U.S. SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

Amendment No. 1

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

For the fiscal year ended December 31, 2011

☐ **TRANSITION REPORT UNDER SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 1-11388

PLC Systems Inc.

(Name of small business issuer in its charter)

Yukon Territory, Canada (State or other jurisdiction of incorporation of organization)	**04-3153858** (I.R.S. Employer Identification No.)
459 Fortune Boulevard **Milford, Massachusetts** (Address of principal executive offices)	**01757** Zip Code

(508) 541-8800
(Issuer's telephone number)

Securities registered under Section 12(b) of the Exchange Act: **None**

Securities registered under Section 12(g) of the Exchange Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, no par value	**OTC BB**

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

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

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

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

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

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

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

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

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 last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter. $5,881,127.

At November 14, 2012, the issuer had outstanding 31,809,428 shares of Common Stock, no par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

None

Table of Contents

EXPLANATORY NOTE

The purpose of this Amendment No. 1 to the our Annual Report on Form 10-K for the year ended December 31, 2011 ("Form 10-K") is to correct a typographical mistake in Item 8 in the Report of Independent Registered Public Accounting Firm (the "Report"). The date of such Report, found on Page F-2, should read "March 30, 2012" rather than "March 30, 2011." Other than such correction, there are no other changes in Item 8 as previously filed on Form 10-K. All financial statements and other information required to be filed hereunder are filed as Appendix A hereto, are listed under Item 15(a) and are incorporated herein by reference.

EXHIBIT INDEX

Item 15. ***Exhibits and Financial Statement Schedules***

(a) *Financial Statements*. The following documents are filed hereto and are included as part of this annual report on Form 10-K/A.

Table of Contents

All schedules for which provision is made in the applicable accounting regulation of the SEC that are not required under the related instructions or are inapplicable have been omitted.

(b) *Exhibits*.

The exhibits filed as part of this annual report on Form 10-K/A are set forth on the Exhibit Index immediately preceding such exhibits, and are incorporated herein by reference.

(c) *Financial Statement Schedules*.

See Item 15(a) above.

The exhibits as indexed immediately following the signature page of this Report are included as part of this Form 10-K/A.

Exhibit Number	Description
23.1*	Consent of McGladrey LLP
31.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Table of Contents

PART IV

SIGNATURES

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

PLC SYSTEMS INC.

Date: November 15, 2012

By: /s/ Mark R. Tauscher
Mark R. Tauscher
President and Chief Executive Officer

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

Name	Capacity	Date
/s/ Mark R. Tauscher Mark R. Tauscher	President, Chief Executive Officer and Director (Principal Executive Officer)	November 15, 2012
/s/ Gregory W. Mann Gregory W. Mann	Chief Financial Officer (Principal Financial and Principal Accounting Officer)	November 15, 2012
/s/ Edward H. Pendergast Edward H. Pendergast	Chairman of the Board	November 15, 2012
/s/ Kevin J. Dunn Kevin J. Dunn	Director	November 15, 2012
/s/ Benjamin L. Holmes Benjamin L. Holmes	Director	November 15, 2012
/s/ Brent Norton, M.D. Brent Norton, M.D.	Director	November 15, 2012

Table of Contents

PLC SYSTEMS INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
PLC Systems Inc.:

We have audited the accompanying consolidated balance sheets of PLC Systems Inc. and subsidiaries as of December 31, 2011 and 2010, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of PLC Systems Inc. and subsidiaries as of December 31, 2011 and 2010, and the results of their operations and their cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has sustained recurring net losses and negative cash flows from continuing operations, which raises substantial doubt about its ability to continue as a going concern. Management's plans concerning these matters are described in Note 1. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ McGladrey & Pullen, LLP

Boston, Massachusetts
March 30, 2012

Table of Contents

PLC SYSTEMS INC.
CONSOLIDATED BALANCE SHEETS
December 31, 2011 and 2010
(In thousands)

	2011	2010
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,585	$ 1,324
Accounts receivable, net of allowance of $2 and $10 at December 31, 2011 and 2010, respectively	453	121
Inventories	238	310
Prepaid expenses and other current assets	233	252
Assets from discontinued operations	—	1,095
Total current assets	3,509	3,102
Equipment, furniture and leasehold improvements, net	36	27
Other assets	4	186
Total assets	3,549	$ 3,315
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 149	$ 343
Accrued compensation	63	91
Accrued other	221	232
Deferred revenue	277	98
Liabilities from discontinued operations	—	1,117
Total current liabilities	710	1,881

Convertible notes	5,327	—
Warrant liabilities	1,600	—
Commitments and Contingencies (Note 7)		
Stockholders’ equity (deficit):		
Common stock, no par value, unlimited shares authorized, 30,351 shares issued and outstanding at December 31, 2011 and 2010	93,893	93,893
Additional paid in capital	996	848
Accumulated deficit	(98,727)	(92,969)
Accumulated other comprehensive loss	(250)	(338)
Total stockholders’ equity (deficit)	(4,088)	1,434
Total liabilities and stockholders’ equity (deficit)	$ 3,549	$ 3,315

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

Table of Contents

PLC SYSTEMS INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
For The Years Ended December 31, 2011 and 2010
(In thousands, except per share data)

	2011	2010
Revenues	$ 671	$ 587
Cost of revenues	426	656
Gross profit (loss)	245	(69)
Operating expenses:		
Selling, general and administrative	2,445	2,805
Research and development	1,212	333
Total operating expenses	3,657	3,138
Gain on the sale of assets	(40)	(98)
Loss from continuing operations	(3,372)	(3,109)
Other income (expense):		
Interest expense	(396)	—
Interest income	10	—
Financing costs associated with convertible notes	(530)	—
Change in fair value of warrant liabilities	(808)	—
Change in fair value of convertible notes	(1,894)	—
Total other expense	(3,618)	—
Net loss from continuing operations before income taxes	(6,990)	(3,109)
Benefit for income taxes from continuing operations	492	—
Net loss from continuing operations, net of income taxes	(6,498)	—
Discontinued operations:		
Income from discontinued operations, net of income taxes	53	2,604
Gain on sale of discontinued operations, net of provision for income taxes of $492	687	—
Net income from discontinued operations	740	2,604
Net loss	$ (5,758)	$ (505)
Net loss per weighted average share, basic and diluted:		
From loss on continuing operations attributable to common stockholders	$ (0.21)	$ (0.10)
From income on discontinued operations	0.00	0.08
From gain on sale of discontinued operations	0.02	0.00
Net loss attributable to common stockholders per weighted average share, basic and diluted	$ (0.19)	$ (0.02)
Weighted average shares outstanding:		
Basic and diluted	30,351	30,351

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

Table of Contents

PLC SYSTEMS INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY (DEFICIT)

For The Years Ended December 31, 2011 and 2010
(In thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance, December 31, 2009	30,351	$ 93,893	$ 627	$ (92,464)	$ (327)	$ 1,729
Stock based compensation	—	—	221	—	—	221
Comprehensive income:						
Net loss	—	—	—	(505)	—	(505)
Foreign currency translation, net	—	—	—	—	(11)	(11)
Total comprehensive loss						(516)
Balance, December 31, 2010	30,351	$ 93,893	$ 848	$ (92,969)	$ (338)	$ 1,434
Stock based compensation	—	—	148	—	—	148
Comprehensive income:						
Net loss	—	—	—	(5,758)	—	(5,758)
Foreign currency translation, net	—	—	—	—	88	88
Total comprehensive loss						(5,670)
Balance, December 31, 2011	30,351	$ 93,893	$ 996	$ (98,727)	$ (250)	$ (4,088)

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

Table of Contents

PLC SYSTEMS INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
For The Years Ended December 31, 2011 and 2010
(In thousands)

	2011	2010
Cash flows from operating activities:		
Net loss	$ (5,758)	$ (505)
Income from discontinued operations	(53)	(2,604)
Gain on sale of discontinued operations, net of taxes	(687)	—
Depreciation and amortization	9	42
Stock-based compensation expense	148	221
Change in fair value of warrant liabilities	808	—
Change in fair value of convertible notes	1,894	—
Financing costs associated with convertible notes	530	—
Non-cash interest expense	225	—
Deferred income taxes	(492)	—
Change in assets and liabilities:		
Accounts receivable	(321)	235
Inventory	72	(4)
Prepaid expenses and other assets	(116)	(102)
Other assets	182	—
Accounts payable	(194)	8
Deferred revenue	186	98
Accrued liabilities	(36)	(166)
Net cash flows used in operating activities	(3,603)	(2,777)
Cash flows from investing activities:		
Purchase of property and equipment	(18)	—
Net cash used for investing activities	(18)	—
Cash flows from financing activities:		
Net proceeds from issuance of convertible notes and warrants	3,605	—
Net cash provided by financing activities	3,605	—
Discontinued Operations:		
Net cash provided by operating activities	210	1,429
Net cash provided by investing activities	1,000	—
Net cash provided by discontinued operations	1,210	1,429

Effect of exchange rate changes on cash and cash equivalents	67	(14)
Net increase (decrease) in cash and cash equivalents	1,261	(1,362)
Cash and cash equivalents at beginning of period	1,324	2,686
Cash and cash equivalents at end of period	$ 2,585	$ 1,324
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 171	$ —
Supplemental disclosure of noncash investing and financing activities:		
Warrant liabilities	$ 792	$ —
Convertible Notes	$ 3,208	

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

PLC SYSTEMS INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2011

1. *Business and Liquidity*

PLC Systems Inc. ("PLC" or the "Company") is a medical device company specializing in innovative technologies for the cardiac and vascular markets. Over the past four years, the Company has begun initial commercialization outside the United States of its product, RenalGuard®, which currently represents the Company's key strategic growth initiative and primary business focus. The RenalGuard System consists of a proprietary console and accompanying single-use sets and is designed to reduce the potentially toxic effects that contrast media can have on the kidneys when it is administered to patients during certain medical imaging procedures. The Company conducts business operations as one operating segment.

For the year ended December 31, 2011, the Company incurred a net loss from continuing operations before taxes of approximately $6,990,000 and used cash in operations of approximately $3,603,000. As of December 31, 2011, cash and cash equivalents were $2,585,000. Management expects that quarterly losses and negative cash flows will continue during 2012. These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

Based upon the current financial condition of the Company and the expectation of continued quarterly losses during 2012, management is currently investigating ways to raise additional capital that can be completed in the next few months. Subsequent to December 31, 2011, the Company reported that it had engaged a financial advisor to assist the Company in this effort. The Company will continue to review its other expense areas to determine whether additional reductions in discretionary spending can be achieved.

The Company also believes that the recent publication of positive clinical results from two independent investigator-sponsored clinical trials in Italy, which show RenalGuard to be both a safe and effective product for the prevention of CIN in at-risk patients, presents a substantial opportunity for it to increase its sales and achieve profitable results in the next few years, provided the Company is able to raise the additional capital it needs in the near term to sustain its operations and expand its RenalGuard sales and marketing programs.

2. *Significant Accounting Policies*

Basis of Presentation

The consolidated financial statements include the accounts of PLC and its two wholly owned subsidiaries, PLC Medical Systems, Inc. and PLC Systemas Medicos Internacionais (Deutschland) GmbH. All intercompany accounts and transactions have been eliminated.

In the first quarter of 2011, the Company sold the assets related to its TMR business to Novadaq Corp., a subsidiary of Novadaq Technologies Inc., the Company's then exclusive distributor of TMR in the U.S., for $1,000,000 plus the relief of approximately $614,000 in service contract obligations (see Note 9), and issued $4,000,000 in secured convertible debt (see Note 10).

As a result of its sale in the first quarter of 2011, the operating results of the Company's TMR business, including those related to the prior periods, have been reclassified from continuing operations to discontinued operations in the accompanying consolidated financial statements (see Note 9).

Use of Estimates

The preparation of financial statements in accordance with generally accepted accounting principles requires the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates include revenue recognition, warranty,

Table of Contents

inventory valuation, accounts receivable, and convertible notes and warrant liabilities. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. Cash at December 31, 2011 and 2010, respectively, consisted of deposits held in bank checking accounts and overnight sweep to repurchase agreements.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk include cash, cash equivalents and accounts receivable. At times, the Company possesses cash balances above federally-insured limits. The Company believes it minimizes its exposure to potential concentrations of credit risk by placing its cash equivalents in high-quality financial instruments. At December 31, 2011 and 2010, the majority of the cash and cash equivalents balance was invested with a single financial institution.

Artech accounted for 46% and 27% of the Company's revenues for the years ended December 31, 2011and 2010, respectively. ACIST, the Company's distributor in France and Germany, accounted for 12% of the Company's revenues for the year ended December 31, 2011. At December 31, 2011, Artech and ACIST accounted for 85% and 13%, respectively of gross accounts receivable.

Concentration of Revenues

Approximately 82% and 57% of the Company's revenues for the years ended December 31, 2011 and 2010, respectively, were derived from the sales of RenalGuard.

Net sales to unaffiliated customers (by origin) are summarized below (in thousands):

	North America	Europe	Total
2011			
Net sales	$ 124	$ 547	$ 671
2010			
Net sales	$ 252	$ 335	$ 587

Accounts Receivable

Accounts receivable is stated at the amount the Company expects to collect from the outstanding balances. The Company continuously monitors collections from customers and maintains a provision for estimated credit losses based upon historical experience and any specific customer collection issues that the Company has identified. Historically, the Company has not experienced significant losses related to its accounts receivable. Collateral is generally not required. If the financial condition of its customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances could be required.

Inventories

Inventories are stated at the lower of cost (computed on a first-in, first-out method) or market value and include allocations of labor and overhead. The Company regularly reviews slow-moving and excess inventories, and writes down inventories to net realizable value if the ultimate expected proceeds from the disposals of excess inventory are less than the carrying cost of the inventory.

Table of Contents

Equipment, Furniture, Leasehold Improvements and Long-Lived Assets

Equipment, furniture and leasehold improvements are stated on the basis of cost. Depreciation is computed principally on the straight-line method for financial reporting purposes and on accelerated methods for income tax purposes.

Depreciation and amortization are based on the following useful lives:

Equipment	2-5 years
Office furniture and fixtures	5 years
Leasehold improvements	Shorter of life of lease or useful life

The carrying amount of long-lived assets is reviewed whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. When required, recoverability of these assets is measured by comparing the carrying amount of the asset to the future undiscounted cash flows the asset is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset. During the years ended December 31, 2011 and 2010, the Company did not recognize any asset impairment charges.

Warranty and Preventative Maintenance Costs

The Company evaluates the estimated future unrecoverable costs of warranty and preventative maintenance services for its installed base products on a quarterly basis and adjusts its warranty reserve accordingly. The Company considers all available evidence, including historical experience and information obtained from supplier audits. There was no reserve for warranty and preventative maintenance costs recorded at December 31, 2011 and 2010.

Valuation of Convertible Notes and Warrant Liabilities

The valuation of our convertible notes and our warrant liabilities as derivative instruments utilizes certain estimates and judgments that affect the fair value of the instruments. Fair values are estimated by utilizing valuation models that consider current and expected stock prices, volatility, dividends, forward yield curves and discount rates. Such amounts and the recognition of such amounts are subject to significant estimates that may change in the future.

Revenue Recognition

The Company recognizes revenue when the following basic revenue recognition criteria have been met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the price to the buyer is fixed or determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management's judgments regarding the fixed nature of the price to the buyer charged for products delivered or services rendered and collectability of the sales price. The Company assesses credit worthiness of customers based upon prior history with the customer and assessment of financial condition. The Company's shipping terms are customarily Free On Board ("FOB") shipping point.

The Company typically records all product revenue at the time of shipment if all other revenue recognition criteria are met.

Foreign Currency Translation

Assets and liabilities of the Company's foreign subsidiary are translated into U.S. dollars at end-of-period exchange rates, while income and expense items are translated at average rates of exchange prevailing during the year. Exchange gains and losses arising from translation are accumulated as a separate component of stockholders' equity. The Company records the impact from foreign currency transactions as a component of other income (expense).

Table of Contents

Income Taxes

The Company uses an asset and liability based approach in accounting for income taxes. Deferred income tax assets and liabilities are recognized for the future tax consequences attributed to differences between the financial statement and tax basis of existing assets and liabilities using enacted rates applicable to the periods in which the differences are expected to affect taxable income. A valuation allowance is established, when necessary, to reduce deferred tax assets to the amount estimated by us to be realizable.

Research and Development

Research and development costs are expensed as incurred. In November 2010, the Company received a grant in the amount of $244,000 from the Internal Revenue Service under the Qualifying Therapeutic Discovery Project (QTDP) Program. The Company recorded this grant amount as a reduction to research and development expenses in the accompanying consolidated statement of operations during 2010.

Loss Per Share

In 2011 and 2010, basic and diluted loss per share have been computed using only the weighted average number of common shares outstanding during the period without giving effect to any potential future issuances of common stock related to stock option programs and warrants, since their inclusion would be antidilutive.

For the years ended December 31, 2011 and 2010, 46,162,000 and 5,529,000 shares, respectively, attributable to outstanding warrants, convertible notes, and stock options were excluded from the calculation of diluted loss per share because the effect would have been antidilutive.

3. *Inventories*

Inventories consist of the following at December 31 (in thousands):

	2011	2010
Raw materials	$ 157	$ 130
Finished goods	81	180
	$ 238	$ 310

4. *Equipment, Furniture and Leasehold Improvements*

Equipment, furniture and leasehold improvements consist of the following at December 31 (in thousands):

	2011	2010
Equipment	$ 414	$ 399
Office furniture and fixtures	218	218
Leasehold improvements	4	349
	636	966
Less accumulated depreciation and amortization	600	939
	$ 36	$ 27

Depreciation expense was $9,400 and $42,000 for the years ended December 31, 2011 and 2010, respectively.

Table of Contents

5. *Stockholders' Equity*

The Company has unlimited authorized shares of preferred stock. The Board of Directors is authorized to fix designations, relative rights, preferences and limitations in the preferred stock at the time of issuance.

The Company has never declared nor paid dividends on any of its capital stock and does not expect to do so in the foreseeable future.

6. *Stock Based Compensation*

Stock Option Plans

In May 2005, the Company's shareholders approved the 2005 Stock Incentive Plan (the "2005 Plan"). Incentive stock options are issuable only to employees of the Company, while non-qualified stock options may be issued to non-employee directors, consultants and others, as well as to employees. Under the 2005 Plan, the per share exercise price of incentive stock options may not be less than the fair market value of the common stock on the date the option is granted. The 2005 Plan provides that the Company may not grant non-qualified stock options at an exercise price less than 85% of the fair market value of the Company's common stock.

The Company grants stock options to its non-employee directors. New non-employee directors receive an initial grant of an option to purchase shares of the Company's common stock that generally vest in quarterly installments over three years. Once the initial grant has fully vested, non-employee directors (other than the Chairman of the Board) receive an annual grant of an option to purchase additional shares of the Company's common stock that generally will vest in four equal quarterly installments. The Chairman of the Board receives an annual grant of an option to purchase 45,000 shares of the Company's common stock that generally vests in four equal quarterly installments. All such options have an exercise price equal to the fair market value of the Company's common stock on the date of grant.

As a result of employee terminations in 2010, options held by terminated employees to purchase a total of 1,233,000 shares of common stock with an exercise price of $0.24 per share were cancelled, but were replaced by the Company with new options, all of which immediately vested, to purchase 1,233,000 shares of common stock at an exercise price of $0.24 per share. The Company recorded an additional $72,000 in stock compensation expense related to these grants during the year ended December 31, 2010.

As a result of employee terminations in 2011, options held by terminated employees to purchase a total of 173,000 shares of common stock with an exercise price of $0.24 per share were cancelled, but were replaced by the Company with new options, all of which were immediately vested, to purchase 173,000 shares of common stock at an exercise price of $0.24 per share. The Company recorded an additional $2,000 in stock compensation expense related to these grants during the year ended December 31, 2011

During year ended December 31, 2011, the Company granted options to purchase 300,000 shares of the Company's common stock to non-employees that vested immediately, and granted options to purchase 350,000 shares of the Company's common stock to employees that vest ratably over a three year period.

During the year ended December 31, 2011, the Company granted options to purchase 565,000 shares of the Company's common stock to employees with performance-based vesting, and granted options to purchase 112,500 shares of the Company's common stock to non-employee directors which vest quarterly over one year. Management has determined that as of December 31, 2011 it is probable that the performance conditions associated with the performance based vesting will be met, however not within the one year vesting term as originally estimated. Therefore, the related expense is being recognized over the estimated extended service period.

Table of Contents

As of December 31, 2011, there were 664,068 shares of common stock available to be granted under the 2005 Plan.

The following is a summary of option activity under all plans (in thousands, except per option data):

	Number of Options	Weighted Average Exercise Price	Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding, December 31, 2010	5,310	$ 0.25		
Granted	1,545	0.22		
Exercised	—	—		
Forfeited	(71)	0.26		
Expired	(22)	1.66		
Cancelled	(1,233)	0.24		
Outstanding, December 31, 2010	5,529			
Granted	1,500	0.15		
Exercised	—	—		
Forfeited	(1,254)	0.23		
Expired	—	—		
Cancelled	(173)	0.24		
Outstanding, December 31, 2011	5,602	$ 0.21	3.37	—
Exercisable, December 31, 2011	3,975	$ 0.22	2.06	—

Stock-Based Compensation Expense

The Company recorded compensation expense of $148,000 and $221,000 in the years ended December 31, 2011 and 2010, respectively. As of December 31, 2011, the Company had $72,150 of total unrecognized compensation cost related to its unvested options, which is expected to be recognized over a weighted average period of 1.02 years.

The weighted average fair value of options issued during the years ended December 31, 2011 and 2010 was estimated using the Black-Scholes model and was $0.10 and $0.08 respectively.

	Year Ended December 31, 2011	Year Ended December 31, 2010
Expected life (years)	1.00 – 6.00	1.00 – 6.00
Interest rate	0.27 – 2.65%	0.26 – 2.27%
Volatility	107.2 – 169.0%	85.6 – 292.8%
Expected dividend yield	None	None
Value of option granted	$0.01 – 0.13	$0.02 – 0.14

The expected life was calculated in 2011 and 2010 using the simplified method. The risk-free interest rate is based upon the U.S. Treasury yield curve in effect at the time of the grant for the expected term. Expected volatility is based exclusively on historical volatility data of the Company's common stock. The Company estimates an expected forfeiture rate by analyzing historical forfeiture activity and considering how future forfeitures are expected to differ from historical forfeitures. The Company expects that all outstanding options at

December 31, 2011 will fully vest over their requisite service period. Actual results, and future changes in estimates, may differ substantially from the Company's current estimates.

Table of Contents

Stock Purchase Plan

The Company has a 2000 Employee Stock Purchase Plan (the "Purchase Plan") for all eligible employees whereby shares of the Company's common stock may be purchased at six-month intervals at 95% of the average of the closing bid and ask prices of the Company's common stock on the last business day of the relevant plan period. Employees may purchase shares having a value not exceeding 10% of their gross compensation during an offering period, subject to certain additional limitations. There was no activity in 2011 or 2010. At December 31, 2011, 294,461 shares were reserved for future issuance under the Purchase Plan.

7. *Commitments*

Lease Commitments

The Company leases its corporate office under an operating lease agreement that expires in August 2014. In addition to the minimum lease payments, the agreement requires payment of the Company's pro-rata share of property taxes and building operating expenses.

As of December 31, 2011, future minimum lease payments are estimated to be as follows (in thousands):

Year	Future Minimum Lease Payments
2012	$ 38
2013	41
2014	30
Total	$ 109

Total rent expense was $148,000 and $204,000 in 2011 and 2010, respectively.

The Company manufactures its RenalGuard consoles and sterile disposable kits using two separate outside contract manufacturers. The contracts with these manufacturers do not contain minimum purchase requirements or any future commitments. Purchases are made upon request to the manufacturer.

During the year ended December 31, 2011, the Company hired a clinical research organization ("CRO") to assist with managing its clinical trial. The contract with the CRO does not contain minimum purchase requirements or any future commitments, and payments are made once services are provided.

8. *Sale of Assets*

In May 2010, the Company sold to a newly-formed corporation affiliated with its principal OEM customer certain of its OEM surgical tube assets, comprised principally of inventory, equipment, intellectual property and certain other intangible assets, as well as all necessary manufacturing documentation needed to perform contract assembly services for general purpose CO2 lasers. The total sale price for these assets was $225,000, of which approximately $154,000 was paid at the time of closing, with the balance in a note receivable totaling $71,000. At the closing of the transaction and as of December 31, 2010, the note receivable was fully reserved. Following the sale, Dr. Robert I. Rudko, who was a director and a stockholder of the Company at the time, acquired a minority interest in the corporation that purchased the OEM assets. In conjunction with this transaction, in the year ended December 31, 2010, the Company recorded an initial gain on sale of assets of $98,000. In March 2011, Dr. Rudko resigned from the Company's board of directors. Also in March 2011, the Company reached an agreement with the acquiring company to settle the note receivable at a reduced amount of $40,000. This amount was collected in April 2011, and was recorded as a gain when the cash was received.

9. *Discontinued Operations*

On November 5, 2010, the Company entered into an agreement to sell its TMR business to Novadaq. This transaction was approved by the Company's shareholders at a special meeting on January 31, 2011 and the transaction closed on February 1, 2011.

Under terms of the agreement, Novadaq acquired substantially all of the Company's assets that were used in the TMR business including all manufacturing rights, substantially all product inventories, and all equipment, intellectual property, regulatory approvals, clinical data and documentation related to TMR, for a purchase price of $1 million in cash and the assumption of all the Company's obligations under service contracts as of the closing

Table of Contents

date totaling $614,000. The total carrying value of the assets sold as of the transaction date was $385,000. In addition, the Company incurred transaction costs of $50,000. The Company has recorded a gain on sale of discontinued operations before income taxes of $1,179,000 in the statement of operations.

The operating results of these operations, including those related to the prior periods, have been reclassified from continuing operations to discontinued operations in the accompanying consolidated financial statements.

Revenues and net income attributable to discontinued operations for the years ended December 31, 2011 and 2010 are as follows:

	Year ended December 31 (In thousands) 2011	2010
Revenues:		
Product sales	$ 455	$ 2,219
Service fees	68	1,104
Total	523	3,323
Income from discontinued operations	$ 53	$ 2,604

A summary of discontinued operations on the consolidated balance sheets at December 31, 2011 and 2010 are as follows:

	December 31, 2011	December 31, 2010
	(In thousands)	
Current assets:		
Accounts receivable, net	$ —	$ 217
Inventory	—	526
Prepaid expenses and other current assets	—	352
	$ —	$ 1,095
Current liabilities:		
Accounts payable	—	$ 30
Accrued compensation	—	27
Accrued expenses	—	50
Deferred revenue	—	1,010
	$ —	$ 1,117

10. ***Convertible Notes and Warrant Liabilities***

Features of the Convertible Notes and Investor Warrants

On February 22, 2011 (the "Original Issue Date"), the Company entered into a Securities Purchase Agreement ("Purchase Agreement") and a 5% Senior Secured Convertible Debenture Agreement (the "Note Agreement") with GCP IV LLC (the "Investors" or "Holders") pursuant to which the Company agreed to issue and sell in a private placement to the Investors an aggregate principal amount of $4,000,000 of convertible notes due February 22, 2014 (the "Convertible Notes") and 40,000,000 warrants, which expire February 22, 2016 (the "Investor Warrants"). Under the terms of the Securities Purchase Agreement, the Company had the opportunity to raise up to an additional $2 million from the Holders of the Convertible Notes in two separate $1 million tranches, based upon meeting certain operational milestones within certain periods of time. The deadline for achieving the operational milestones for the first $1 million tranche expired in February 2012 without our achieving such milestones. The second $1 million tranche remains available to the Company upon achievement of the applicable operational milestones at any time prior to February 22, 2014.

Table of Contents

Convertible Notes

The Convertible Notes require payment of interest on the outstanding principal amount, in cash, at the rate of 5% per annum, payable quarterly on January 1, April 1, July 1, and October 1, beginning on the first such date following the Original Issue Date, on each conversion date (for the principal amount then being converted), on each optional redemption date (for the principal amount then being redeemed) and on the maturity date. Interest is calculated on the basis of a 360-day year and accrues daily commencing on the Original Issue Date until payment in full of the outstanding principal, together with all accrued and unpaid interest, liquidated damages and other amounts that may become due in connection with the Convertible Notes, has been made.

The Holders may convert the outstanding principal amount of the Convertible Notes into shares of the Company's common stock at the conversion price of $0.10 per share ("Conversion Price"). The Conversion Price is subject to adjustment in the event of (a) stock splits, stock dividends, combinations, reclassifications, mergers, consolidations, distributions of assets or evidence of indebtedness, sales or transfers of substantially all assets, share exchanges or similar events, and (b) dilutive issuances of (i) common stock or (ii) common stock equivalents at an effective price per share that is lower than the then Conversion Price.

At any time after February 2012, and upon entering into a change of control transaction or Fundamental Transaction, as defined in the Debenture Agreement, the Company may deliver a notice to the Holders of its irrevocable election to redeem all of the then outstanding principal of the Convertible Notes for cash in an amount equal to the sum of (a) the greater of (i) the outstanding amount of the Convertible Notes divided by the Conversion Price on the date of the mandatory default amount, as defined in the Purchase Agreement, is either (A) demanded or (B) paid in full, whichever has a lower conversion price, multiplied by the Volume Weighted Average Price ("VWAP") of the date of the mandatory default amount is either (x) demanded or otherwise due or (y) paid in full, whichever has higher VWAP, plus all accrued and unpaid interest, or (ii) 130% of the outstanding principal amount of the Notes, plus 100% of accrued and unpaid interest, and (b) all other amounts, costs, expenses and liquidated damages due under the various agreements covering issuance of the Convertible Notes. Such amount would include the liquidated damages due under the default provision of the Purchase Agreement.

The Company is required to repay, in cash, any outstanding principal amount of the Convertible Notes on February 22, 2014 and is not permitted, except upon entering into a change of control transaction or fundamental transaction as noted above, to prepay any portion of the principal amount without prior written consent of the Holders.

Investor Warrants

On February 22, 2011, in connection with the issuance of the Convertible Notes, the Company issued warrants for the purchase of up to 40,000,000 shares of common stock at the exercise price of $0.15 per share and with an expiration date of February 22, 2016 (the "Warrants"). The following is a summary of the Warrants outstanding as of December 31, 2011:

	Warrants	Exercise Price
Beginning balance - February 22, 2011	40,000,000	$ 0.15
Add: Adjustments (pursuant to warrants agreement)	0	n/a
Less: Exercised	0	n/a
Ending balance	40,000,000	$ 0.15

The Warrants are exercisable in cash to purchase shares of the Company's common stock (the "Warrant Shares"). The Exercise Price may be paid pursuant to a cashless exercise provision if the Warrant Shares have not been registered within six months after the Warrants are issued. The Exercise Price of the Warrants shall be adjusted in the event of (a) stock splits, stock dividends, combinations, reclassifications, mergers, consolidations, distributions of assets or evidence of indebtedness, sales or transfers of substantially all assets, share exchanges or similar events, and (b) dilutive issuances of (i) common stock or (ii) common stock equivalents at an effective price per share that is lower than the then Exercise Price.

In connection with a Fundamental Transaction, as defined in the Purchase Agreement, that is an all-cash transaction, the Company shall have the right to purchase from the Holders all, but not less than all, of the unexercised portion of the Warrants by paying in cash to the Holders an amount equal to 30% of the Exercise Price multiplied by the number of shares of Common Stock for which the Warrants are exercisable immediately prior to such change of control transaction.

Fair Value Measurements

The Company measures and reports fair value in accordance with Accounting Standards Codifications ("ASC") 820 — *Fair Value Measurements and Disclosures* (ASC 820). ASC 820 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles and expands disclosures about fair value investments.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of an asset should reflect its highest and best use by market participants, principal (or most advantageous) markets, and an in-use or an in-exchange valuation premise. The fair value of a liability should reflect the risk of nonperformance, which includes, among other things, the Company's credit risk.

Valuation techniques are generally classified into three categories: the market approach; the income approach; and the cost approach.

The selection and application of one or more of the techniques may require significant judgment and are primarily dependent upon the characteristics of the asset or liability, and the quality and availability of inputs. Valuation techniques used to measure fair value under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs. ASC 820 also provides fair value hierarchy for inputs and resulting measurement as follows:

Level 1

Quoted prices (unadjusted) in active markets that are accessible at the measurement date for identical assets or liabilities;

Level 2

Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability; and inputs that are derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3

Unobservable inputs for the asset or liability that are supported by little or no market activity and that are significant to the fair values.

Fair value measurements are required to be disclosed by the Level within the fair value hierarchy in which the fair value measurements in their entirety fall. Fair value measurements using significant unobservable inputs (in Level 3 measurements) are subject to expanded disclosure requirements including a reconciliation of the beginning and ending balances, separately presenting changes during the period attributable to the following: (i) total gains or losses for the period (realized and unrealized), segregating those gains or losses included in earnings, and a description of where those gains or losses included in earning are reported in the statement of income.

The following summarizes the Company's assets and liabilities measured at fair value as of December 31, 2011:

Table of Contents

		Fair Value Measurements at Reporting Date Using:		
Description	**Balance as of December 31, 2011**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Liabilities				
Convertible notes	$ 5,327,000	$ —	$ —	$ 5,327,000
Warrant liabilities	$ 1,600,000	$ —	$ —	$ 1,600,000
Total Liabilities	$ 6,927,000	$ —	$ —	$ 6,927,000

Accounting for the Convertible Notes and Investor Warrants

Investor Warrants

In June 2008, the FASB issued ASC 815-40-15 (formerly EITF 07-5, *Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock*), which was effective for the Company in 2009. This issued guidance requires that derivative instruments be evaluated for certain contingencies and anti-dilution provisions that would affect their equity classification as a derivative under ASC 815, *Derivatives and Hedging* (ASC 815) and requires the instruments to be classified as liabilities and reported at fair value.

Upon issuance, the Investor Warrants were not considered indexed to the Company's own stock and therefore are required to be accounted for as freestanding derivative instruments and classified as a liability. As a result, the Investor Warrants are recorded as a liability at fair value as of February 22, 2011 and December 31, 2011 with subsequent changes in fair value recorded in the consolidated statement of operations.

Convertible Notes

The Company has determined that the Convertible Notes constitute a hybrid instrument that has the characteristics of a debt host contract containing several embedded derivative features that would require bifurcation and separate accounting as a derivative instrument pursuant to the provisions of ASC 815. The Company has identified all of the derivatives associated with the February 22, 2011 financing.

As permitted under ASC 825-10-10 — *Financial Instruments*, as it relates to the fair value option, the Company has elected, as of February 22, 2011, to measure the Convertible Notes in their entirety at fair value with changes in fair value recognized in the Consolidated Statement of Operations as either a gain or loss until the notes are settled. As such, the Company has appropriately valued the embedded derivatives as a single hybrid contract together with the Convertible Notes. This election was made by the Company after determining the aggregate fair value of the Convertible Notes to be more meaningful in the context of the Company's financial statements than if separate fair values were assigned to each of the multiple embedded instruments contained in the Convertible Notes.

Upon issuance of the Convertible Notes, the Company allocated the proceeds received to the Convertible Notes and Investor Warrants on a relative fair value basis. As a result of such allocation, the Company determined the initial carrying value of the Notes to be $3,208,000. The Notes were immediately marked to fair value, resulting in a derivative liability in the amount of $3,677,000 million. As of December 31, 2011, the Convertible Notes have been marked to fair value resulting in a derivative liability of $5,327,000. The net charge to other income (expense) was expense of $1,895,000 in the year ended December 31, 2011. The debt discount in the amount of $792,000 (resulting from the allocation of proceeds) is being amortized to interest expense using the effective interest method over the expected term of the Convertible Notes. The Company amortized $225,000 in the year ended December 31, 2011, which is a component of interest expense.

Table of Contents

Upon issuance, the Company allocated $792,000 of the initial proceeds to the Investor Warrants and immediately marked them to fair value resulting in a derivative liability of $908,000. As of December 31, 2011, the Investor Warrants have been marked to fair value resulting in a derivative liability of $1,600,000. The charge to other income (expense) for the year ended December 31, 2011 was expense of $808,000.

A summary of changes in the Convertible Notes and Investor Warrants is as follows:

	Fair Value of Convertible Notes	Fair Value of Warrant Liabilities	Total
Allocation of initial proceeds	$ 3,208,000	$ 792,000	$ 4,000,000
Initial fair value adjustment	$ 469,000	$ 116,000	$ 585,000
February 22, 2011	$ 3,677,000	$ 908,000	$ 4,585,000
Amortization of debt discount	$ 225,000	$ —	$ 225,000
Fair value adjustment	$ 1,425,000	$ 692,000	$ 2,117,000
Balance December 31, 2011	$ 5,327,000	$ 1,600,000	$ 6,927,000

The Company records the fair value of Convertible Notes and Investor Warrants as a long term liability.

Financing Costs

Financing costs include costs associated with obtaining the February 22, 2011 financing. Financing costs totaling $530,000 have been recorded in other income (expense) in the year ended December 31, 2011, $135,000 of which were recorded in prepaid expenses and other current assets at December 31, 2010 and expensed upon closing of the transaction in February 2011.

Valuation — Methodology and Significant Inputs Assumptions

Fair values for the Company's derivatives and financial instruments are estimated by utilizing valuation models that consider current and expected stock prices, volatility, dividends, market interest rates, forward yield curves and discount rates. Such amounts and the recognition of such amounts are subject to significant estimates that may change in the future. The methods and significant inputs and assumptions utilized in estimating the fair value of the Warrant Liabilities and Convertible Notes are discussed below. Each of the measurements is considered a Level 3 measurement as a result of at least one significant unobservable input.

Warrant Liabilities

A Black-Scholes-Merton option-pricing model, with dilution effects, was utilized to estimate the fair value of the Warrant Liabilities as of February 22, 2011 and December 31, 2011. This model is widely used in estimating value of European options dependent upon a non-paying dividend stock and fixed inputs. This model is subject to the significant assumptions discussed below and requires the following key inputs with respect to the Company and/or instrument:

Input	February 22, 2011	December 31, 2011
Stock Price	$ 0.0755	$ 0.1075
Exercise Price	$ 0.15	$ 0.15
Expected Life (in years)	5.00	4.15
Stock Volatility	90%	95%
Risk-Free Rate	2.16%	0.63%

Dividend Rate	0%	0%
Outstanding Shares of Common Stock	30,351,092	30,351,092

Table of Contents

Convertible Notes

A binomial lattice model was utilized to estimate the fair value of the Convertible Notes as of February 22, 2011 and December 31, 2011. The binomial model considers the key features of the Convertible Notes, as noted above, and is subject to the significant assumptions discussed below. First, a discrete simulation of the Company's stock price, without effects of dilution due to the conversion feature, was conducted at each node and throughout the expected life of the instrument. Second, a discrete simulation of the Company's stock price, with effects of dilution due to the conversion feature, was conducted at each node and throughout the expected life of the instrument. Third, based upon the simulated stock price with dilution effect, an analysis of the higher position of a conversion position, redemption position, or holding position (i.e. fair value of the respective future nodes value discounted using the applicable discount rate) was conducted relative to each node until a final fair value of the instrument is conducted at the node representing the measurement date. This model requires the following key inputs with respect to the Company and/or instrument:

Input	February 22, 2011	December 31, 2011
Stock Price	$ 0.0755	$ 0.1075
Strike Price	$ 0.10	$ 0.10
Expected remaining term (in years)	3.00	2.15
Stock Volatility	95%	100%
Risk-Free Rate	1.22%	0.27%
Dividend Rate	0%	0%
Outstanding Shares of Common Stock	30,351,092	30,351,092
Effective discount rate	20.3%	13.2%
Probability of forced redemption	20%	20%

The following are significant assumptions utilized in developing the inputs:

- The Company's common stock shares are traded on the OTC Bulletin Board and, accordingly, the stock price input is based upon bid prices as of the valuation dates due to the extremely thin trading volume, broker-driven market (vs. exchange market) and the wide bid/ask spread as of the valuation date;

- The expected future stock prices of the Company's stock were modeled to include the effect of dilution upon conversion of the instruments to shares of common stock;

- Stock volatility was estimated by considering (i) the annualized monthly volatility of the Company's stock price during the historical period preceding the respective valuation dates and measured over a period corresponding to the remaining life of the instruments (monthly data set is more relevant given the extremely thin trading volume of the Company's common stock) and (ii) the annualized daily volatility of comparable companies' stock price during the historical period preceding the respective valuation dates and measured over a period corresponding to the remaining life of the instrument. Historic prices of the Company and comparable companies' common stock were used to estimate volatility as the Company did not have traded options as of the valuation dates;

- Based upon the Company's historical operations and management's expectations for the foreseeable future, the Company's stock was assumed to be a non-dividend-paying stock;

- The risk-free interest rate is based on the U.S. Treasury Yield curve in effect as of the valuation date for the expected term;

- With respect to the Convertible Notes, the Company is expected to pay all accrued interest due to the Holders on each Interest Payment Date;

- With respect to the Convertible Notes, based upon management's expectations for a change of control or fundamental transaction to occur prior to the maturity date of the Convertible Notes, a low

Table of Contents

probability of a forced redemption;

- Upon a change of control redemption, the change of control redemption amount shall equal to the sum of:

I. the greater of:

(i) the outstanding amount of the debt divided by the Conversion Price on the date of the mandatory default amount is either (A) demanded or (B) paid in full, whichever has a lower conversion price, multiplied by the VWAP of the date of the mandatory default amount is either (x) demanded or otherwise due or (y) paid in full, whichever has higher VWAP, plus all accrued and unpaid interest, or

(ii) 130% of the outstanding principal amount of the debt, plus 100% of accrued and unpaid interest, and

II. all other amounts, costs, expenses and liquidated damages due under the various agreements covering issuance of the debt.

Additionally, it is assumed that no amounts are due pursuant to clause (II) above in any period and that the stock price at each respective node represents a reasonable approximation of the VWAP requirements.

The changes in fair value between reporting periods are related to the changes in the price of the Company's common stock as of the measurement dates, the volatility of the Company's common stock during the remaining term of the instrument, changes in the conversion price and effective discount rate.

11. Income Taxes

The provision for income taxes consists of the following (in thousands):

	Year Ended December 31, 2011	2010
Loss before income taxes:		
Continuing operations		
United States	$ (6,859)	$ (2,656)
Foreign	(131)	(453)
	$ (6,990)	(3,109)
Current income tax benefit from continuing operations:		
Federal	$ 492	$ —
Foreign	—	—
State	—	—
	$ 492	$ —
Deferred income tax benefit/(provision) from continuing operations:		
Federal	$ 3,335	(58)
Foreign	(2)	50
State	(4,415)	(52)
	(1,082)	(60)
Change in valuation allowance	1,082	60
	$ 0	$ 0
Benefit for income taxes from continuing operations	$ 492	$ —
Provision for income taxes from gain on sale of discontinued operations	(492)	—
Total provision for income taxes	$ —	$ —

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets as of December 31 are as follows (in thousands):

	2011	2010
Net federal and state operating loss carryforwards	$ 23,611	$ 23,848
Net foreign operating loss carryforwards	484	486
Accrued expenses and reserves	10	592
Tax credits	1,202	1,245
Other	348	566
Total deferred tax assets	25,655	26,737
Valuation allowance	(25,655)	(26,737)
Net deferred tax assets	$ —	$ —

The valuation allowance decreased by $1,082,000 in 2011 primarily due to the use of the Company's net operating loss carryforwards against the gain on sale of discontinued operations, offset in part by the Company's net loss. The Company recorded the valuation allowance due to the uncertainty of the realizability of the related net deferred tax asset.

Table of Contents

Total provision for income taxes computed at the federal statutory rate differs from amounts provided as follows (in thousands):

	2011	2010
Tax benefit at federal statutory rate	$ (1,893)	$ (172)
State income taxes, net of U.S. federal income tax benefit	(331)	(30)
Permanent differences	44	57
Other	3,262	—
Change in valuation allowance	(1,082)	145
Total expense	$ —	$ —

At December 31, 2011, the Company had federal net operating loss carryforwards available to reduce future taxable income of approximately $66,200,000, which expire at various dates through 2030. At December 31, 2011, the Company had federal and state research and development credit carryforwards of $718,000 and $483,000, respectively, which will expire at various dates through 2030 for federal income tax purposes and through 2025 for state income tax purposes. In addition, at December 31, 2011 the Company had foreign net operating loss carryforwards of approximately $1,213,000

Under the Internal Revenue Code of 1986, as amended, certain substantial changes in the Company's ownership may limit the amount of net operating loss carryforwards that can be utilized in any one year to offset future taxable income. Any carryforwards that will expire prior to utilization as the result of any limitations will be removed from deferred tax assets with a corresponding reduction of the valuation allowance. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact its effective tax rate.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities. As of December 31, 2011 and 2010, there were no unrecognized tax benefits. The Company's policy is to record estimated interest and penalties related to the underpayment of income taxes as a component of its income tax provision. As of December 31, 2011 and 2010, the Company had no accrued interest or tax penalties recorded.

The Company files income tax returns in the U.S. federal jurisdiction and in several state and foreign jurisdictions. For U.S. federal and state tax purposes, the tax years 2007 through 2011 remain open to examination. In addition, the amount of the Company's federal and state net operating loss carryforwards may be subject to examination and adjustment. The open examination periods for the Company's foreign jurisdictions range from 2000 through 2009.

12. Subsequent Events

The Company has evaluated all events or transactions through the date of this filing. During this period the Company did not have any material subsequent events that impacted its consolidated financial statements or disclosures.

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements on Form S-8 (File Nos. 333-51547, 333-37814, 333-48706, 333-51136, 333-57752, 333-91430, 333-106100, 333-127770 and 333-153535) of PLC Systems Inc. and subsidiaries of our report (which includes an emphasis paragraph relating to an uncertainty as to the Company's ability to continue as a going concern) dated March 30, 2012, relating to our audits of the consolidated financial statements as of and for the years ending December 31, 2011 and 2010, which appear in this Amendment No. 1 to the Annual Report on Form 10-K of PLC Systems Inc. and subsidiaries for the year ended December 31, 2011.

/s/ McGladrey LLP

Boston, Massachusetts
November 15, 2012

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark R. Tauscher, certify that:

1. I have reviewed this annual report on Form 10-K/A of PLC Systems Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: November 15, 2012

/s/ Mark R. Tauscher
Mark R. Tauscher
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory W. Mann, certify that:

1. I have reviewed this annual report on Form 10-K/A of PLC Systems Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: November 15, 2012

/s/ Gregory W. Mann
Gregory W. Mann
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

CERTIFICATIONS PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report on Form 10-K/A of PLC Systems Inc. (the "Company") for the period ended December 31, 2011 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Mark R. Tauscher, President and Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that, to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 15, 2012

By: /s/ Mark R. Tauscher
Mark R. Tauscher
President and Chief Executive Officer
(Principal Executive Officer)

In connection with the annual report on Form 10-K/A of PLC Systems Inc. (the "Company") for the period ended December 31, 2011 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Gregory W. Mann, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that, to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 15, 2012

By: /s/ Gregory W. Mann
Gregory W. Mann
Chief Financial Officer
(Principal Financial Officer)

November 15, 2012

Securities and Exchange Commission
100 F Street, North East
Washington, DC 20549-3030
Attention: Eric Atallah and Lynn Dicker

Re: PLC Systems Inc.
Form 10-K for the year ended December 31, 2011
Filed March 30, 2012
File No. 001-11388

Ladies and Gentlemen:

On behalf of PLC Systems Inc. ("PLC" or the "Company"), we are submitting this letter in response to your comment letter dated November 2, 2012 with respect to PLC's Annual Report on Form 10-K for the year ended December 31, 2011 (the "10-K"), which is referenced above. Filed herewith via EDGAR is Amendment No. 1 to 10-K (the "10-K/A").

The responses and supplementary information set forth below have been organized in the same manner in which the Staff's comments were organized and all page references in the Company's responses are to the Form 10-K/A.

Report of Independent Registered Public Accounting Firm, page F-2

1. We note that the report of your Independent Registered Accounting Firm is dated March 30, 2011, although the report on the financial statements is for the year ended December 31, 2011. Please amend your Form 10-K to provide a properly dated report from your Independent Registered Accounting Firm.

RESPONSE: The Form 10-K/A now includes a corrected report of McGladrey & Pullen, LLP (now McGladrey LLP), the Independent Registered Accounting Firm, dated March 30, 2012. The Report is included on Page F-2 of the Form 10-K/A. In addition, the Form 10-K/A also includes the following Exhibits:

23.1 Consent of McGladrey, LLP
31.1 Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2 Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1 Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Please direct any general questions or comments concerning this letter, and any requests for additional information, to the undersigned at (781) 719-9803. Thank you.

Sincerely yours,

/s/ Neil H. Aronson

Neil H. Aronson

c: Mark R. Tauscher, President
Gregory W. Mann, Chief Financial Officer
McGladrey LLP

cc: