of \$9,084,000, and other assets of \$20,000.

In January 2004, we sold \$2,000,000 of our January 2004 debentures with attached warrants to purchase up to 1,000,000 shares of our common stock in a private placement to an investment group. See January 2004 Convertible Debenture Financing.

In February 2004, Arch Hill Capital converted the \$3,949,000 convertible promissory note issued by us into 1,974,500 shares of our common stock, pursuant to the terms of such note and Arch Hill Ventures converted 1,000 shares of Series A Preferred Stock that it held into 5,567,027 shares of our common stock pursuant to the terms of such shares of Preferred Stock.

On April 13, 2004, pursuant to a Debt Exchange Agreement between LTC, GAIA Holding, GAIA, Arch Hill Capital and Arch Hill Ventures, we exchanged debt owed to Arch Hill Capital and Arch Hill Ventures for our debentures and equity securities. \$1,587,375 of bridge notes held by Arch Hill Capital and issued in 2002 were exchanged for \$1,587,375 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 793,688 shares of our common stock exercisable at \$2.00 per share. \$1,412,625 of bridge notes held by Arch Hill Capital and issued in 2003 were exchanged for \$1,412,625 of our 10% Convertible Debentures Due 2006 and warrants to purchase up to 706,312 shares of our common stock exercisable at \$2.00 per share. \$5,459,502 of bridge notes issued in 2003 and \$918,159 of bridge notes issued from January 1, 2004 through April 13, 2004 and \$323,284 of interest on the bridge notes issued in 2003 and 2004 were exchanged for (i) 6,069,697 shares of our common stock and (ii) warrants to purchase up to 10,500,000 shares of our common stock exercisable at \$2.40 per share. \$23,185,604 of debt owed to Arch Hill Ventures was exchanged for 21,001,453 shares of our common stock.

We do not currently have sufficient cash to meet our working capital needs or to achieve all of our development and production objectives. In order to have sufficient capital resources for our development, production, operating and administrative needs, we need to close on a debt or equity financing transaction in the near term. We anticipate that such an equity financing could be up to approximately \$12,000,000, although no definitive terms have been established as of the date of this Report. We believe that if we raise approximately \$10,000,000 to \$12,000,000 in a debt or equity financing, we would have sufficient funds to meet our needs for at least twelve months. We have not entered into any definitive agreements relating to a new financing as of April 13, 2004 and no assurance can be given that any financing will be consummated.

If a new financing is not consummated, we will assess all available alternatives including a sale of our assets or merger, the suspension of operations and possibly liquidation, auction, bankruptcy, or other measures.

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LONG TERM LIABILITIES

The Company's long-term liabilities at December 31, 2003 were as follows:

Convertible debt securities	\$ 12,609,000
Loans from financial institutions	2,300,000
Subordinated loans from related party	27,625,000
Silent partnership loans-related party	3,203,000
Silent partnership loans	2,598,000
	<u>48,335,000</u>
Less current maturities	(659,000)
	<u>\$ 47,676,000</u>

CONVERTIBLE DEBT SECURITIES

Convertible debt securities are comprised of promissory notes held by Arch Hill Capital. \$3,949,000 of these promissory notes are convertible into 1,974,500 shares of LTC common stock and were acquired by Arch Hill Capital from a third party. The terms of the securities are such they have no stated interest rate, no repayment terms and are not intended to be repaid by the Company in cash. Upon conversion, there may be a charge related to the beneficial conversion of these notes if the share price at the time of conversion is in excess of \$2.00 per share.

The remaining promissory notes were issued under a Bridge Financing Agreement, as amended, between LTC and Arch Hill Capital. Under the Bridge Financing Agreement, as amended, \$1,588,000 of the promissory notes issued by LTC from July 29, 2002 to December 31, 2002 are convertible into equity securities based on the price per share of any new equity financing of the Company entered into after the closing of the first Share Exchange.

Under the Bridge Financing Agreement, as amended, the principal balance and all other sums due and payable under any promissory note issued on or after January 1, 2003 bear interest at 6% per annum and are payable upon twelve months written demand by Arch Hill Capital. Notwithstanding the foregoing, at the option of Arch Hill Capital, the principal balance and all other sums due and payable under any promissory note issued on or after January 1, 2003 may be applied against the purchase price of equity securities being sold by the Company in any equity financing after the date of such note.

The Bridge Financing Agreement, as amended, does not contain a maximum of the amount of funding that may be advanced under such Agreement. The amount of any additional notes provided will be related to the working capital advances made by Arch Hill Capital to the Company.

During the period January 1, 2004 to April 8, 2004, Arch Hill Capital advanced \$918,000 to the Company under the Bridge Financing Agreement. Accrued interest on the notes of \$200,000 as of December 31, 2003 is included in the convertible debt securities balance on the balance sheet.

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LOANS FROM FINANCIAL INSTITUTIONS

We have two loans from financial institutions that are collateralized by (i) land and buildings in an amount up to \$1,192,000 and (ii) machinery, equipment and patents in an amount of \$2,547,000 as collateral for the mortgage loan. The loans bear interest between 5.75% and 6.75% per annum and are due by December 31, 2014. As of December 31, 2003 the total amount outstanding under these loans was \$2,300,000.

SUBORDINATED LOANS FROM RELATED PARTY

GAIA has received subordinated loans from Arch Hill Ventures, a related party. The loans bear cumulative interest at 6% per annum. Under the contract terms, the loans can be called when GAIA does not have negative stockholders' equity. The loans are subordinated to all other creditors of GAIA. A portion of the loans were converted to shares subsequent to December 31, 2003.

SILENT PARTNERSHIP LOANS - RELATED PARTY

Tamarchco GmbH (Tamarchco), a 100% owned subsidiary of Arch Hill Ventures, has provided three silent partnership loans to GAIA. The partnership loans consist of a \$1,935,000 loan bearing interest at 7% per annum under the First Tamarchco Partnership Agreement, a \$188,000 loan bearing interest at 6% per annum under the Second Tamarchco Partnership Agreement and a \$226,000 loan bearing interest at 6% under the Third Tamarchco Partnership Agreement. GAIA is not required to pay the interest under the Second and Third Tamarchco Partnership Agreements until GAIA has generated an accumulated profit amounting to \$4,837,000. The total amount payable to Tamarchco under the three Tamarchco Partnership Agreements at December 31, 2003 is \$3,203,000 including accrued interest of \$854,000.

Tamarchco is entitled to receive an annual 4% share in profits related to its contributions under the First Tamarchco Agreement and an annual 12% share in profits related to its contribution under the Second and Third Tamarchco Agreements. The 12% share in profits under the Second and Third Tamarchco Agreements are not payable until GAIA has generated an accumulated profit amounting to \$4,837,000.

Each Tamarchco Partnership Agreement terminates in December 2008, unless terminated prior to such time for good cause as defined in the applicable Tamarchco Partnership Agreement. The principal, accrued and unpaid interest, and unpaid profits are due on the termination of the Tamarchco Partnership Agreements.

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SILENT PARTNERSHIP LOANS NON RELATED PARTIES

Two other parties have provided silent partnership loans to GAIA which remain outstanding at December 31, 2003. Frankendael Participatiemaatschappij N.V. (Frankendael) has provided a partnership loan of \$504,000, which bears interest at 6% per annum. Technologie-Beteiligungs-Gesellschaft GmbH der Deutschen Ausgleichsbank (TBG) has provided a partnership loan of \$1,935,000, which bears interest at 6% per annum. GAIA is not required to pay the interest under the Frankendael Partnership Agreement until GAIA has generated an accumulated profit amounting to \$4,837,000. The total amount payable to Frankendael and TBG under the Partnership Agreements at December 31, 2003 is \$2,598,000, including \$159,000 in accrued interest.

Frankendael and TBG are entitled to receive an annual 12% share in profits related to its contributions under the Frankendael Partnership Agreement and the TBG Partnership Agreement. The 12% share in profits under the Frankendael Partnership Agreement is not payable until GAIA has generated an accumulated profit amounting to \$4,837,000. The TBG Partnership Agreement provides that should GAIA receive additional injections of capital in the course of further financing rounds, TBG shall adjust its profit sharing to the capital ratio applicable at such time. Management believes that based upon subsequent equity received by GAIA that the present profit sharing that TBG is entitled to under the Agreement is approximately 4.4%. Management further believes that it is unlikely that Frankendael or TBG will receive any profit sharing under the Partnership Agreement at any time in the near future.

From March 8, 2005 under the TBG Partnership Agreement, TBG is entitled to demand a non-recurrent remuneration of 30% of the amount invested plus 6% of the amount invested at the end of the period of participation for each year after the expiration of the fifth full year of participation under certain circumstances relating to the economic condition of GAIA.

The Frankendael Partnership Agreement and the TBG Partnership Agreement each terminates in December 2008, unless terminated prior to such time for good cause as defined in the applicable partnership agreement.

The principal, accrued and unpaid interest, and unpaid profits are due on the termination of the Frankendael Partnership Agreement and the TBG Partnership Agreement.

GOING CONCERN MATTERS

Our accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the continuation of operations, realization of assets and liquidation of liabilities in the ordinary course of business. Since inception, we have incurred substantial operating losses and expect to incur additional operating losses over the next several years. Operations have been financed primarily through the use of proceeds from loans from Arch Hill Capital and other related parties, loans from silent partners, bank borrowings secured by assets and equity financings. On January 22, 2004, we sold \$2,000,000 of 10% Convertible Debentures Due 2006 with warrants to purchase up to 1,000,000 shares of LTC common stock in a private placement to an investment group. Continuation of our operations in 2004 is dependent upon obtaining further financing from either Arch Hill Capital or other related parties, or the new debt or equity financing described above. These conditions raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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MANAGEMENT'S PLANS TO OVERCOME
OPERATING AND LIQUIDITY DIFFICULTIES

In the past, we have worked closely with selected portable electronics Original Equipment Manufacturers (OEMs) exploring various notebook computer, personal digital assistant and wireless handset applications. Over the past four years, we have refocused our unique extrusion-based manufacturing process, cell technology, large battery assembly expertise, and market activities to concentrate on large-format, high rate battery applications. Our commercialization efforts are focused on applying our lithium-ion rechargeable batteries in the national security, transportation and stationary power markets.

Our operating plan seeks to minimize our capital requirements, but commercialization of our battery technology will require additional capital. We expect that technology development and operating and production expenses will increase significantly as we continue to advance our battery technology and develop products for commercial applications.

Although Arch Hill Capital has been providing funding to us under a Bridge Financing Agreement since December 2001, (see Note 10), there can be no assurance that funding will continue to be provided by Arch Hill Capital in the amounts necessary to meet all our obligations until the closing of a third party debt or equity financing or that we will be able to consummate such a financing.

We are currently seeking sources of additional financing, in the form of equity financing, to provide the additional capital in order to fund our current operations, scale-up our production capabilities to take advantage of near-term market opportunities, expand its scope of operations and pursue our business strategy. We believe that if we raise approximately \$10 to \$12 million in an equity financing we would have sufficient funds to meet our needs for at least twelve months. However, no assurance can be given that we will be successful in completing any financing. If we are unsuccessful in completing any financing, we will not be able to fund our current expenses or pursue our business strategy.

If a third party debt or equity financing is not consummated, we will assess all available alternatives including a sale of our assets or merger, a restructuring, the suspension of operations and possibly liquidation, auction, bankruptcy, or other measures.

Effective April 1, 2003, a 20% salary reduction was implemented for all employees of LTC at the GAIA USA unit, which reduced salaries will be repaid by us if a third party debt or equity financing of at least \$3,000,000 in gross proceeds is closed by June 30, 2004. Salary reduction deferrals of \$177,000 have been accrued in the financial statements. Upon the completion of the January 2004 debenture financing, we reinstated the base salary of each employee to 100% of the base salary in effect on March 31, 2003.

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CRITICAL ACCOUNTING POLICIES

The Securities and Exchange Commission (SEC) recently issued disclosure guidance for critical accounting policies . The SEC defines critical accounting policies as those that require application of management s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our significant accounting policies are described in Note 2 in the Notes to the Consolidated Financial Statements. Not all of these significant accounting policies require management to make difficult, subjective or complex judgments or estimates. However, the following policies could be deemed to be critical within the SEC definition.

REVENUES

We perform certain research and development for other companies and sell prototypes to third parties. Revenue is recognized as services are rendered or products are delivered, the price to the buyer is fixed and determinable, and collectibility is reasonably assured.

USEFUL LIVES OF TANGIBLE AND INTANGIBLE ASSETS