

Edgar Filing: SPIRE CORP - Form 10QSB

SPIRE CORP  
Form 10QSB  
November 14, 2006

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-QSB

- Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the quarterly period ended September 30, 2006; 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: 0-12742

SPIRE CORPORATION

-----  
(Name of small business issuer as specified in its charter)

MASSACHUSETTS

04-2457335

-----  
(State or other jurisdiction of incorporation or organization)

-----  
(I.R.S. Employer Identification Number)

ONE PATRIOTS PARK  
BEDFORD, MASSACHUSETTS 01730-2396

-----  
(Address of principal executive offices)

781-275-6000

-----  
(Issuer's telephone number)

Check whether the issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 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

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

State the number of shares outstanding of each of the issuer's classes of common equity, as of the latest practicable date. There were 8,219,163 outstanding shares of the issuer's only class of common equity, Common Stock, \$0.01 par value, on November 2, 2006.

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

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PART I  
FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

SPIRE CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED BALANCE SHEET  
(UNAUDITED)

ASSETS

Current assets  
Cash and cash equivalents  
Restricted cash

Short-term investments  
Accounts receivable - trade, net  
Inventories, net

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Prepaid expenses and other current assets

Total current assets

Net property and equipment

Intangible and other assets (less accumulated amortization of \$761,936)

Available-for-sale investments at quoted market value (cost of \$1,271,934)

Restricted cash - long-term

Deposit - related party

Total assets

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities

-----

Current portion of capital lease obligation - related party

Accounts payable

Accrued liabilities

Advances on contracts in progress

Total current liabilities

Long-term portion of capital lease obligation - related party

Long-term portion of advances on contracts in progress

Deferred compensation

Deferred taxes

Total long-term liabilities

Total liabilities

Commitments and Contingencies:

-----

Stockholders' equity

-----

Common stock, \$0.01 par value; 20,000,000 shares authorized; 8,217,913 shares issued and outstanding

Additional paid-in capital

Accumulated deficit

Accumulated other comprehensive income

Total stockholders' equity

Total liabilities and stockholders' equity

SEE ACCOMPANYING NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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SPIRE CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS  
(UNAUDITED)

THREE MONTHS ENDED SEPTEMBER 30,

NINE MONTHS ENDED SEPTEMBER 30,

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|  | 2006           | 2005           | 2006           |    |
|--|----------------|----------------|----------------|----|
| Net sales and revenues   |                |                |                |    |
| Contract research, service and license revenues                                    | \$ 2,764,354   | \$ 3,172,940   | \$ 7,877,340   | \$ |
| Sales of goods   | 3,029,374      | 1,309,160      | 7,184,620      |    |
| Total net sales and revenues   | 5,793,728      | 4,482,100      | \$ 15,061,960  | 1  |
| Costs and expenses   |                |                |                |    |
| Cost of contract research, services and licenses                                   | 2,119,943      | 2,359,714      | 6,624,524      |    |
| Cost of goods sold   | 2,984,528      | 1,268,977      | 6,678,521      |    |
| Selling, general and administrative expenses                                       | 2,495,888      | 2,400,309      | 7,306,120      |    |
| Internal research and development expenses   | 193,989        | 411,749        | 547,243        |    |
| Total costs and expenses   | 7,794,348      | 6,440,749      | 21,156,408     | 2  |
| Gain on extinguishment of purchase commitment                                      | --             | 593,313        | --             |    |
| Gain on sale of licenses   | --             | --             | --             |    |
| Income (loss) from operations  | (2,000,620)    | (1,365,336)    | (6,094,448)    |    |
| Other income (expense), net  | 60,043         | (63,287)       | 68,787         |    |
| Income (loss) before income taxes  | (1,940,577)    | (1,428,623)    | (6,025,661)    |    |
| Income tax expense (benefit)   | --             | --             | --             |    |
| Net income (loss)  | \$ (1,940,577) | \$ (1,428,623) | \$ (6,025,661) | \$ |
| Earnings (loss) per share of common stock - basic                                  | \$ (0.24)      | \$ (0.20)      | \$ (0.77)      | \$ |
| Earnings (loss) per share of common stock - diluted                                | \$ (0.24)      | \$ (0.20)      | \$ (0.77)      | \$ |
| Weighted average number of common and common equivalent shares outstanding - basic | 8,213,726      | 6,983,556      | 7,788,656      |    |
| Weighted average number of common and common equivalent shares                     |                |                |                |    |

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|                       |           |           |           |
|-----------------------|-----------|-----------|-----------|
| outstanding - diluted | 8,213,726 | 6,983,556 | 7,788,656 |
|                       | =====     | =====     | =====     |

See accompanying notes to unaudited condensed consolidated financial statements.

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SPIRE CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(UNAUDITED)

|  |        |
|--|--------|
|  | NINE   |
|  | -----  |
|  | 2      |
|  | -----  |
| Cash flows from operating activities:  |        |
| -----  |        |
| Net income (loss)  | \$ (6, |
| Adjustments to reconcile net income (loss) to net cash used in operating activities: |        |
| Depreciation and amortization  | 1,     |
| Loss on buy-out of capital lease   |        |
| Gain on sale of licenses   |        |
| Gain on extinguishment of purchase commitment  |        |
| Deferred compensation  |        |
| Unearned purchase discount   |        |
| Stock-based compensation   |        |
| Increase in accounts receivable reserves   |        |
| Changes in assets and liabilities:   |        |
| Restricted cash  |        |
| Accounts receivable  |        |
| Interest receivable  |        |
| Inventories  | (      |
| Prepaid expenses and other current assets  | (1,    |
| Accounts payable and accrued liabilities   |        |
| Deposit - related party  |        |
| Advances on contracts in progress  | 4,     |
|  | -----  |
| Net cash used in operating activities  | (      |
|  | -----  |
| Cash flows from investing activities:  |        |
| -----  |        |
| Purchase of short-term investments   | (7,    |
| Sale of short-term investments   | 2,     |
| Proceeds from sale of licenses   |        |
| Payment to extinguish purchase commitment  |        |
| Additions to property and equipment  | (1,    |
| Restricted cash - long term  |        |
| Increase in intangible and other assets  | (      |
|  | -----  |
| Net cash provided by (used in) investing activities                                  | (6,    |
|  | -----  |
|  | 7,     |
| Cash flows from financing activities:  |        |
| -----  |        |
| Proceeds from issuance of common stock, net of offering costs                        |        |
| Principal payment and buy-out of capital lease obligations                           | (      |
| Principal payment on capital lease obligations - related parties                     | (      |
| Proceeds from exercise of stock options  |        |

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|  |       |
|--|-------|
| Net cash provided by financing activities            | 6,    |
| Net increase (decrease) in cash and cash equivalents | 2,    |
| Cash and cash equivalents, beginning of period       | 3,    |
| Cash and cash equivalents, end of period             | \$ 3, |
| <hr/>  |       |
| Supplemental disclosures of cash flow information:   |       |
| <hr/>  |       |
| Cash paid (received) during the period for:          |       |
| Interest   | \$    |
| Interest - related party                             | \$    |
| Income taxes   | \$    |

See accompanying notes to unaudited condensed consolidated financial statements.

SPIRE CORPORATION AND SUBSIDIARIES  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
(UNAUDITED)

September 30, 2006

1. DESCRIPTION OF THE BUSINESS

Spire Corporation (the "Company") develops, manufactures and markets highly-engineered products and services in four principal business areas: solar equipment, solar systems, biomedical and optoelectronics, bringing to bear expertise in materials technologies across all four business areas.

In the solar equipment area, the Company develops, manufactures and markets specialized equipment for the production of terrestrial photovoltaic modules from solar cells. The Company's equipment has been installed in approximately 170 factories in 43 countries.

In the solar systems area, the Company provides custom and building integrated photovoltaic modules, stand-alone emergency power backup and electric power grid-connected distributed power generation systems employing photovoltaic technology developed by the Company.

In the biomedical area, the Company provides value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; develops and markets hemodialysis catheters and related devices for the treatment of chronic kidney disease; and performs sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

In the optoelectronics area, the Company provides compound semiconductor foundry services on a merchant basis to customers involved in biomedical/biophotonic instruments, telecommunications and defense applications. Products and services include compound semiconductor wafers, other thin film processes and related device processing and fabrication services. The Company

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also provides materials testing services and performs services in support of sponsored research into practical applications of optoelectronic technologies.

### 2. INTERIM FINANCIAL STATEMENTS

In the opinion of management, the accompanying unaudited condensed consolidated financial statements contain all adjustments necessary to fairly present the Company's financial position as of September 30, 2006 and the results of its operations and cash flows for the three and nine months ended September 30, 2006 and 2005. The results of operations for the three and nine months ended September 30, 2006 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2006.

The accounting policies followed by the Company are set forth in Footnote 2 to the Company's consolidated financial statements in its annual report on Form 10-KSB for the year ended December 31, 2005. As described in Footnote 12, the Company adopted Financial Accounting Standards Board ("FASB") Statement No. 123(R), "Share-Based Payment" ("Statement 123(R)"), on January 1, 2006.

Certain prior period amounts have been reclassified to conform with the current presentation.

### 3. SHORT-TERM INVESTMENTS

Short-term investments at September 30, 2006 consist of \$5.0 million of certificates of deposit maturing March 31, 2007. Interest receivable on these short-term investments amounted to approximately \$98,000 at September 30, 2006, and is classified with other current assets.

### 4. FOREIGN CURRENCY EXCHANGE FORWARD CONTRACT

On September 29, 2006 the Company entered into a foreign exchange forward contract to reduce the short-term effects of foreign currency fluctuations on certain foreign currency payables. Foreign currency exchange transaction and translation losses amounted to approximately \$2,000 and gains amounted to approximately \$1,000 for the three and nine months ended September 30, 2006, respectively, and losses of approximately \$26,000 and approximately \$89,000 for the three and nine months ended September 30, 2005, respectively.

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SPIRE CORPORATION AND SUBSIDIARIES  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
(UNAUDITED)

SEPTEMBER 30, 2006

### 5. ACCOUNTS RECEIVABLE/ADVANCES ON CONTRACTS IN PROGRESS

Net accounts receivable, trade consists of the following:

|                 | September 30,<br>2006 |
|-----------------|-----------------------|
|                 | -----                 |
| Amounts billed  | \$ 2,591,521          |
| Retainage       | 12,817                |
| Accrued revenue | 320,698               |
|                 | -----                 |
|                 | 2,925,036             |

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|   |              |
|---|--------------|
| Less: Allowance for sales returns and doubtful accounts | (254,597)    |
|   | -----        |
| Net accounts receivable                                 | \$ 2,670,439 |
|   | =====        |
| <br>  |              |
| Advances on contracts in progress                       | \$ 6,146,247 |
|   | =====        |

Accrued revenue represents revenue recognized on contracts for which billings have not been presented to customers as of the balance sheet date. These amounts are billed and generally collected within one year.

Retainage represents revenues on certain United States government sponsored research and development contracts. These amounts, which usually represent 15% of the Company's research fee on each applicable contract, are not collectible until a final cost review has been performed by government auditors. Included in retainage are amounts expected to be collected after one year, which totaled approximately \$13,000 at September 30, 2006. All other accounts receivable are expected to be collected within one year.

All contracts with United States government agencies have been audited by the government through December 2004. The Company has not incurred significant losses or adjustments as a result of government audits.

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to pay amounts due. The Company actively pursues collection of past due receivables as the circumstances warrant. Customers are contacted to determine the status of payment and senior accounting and operations management are included in these efforts as is deemed necessary. A specific reserve will be established for past due accounts over 60 days and over a specified amount, when it is probable that a loss has been incurred and the Company can reasonably estimate the amount of the loss. The Company does not record an allowance for government receivables and invoices backed by letters of credit as realizeability is reasonably assured. Bad debts are written off against the allowance when identified. There is no dollar threshold for account balance write-offs. While rare, a write-off is only recorded when all efforts to collect the receivable have been exhausted and only in consultation with the appropriate business line manager.

In addition, the Company maintains an allowance for potential future product returns and rebates related to current period revenues. The Company analyzes the rate of historical returns when evaluating the adequacy of the allowance for sales returns and allowances. Returns and rebates are charged against the allowance when incurred.

Advances on contracts in progress represent contracts for which billings have been presented to the customer but revenue has not been recognized.

### 6. INVENTORIES

Inventories consist of the following:

|                 |                       |
|-----------------|-----------------------|
|                 | September 30,<br>2006 |
|                 | -----                 |
| Raw materials   | \$ 1,973,589          |
| Work in process | 1,077,915             |
| Finished goods  | 257,378               |
|                 | -----                 |



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\$ 3,308,882

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SPIRE CORPORATION AND SUBSIDIARIES  
 NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
 (UNAUDITED)

SEPTEMBER 30, 2006

7. EARNINGS (LOSS) PER SHARE

The following table provides a reconciliation of the denominators of the Company's reported basic and diluted earnings (loss) per share computations for the periods ended:

|  | Three Months Ended<br>September 30, |           | Nine Months Ended<br>September 30, |           |
|--|-------------------------------------|-----------|------------------------------------|-----------|
|  | 2006                                | 2005      | 2006                               | 2005      |
| Weighted average number of common and common equivalent shares outstanding - basic             | 8,213,726                           | 6,983,556 | 7,788,656                          | 6,898,381 |
| Add: Net additional common shares upon assumed exercise of common stock options                | --                                  | --        | --                                 | 274,604   |
| Adjusted weighted average number of common and common equivalents shares outstanding - diluted | 8,213,726                           | 6,983,556 | 7,788,656                          | 7,172,985 |

For the three and nine months ended September 30, 2006, 42,000 and 22,500 shares, respectively, and for the three and nine months ended September 30, 2005, 6,318 and 25,613 shares, respectively, of common stock issuable relative to stock options had exercise prices per share that exceeded the average market price of the Company's common stock and were excluded from the calculation of diluted shares since the inclusion of such shares would be anti-dilutive.

In addition, for the three and nine months ended September 30, 2006, 90,483 and 131,569 shares, respectively, of common stock issuable relative to stock options were excluded from the calculation of dilutive shares since the inclusion of such shares would be anti-dilutive due to the Company's net loss position in the periods.

8. OPERATING SEGMENTS AND RELATED INFORMATION

The following table presents certain operating division information in accordance with the provisions of FASB Statement No. 131, "Disclosure about Segments of an Enterprise and Related Information".

| Solar<br>Equipment | Solar<br>Systems | Biomedical | Opt |
|--------------------|------------------|------------|-----|
|--------------------|------------------|------------|-----|

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For the three months ended September 30, 2006

|                        |              |              |              |    |
|------------------------|--------------|--------------|--------------|----|
| Net sales and revenues | \$ 1,399,666 | \$ 1,058,507 | \$ 2,537,481 | \$ |
| Loss from operations   | (887,551)    | (308,411)    | (175,339)    |    |

For the three months ended September 30, 2005

|                               |            |            |              |    |
|-------------------------------|------------|------------|--------------|----|
| Net sales and revenues        | \$ 907,341 | \$ 115,735 | \$ 2,683,952 | \$ |
| Income (loss) from operations | (483,718)  | 119,541    | (385,830)    |    |

For the nine months ended September 30, 2006

|                        |              |              |              |    |
|------------------------|--------------|--------------|--------------|----|
| Net sales and revenues | \$ 4,305,271 | \$ 1,337,657 | \$ 7,421,081 | \$ |
| Loss from operations   | (1,768,622)  | (905,325)    | (1,127,171)  |    |

For the nine months ended September 30, 2005

|                               |              |              |              |    |
|-------------------------------|--------------|--------------|--------------|----|
| Net sales and revenues        | \$ 4,286,656 | \$ 1,691,726 | \$ 7,962,091 | \$ |
| Income (loss) from operations | 1,769,192    | (352,153)    | 2,369,406    |    |

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SPIRE CORPORATION AND SUBSIDIARIES  
 NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
 (UNAUDITED)

SEPTEMBER 30, 2006

Earnings from operations for the solar equipment and biomedical segments include gains on the sale of licenses of \$3,319,600 and \$3,000,000, respectively, for the nine months ended September 30, 2005. These gains are more fully described in Footnote 14.

The following table shows net sales and revenues by geographic area (based on customer location):

|               | Three Months Ended September 30, |      |              |      | Nine Months Ended Se |      |      |  |
|---------------|----------------------------------|------|--------------|------|----------------------|------|------|--|
|               | 2006                             | %    | 2005         | %    | 2006                 | %    |      |  |
| Foreign       | \$ 1,774,000                     | 31%  | \$ 1,088,000 | 24%  | \$ 5,234,000         | 35%  | \$   |  |
| United States | 4,020,000                        | 69%  | 3,394,000    | 76%  | 9,828,000            | 65%  | 1    |  |
|               | \$ 5,794,000                     | 100% | \$ 4,482,000 | 100% | \$ 15,062,000        | 100% | \$ 1 |  |

Revenues from contracts with United States government agencies for the three months ended September 30, 2006 and 2005 were \$528,000 and \$876,000, or 9% and 20% of consolidated net sales and revenues, respectively.

Revenues from contracts with United States government agencies for the nine months ended September 30, 2006 and 2005 were \$1,616,000 and \$2,557,000, or 11% and 16% of consolidated net sales and revenues, respectively.

Three customers accounted for approximately 36% of the Company's gross sales during the three months ended September 30, 2006 and two customers accounted for approximately 32% of the Company's gross sales for the three months ended September 30, 2005. One customer accounted for approximately 12% of the Company's gross sales during the nine months ended September 30, 2006 and two customers accounted for approximately 26% of the Company's gross sales for the nine months ended September 30, 2005. Three customers represented approximately 39% of trade accounts receivable at September 30, 2006 and one

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customer represented approximately 10% of trade accounts receivable at September 30, 2005.

### 9. INTANGIBLE AND OTHER ASSETS

Patents amounted to \$82,498 net of accumulated amortization of \$626,281, at September 30, 2006. Licenses amounted to \$189,345, net of accumulated amortization of \$135,655 at September 30, 2006. Patent cost is primarily composed of cost associated with securing and registering patents that the Company has been awarded or that have been submitted to, and the Company believes will be approved by, the government. License cost is composed of the cost to acquire rights to the underlying technology or know-how. These costs are capitalized and amortized over their useful lives or terms, ordinarily five years, using the straight-line method. There are no expected residual values related to these patents or licenses. For disclosure purposes, the table below includes future amortization expense for licenses and patents owned by the Company as well as \$551,992 of estimated amortization expense on a five-year straight-line basis related to patents that remain pending as of the balance sheet date. Estimated amortization expense for the periods ending December 31, is as follows:

| Amortization<br>Year  | Expense    |
|-----------------------|------------|
| -----                 | -----      |
| 2006 - fourth quarter | \$ 55,552  |
| 2007                  | 210,325    |
| 2008                  | 183,278    |
| 2009                  | 142,537    |
| 2010 and beyond       | 232,143    |
|                       | -----      |
|                       | \$ 823,835 |
|                       | =====      |

Also included in other assets are \$17,067 of refundable deposits and other assets.

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SPIRE CORPORATION AND SUBSIDIARIES  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
(UNAUDITED)

SEPTEMBER 30, 2006

### 10. AVAILABLE-FOR-SALE INVESTMENTS

Available-for-sale securities consist of the following assets held as part of the Spire Corporation Non-Qualified Deferred Compensation Plan:

|                             | September 30,<br>2006 |
|-----------------------------|-----------------------|
|                             | -----                 |
| Equity investments          | \$ 588,912            |
| Government bonds            | 222,653               |
| Cash and money market funds | 498,398               |
|                             | -----                 |
|                             | \$ 1,309,963          |
|                             | =====                 |

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These investments have been classified as long-term available-for-sale investments and are reported at fair value, with unrealized gains and losses included in accumulated other comprehensive loss, net of related tax effect. As of September 30, 2006, the net unrealized income on these marketable securities was approximately \$23,000.

### 11. NOTES PAYABLE AND CREDIT ARRANGEMENTS

The Company has a \$2,000,000 Loan Agreement (the "Agreement") with Citizens Bank of Massachusetts (the "Bank"), which expires on June 26, 2007. The Agreement provides Standby Letter of Credit Guarantees for foreign and domestic customers, which are 100% secured with cash. At September 30, 2006, the Company had approximately \$452,000 of restricted cash associated with outstanding Letters of Credit. Standby Letters of Credit under this Agreement bear interest at 1%. The Agreement also provides the Company with the ability to convert to a \$2,000,000 revolving line of credit, based upon eligible accounts receivable and certain conversion covenants. Loans under this revolving line of credit bear interest at the Bank's prime rate, as determined, plus 1/2% (8.75% at September 30, 2006.) At September 30, 2006, the Company had not exercised its conversion option and no amounts were outstanding under the revolving line of credit. A commitment fee of .25% is charged on the unused portion of the borrowing base. The Agreement contains covenants including certain financial reporting requirements. At September 30, 2006, the Company was in compliance with its financial reporting requirements and cash balance covenants.

### 12. STOCK-BASED COMPENSATION

On January 1, 2006, the Company adopted the fair value recognition provisions of Statement 123(R) using the modified prospective method. In accordance with the modified prospective method, the Company has not restated its consolidated financial statements for prior periods. Under this transition method, stock-based compensation expense for the three and nine months ended September 30, 2006 includes stock-based compensation expense for all of the Company's stock-based compensation awards granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of FASB Statement No. 123, "Accounting for Stock-Based Compensation" ("Statement 123"). Stock-based compensation expense for all stock-based compensation awards granted on or after January 1, 2006 will be based on the grant-date fair value estimated in accordance with the provisions of Statement 123(R). The impact of Statement 123(R) on the Company's results of operations resulted in recognition of stock option expense of approximately \$61,000 and \$180,000 for the three and nine months ended September 30, 2006. For the three months ended September 30, 2006, approximately \$48,000 of stock compensation expense was charged to selling, general and administrative expenses and approximately \$13,000 was charged to cost of sales. For the nine months ended September 30, 2006, approximately \$142,000 of stock compensation expense was charged to selling, general and administrative expenses and \$38,000 was charged to cost of sales. Compensation expense related to stock options to be charged in future periods amounts to approximately \$739,000 at September 30, 2006, which the Company expects to expense through June 2011.

Prior to January 1, 2006, the Company accounted for share-based payments under the recognition and measurement provisions for Accounts Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25"), and related Interpretations, as permitted by Statement 123. In accordance with APB 25 no compensation cost was required to be recognized for options

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(UNAUDITED)

SEPTEMBER 30, 2006

granted to employees that had an exercise price equal to the market value of the underlying common stock on the date of grant.

The Company uses the Black-Scholes option pricing model as its method for determining fair value of stock option grants, which was also used by the Company for its pro forma information disclosures of stock-based compensation expense prior to the adoption of Statement 123(R). The Company uses the straight-line method of attributing the value of stock-based compensation expense for all stock option grants. Stock compensation expense for all stock-based grants and awards is recognized over the service or vesting period of each grant or award.

Statement 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates in order to derive the Company's best estimate of awards ultimately expected to vest. Forfeitures represent only the unvested portion of a surrendered option and are typically estimated based on historical experience. Based on an analysis of the Company's historical data, the Company applied 12% and 13% forfeiture rates to stock options outstanding in determining its Statement 123(R) stock compensation expense for the three and nine months ended September 30, 2006, respectively, which it believes is a reasonable forfeiture estimate for the periods. In the Company's pro forma information required under Statement 123 for the periods prior to 2006, the Company accounted for forfeitures as they occurred.

The Company has one employee stock option plan: the 1996 Equity Incentive Plan. This plan was approved by stockholders and provides that the Board of Directors may grant options to purchase the Company's common stock to key employees and directors of the Company. Incentive and non-qualified options must be granted at least at the fair market value of the common stock, or in the case of certain optionees, at 110% of such fair market value at the time of grant. The options may be exercised, subject to certain vesting requirements, for periods up to ten years from the date of issue.

A summary of award activity under this plan as of September 30, 2006 and changes during the nine month period is as follows:

|   | Number of<br>Shares | Weighted-Average<br>Exercise Price |
|---|---------------------|------------------------------------|
|   | -----               | -----                              |
| Options outstanding at December 31, 2005  | 406,314             | \$ 4.38                            |
| Granted                                   | 35,750              | \$ 7.92                            |
| Exercised                                 | (53,750)            | \$ 5.30                            |
| Cancelled/expired                         | (21,062)            | \$ 5.67                            |
|   | -----               | -----                              |
| Options outstanding at September 30, 2006 | 367,252             | \$ 4.52                            |
|   | -----               | -----                              |
| Options exercisable at September 30, 2006 | 206,012             | \$ 3.72                            |
|   | -----               | -----                              |

The options outstanding and exercisable at September 30, 2006 were in the following exercise price ranges:

| Options Outstanding | Options Exe |
|---------------------|-------------|
| -----               | -----       |
| Weighted            |             |

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| Range of Exercise Price | Number of Shares Outstanding | -Average Remaining Contractual Life | Weighted-Average Exercise Price | Aggregate Intrinsic Value | Number of Shares Exercisable | Weighted Average Exercise Price |
|-------------------------|------------------------------|-------------------------------------|---------------------------------|---------------------------|------------------------------|---------------------------------|
| \$1.78 to \$ 3.87       | 44,374                       | 3.48 years                          | \$2.32                          | \$ 208,618                | 43,874                       | \$ 2.32                         |
| \$3.88 to \$ 3.90       | 116,746                      | 5.11 years                          | \$3.90                          | 364,635                   | 116,746                      | \$ 3.90                         |
| \$3.91 to \$ 4.90       | 145,695                      | 7.79 years                          | \$4.33                          | 391,498                   | 39,450                       | \$ 4.33                         |
| \$4.91 to \$ 6.36       | 12,187                       | 8.26 years                          | \$6.06                          | 11,724                    | 4,377                        | \$ 6.06                         |
| \$6.37 to \$10.74       | 48,250                       | 9.54 years                          | \$8.22                          | --                        | 1,565                        | \$10.74                         |
|                         | 367,252                      | 6.66 years                          | \$4.52                          | \$ 976,475                | 206,012                      | \$ 4.52                         |

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SPIRE CORPORATION AND SUBSIDIARIES  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
(UNAUDITED)

SEPTEMBER 30, 2006

The aggregate intrinsic value in the table above represents the total intrinsic value, based on the Company's closing stock price of \$7.02 as of September 30, 2006, which would have been received by the option holders had all option holders exercised their options as of that date. The total intrinsic value of options exercised during the three and nine months ended September 30, 2006 was approximately \$18,000 and \$184,000, respectively.

The following table illustrates the pro forma effect on net loss and net loss per share if the Company had applied the fair value recognition provisions of Statement 123 to stock-based employee compensation for the three and nine month periods ended September 30, 2005. Since stock-based compensation expense for the three and nine months ended September 30, 2006 was calculated and recorded under the provisions of Statement 123(R), no pro forma disclosure for that period is presented.

|  | Three Months Ended September 30, 2005 |
|--|---------------------------------------|
| Net income (loss), as reported   | \$ (1,428,623)                        |
| Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards net of related tax effects | (81,416)                              |
| Pro forma net income (loss)  | \$ (1,510,039)                        |
| Earnings per share:  |                                       |
| Basic - as reported  | \$ (0.20)                             |
| Basic - pro forma  | \$ (0.22)                             |
| Diluted - as reported  | \$ (0.20)                             |
| Diluted - pro forma  | \$ (0.22)                             |

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The per-share weighted-average fair value of stock options granted during the three months and nine months ended September 30, 2006 was \$2.70 and \$3.71, respectively, on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

| Year  | Expected<br>Dividend Yield | Risk-Free<br>Interest Rate | Expected<br>Option Life | Expected<br>Volatility Fac |
|-------|----------------------------|----------------------------|-------------------------|----------------------------|
| ----- | -----                      | -----                      | -----                   | -----                      |
| 2006  | --                         | 4.8%                       | 6.5 years               | 47.8%                      |
| 2005  | --                         | 4.3%                       | 5 years                 | 77.4%                      |

For the three and nine months ended September 30, 2006, 11,250 and 35,750 stock options were granted.

### 13. COMPREHENSIVE INCOME (LOSS)

Comprehensive income (loss) includes certain changes in equity that are excluded from net earnings (loss) and consists of the following:

|  | For the Three Months Ended<br>September 30, |                | For the Nine<br>Sept |
|--|---|----------------|----------------------|
|  | 2006  | 2005           | 2006                 |
|  | -----                                       | -----          | -----                |
| Net income (loss)  | \$ (1,940,577)                              | \$ (1,428,623) | \$ (6,025,661)       |
| Other comprehensive loss:  |   |                |                      |
| Net unrealized gain (loss) on available<br>for sale marketable securities, net of<br>tax | 30,126                                      | 8,050          | (1,831)              |
| Total comprehensive income (loss)  | \$ (1,910,451)                              | \$ (1,420,573) | \$ (6,027,492)       |
|  | =====                                       | =====          | =====                |

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SPIRE CORPORATION AND SUBSIDIARIES  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)  
(UNAUDITED)

SEPTEMBER 30, 2006

### 14. SALE OF LICENSES

On May 26, 2005, the Company entered into a global consortium agreement (the "Agreement") with Nisshinbo Industries, Inc. ("Nisshinbo") for the development, manufacturing, and sales of solar photovoltaic module manufacturing equipment. Nisshinbo's prior relationship with Spire was as a sub-licensee of Marubeni Corporation with whom the Company had a license arrangement that was originally signed in 1997, extended in 2003, and terminated in May 2005. Nisshinbo's role as sub-licensee was to manufacture equipment for Marubeni to sell to the Japanese market based upon the Company's proprietary technology. Under the terms of the Agreement, Nisshinbo purchased a license to manufacture and sell the Company's module manufacturing equipment on a semi-exclusive basis

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for an upfront fee plus additional royalties based on ongoing equipment sales over a ten-year period. In addition, the Company and Nisshinbo agreed, but are not obligated, to pursue joint research and development, product improvement activities and sales and marketing efforts. The companies may share market costs such as product collateral and trade show expenses. It may also collaborate on sales leads and have the other company manufacture and service its equipment in the field. Both companies have reciprocal rights to participate in the other company's R&D efforts on a going-forward basis. Nisshinbo can request the Company to further develop a technology but Nisshinbo must (a) share in the costs of these development efforts equally with the Company (and thereafter have joint ownership) otherwise the Company will own the technology under a partial contribute or no participation by Nisshinbo with the Company receiving a royalty from Nisshinbo if it utilizes the technology. At the end of the license all non-jointly owned technology developed under the Agreement will revert back to the owner, with the other party being required to purchase a new license based upon the fair market value of that technology in order to continue to utilize the technology.

On June 27, 2005, the Company received JPY 400,000,000 from the sale of this permanent license. The Company determined that the Nisshinbo Agreement contains multiple elements consisting of (1) the granting of a license to utilize the Company's technology and (2) the semi-exclusive right to utilize the technology for a period of 10 years. The Company believes the granting of the license meets the criteria of Emerging Issues Task Force ("EITF") 00-21, "accounting for revenue arrangements with multiple elements", paragraph 9(a), as the license to utilize the technology has value to Nisshinbo on a stand-alone basis. Further, Question 1 to Securities and Exchange Commission ("SEC") staff accounting bulletin Topic 13A-3f "Nonrefundable up-front fees", was directly considered as guidance for determining if the upfront fee under the Nisshinbo Agreement should be recognized upon the signing of contract or recognized over the term of the license. It is the Company's belief that a separate earnings process was complete as Nisshinbo was purchasing access to utilize technology it already had in its possession; therefore, recognition of the gain on the sale was appropriate. The Company has determined the fair value of the license and royalty based on an appraisal. As a result, a \$3,319,600 gain was recognized as a gain on sale of license in the accompanying unaudited condensed consolidated statements of operations for the three and nine months ended September 30, 2005. The balance of \$350,000 was determined to represent an advanced royalty payment and was recorded as an advance on contracts in progress. This amount is being credited as royalty income over the ten year license period on a straight line basis.

### 15. PRIVATE PLACEMENT OF EQUITY

On April 26, 2006, the Company entered into Stock Purchase Agreements with two accredited institutional investors in connection with the private placement of 941,176 shares of the Company's common stock at a purchase price of \$8.50 per share. On April 28, 2006, the Company completed the private placement. The net proceeds of the sale were approximately \$7.7 million after deducting placement fees and other closing costs.

Under the terms of the Stock Purchase Agreements, the Company was obligated to file a registration statement on Form S-3 with the SEC registering the resale of the shares of common stock sold. The Company filed the Form S-3 on May 3, 2006 and the SEC declared it effective on May 12, 2006. In the event that this registration statement ceases to be effective and available to the investors for an aggregate period of 30 days in any 12 month period, the Company must pay liquidated damages starting on the 61st day (in the aggregate) of any suspensions in any 12 month period, and each 30th day thereafter until the suspension is terminated an amount equal to 1% of the aggregate purchase price paid by the investors. However, the Company is not obligated to pay liquidation damages on shares not owned by the investors at the time of the suspension or



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shares that are tradable under Rule 144(k). The Company reviewed EITF 00-19, "ACCOUNTING FOR DERIVATIVE FINANCIAL INSTRUMENTS INDEXED TO, AND POTENTIALLY SETTLED IN, A COMPANY'S OWN STOCK", and EITF 05-04, "THE EFFECT OF A LIQUIDATED DAMAGES CLAUSE ON A FREESTANDING FINANCIAL INSTRUMENT SUBJECT TO EITF ISSUE NO. 00-19", to determine if these liquidation damages provisions

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### SPIRE CORPORATION AND SUBSIDIARIES NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED) (UNAUDITED)

SEPTEMBER 30, 2006

require a portion of the equity raised needs to be accounted under FASB statement No. 133, "ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES" ("statement 133"). It determined that the liquidated damages provisions did not require treatment under statement 133 and therefore will treat all of the funds raised under these agreements as additions to permanent equity.

#### 16. MANUFACTURING AGREEMENT WITH PRINCIPIA LIGHTWORKS, INC.

On August 29, 2006, the Company's wholly owned subsidiary, Bandwidth Semiconductor, LLC ("Bandwidth"), entered into a five-year manufacturing agreement in which it will be the exclusive supplier to Principia Lightworks, Inc. ("Principia"), of semiconductor wafers, enabling Principia, a Woodland Hills, California firm, to begin high volume production of its patented device, an electron beam pumped vertical cavity surface emitting laser ("eVCSEL") as a light source for production display applications, including rear-projection consumer televisions. Bandwidth will manufacture epitaxial wafers which will be further processed by Principia to produce red, blue, and green colored lasers.

Under the terms of this agreement, Bandwidth will be producing III/V and II/VI wafers for Principia with full production expected to start in mid 2007. Bandwidth will begin the scale-up of its existing metalorganic chemical vapor deposition ("MOCVD") and related processing facilities to satisfy Principia's requirements. Principia made an up-front payment for nonrecurring engineering and facility access costs and, in addition, will make monthly facility availability payments throughout the term of the agreement. The first eighteen months of the facility availability payments have been secured by a pledge of Principia common equity which shall be returned after eighteen months upon receipt of the monthly payments. The Company reviewed FASB statement No. 140, "Accounting for Transfers and Servicing of Financial Assets and extinguishments of debt", and determined that the Company shall not recognize the pledged shares and only will recognize if Principia defaults under the terms of the agreement. Principia has no right of repayment with respect to these payments. Bandwidth has an obligation to purchase and qualify MOCVD equipment to manufacture the wafers and make available the facility for Principia's manufacturing needs for a period of 5 years. Upon qualification, Principia has an obligation to purchase a minimum quantity of wafers for the first two years of the Agreement. A fixed price has been established for each wafer produced with some discounting contingent upon Principia committing to certain volume commitments. Until Bandwidth qualifies the new equipment, it will defer the revenue recognition of any advance payments related to the facility preparation and availability. Bandwidth shall have full ownership of the equipment and may utilize any excess capacity for other customers. In September, 2006, the Company entered into a purchase order with a manufacturer of MOCVD equipment. Although the Company will be committing capital resources to complete the scale-up, it anticipates the up-front payment plus the monthly payments will be sufficient to meet its capital requirements under the agreement. Providing the parties meet their

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respective obligations over the term of the Agreement, no net outlay of capital will be needed.

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### ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

THIS MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS SECTION AND OTHER PARTS OF THIS REPORT CONTAIN FORWARD-LOOKING STATEMENTS WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (THE "EXCHANGE ACT"), WHICH STATEMENTS INVOLVE RISKS AND UNCERTAINTIES. THESE STATEMENTS RELATE TO OUR FUTURE PLANS, OBJECTIVES, EXPECTATIONS AND INTENTIONS. THESE STATEMENTS MAY BE IDENTIFIED BY THE USE OF WORDS SUCH AS "MAY", "COULD", "WOULD", "SHOULD", "WILL", "EXPECTS", "ANTICIPATES", "INTENDS", "PLANS", "BELIEVES", "ESTIMATES", AND SIMILAR EXPRESSIONS. THE COMPANY'S ACTUAL RESULTS AND THE TIMING OF CERTAIN EVENTS MAY DIFFER SIGNIFICANTLY FROM THE RESULTS AND TIMING DESCRIBED IN THE FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE OR CONTRIBUTE TO SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE FACTORS DISCUSSED OR REFERRED TO IN THIS REPORT AND IN THE ANNUAL REPORT ON FORM 10-KSB FOR THE YEAR ENDED DECEMBER 31, 2005. THE FOLLOWING DISCUSSION AND ANALYSIS OF THE COMPANY'S FINANCIAL CONDITION AND RESULTS OF OPERATIONS SHOULD BE READ IN LIGHT OF THOSE FACTORS AND IN CONJUNCTION WITH, THE COMPANY'S ACCOMPANYING CONSOLIDATED FINANCIAL STATEMENTS, INCLUDING THE NOTES THERETO. OVERVIEW

Spire Corporation (the "Company") develops, manufactures and markets highly-engineered products and services in four principal business areas: solar equipment, solar systems, biomedical and optoelectronics, bringing to bear expertise in materials technologies across all four business areas, discussed below.

In the solar equipment area, the Company develops, manufactures and markets specialized equipment for the production of terrestrial photovoltaic modules from solar cells. The Company's equipment has been installed in approximately 170 factories in 43 countries.

In the solar systems area, the Company provides custom and building integrated photovoltaic modules, stand-alone emergency power backup and electric power grid-connected distributed power generation systems employing photovoltaic technology developed by the Company.

In the biomedical area, the Company provides value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; develops and markets hemodialysis catheters and related devices for the treatment of chronic kidney disease; and performs sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

In the optoelectronics area, the Company provides compound semiconductor foundry services on a merchant basis to customers involved in biomedical/biophotonic instruments, telecommunications and defense applications.

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Products and services include compound semiconductor wafers, other thin film processes and related device processing and fabrication services. The Company also provides materials testing services and performs services in support of sponsored research into practical applications of optoelectronic technologies.

Operating results will depend upon product mix, as well as the timing of shipments of higher priced products from the Company's solar equipment line and delivery of solar systems. Export sales, which amounted to 35% of net sales and revenues for the nine months ended September 30, 2006, continue to constitute a significant portion of the Company's net sales and revenues.

On January 1, 2006, the Company adopted the fair value recognition provisions of Financial Accounting Standards Board Statement No. 123(R), Share-Based Payment ("Statement 123(R)") using the modified prospective method. The impact of Statement 123(R) on the Company's results of operations resulted in recognition of stock option expense of approximately \$61,000 and \$180,000 for the three and nine months ended September 30, 2006, respectively.

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### RESULTS OF OPERATIONS

The following table sets forth certain items as a percentage of net sales and revenues for the periods presented:

|   | Three Months Ended<br>September 30, |       | Nine Months Ended<br>September 30, |       |
|---|-------------------------------------|-------|------------------------------------|-------|
|   | 2006                                | 2005  | 2006                               | 2005  |
| Net sales and revenues                        | 100%                                | 100%  | 100%                               | 100%  |
| Cost of sales and revenues                    | (88)                                | (81)  | (88)                               | (85)  |
|   | -----                               | ----- | -----                              | ----- |
| Gross profit                                  | 12                                  | 19    | 12                                 | 15    |
| Selling, general and administrative expenses  | (43)                                | (53)  | (49)                               | (39)  |
| Internal research and development             | (4)                                 | (9)   | (4)                                | (7)   |
| Gain on extinguishment of purchase commitment | --                                  | 13    | --                                 | 4     |
| Gain on sale of licenses                      | --                                  | --    | --                                 | 39    |
|   | -----                               | ----- | -----                              | ----- |
| Income (loss) from operations                 | (35)                                | (30)  | (41)                               | 12    |
| Other income (expense), net                   | 1                                   | (2)   | 1                                  | (2)   |
|   | -----                               | ----- | -----                              | ----- |
| Income (loss) before income taxes             | (34)                                | (32)  | (40)                               | 10    |
| Income tax expense                            | --                                  | --    | --                                 | --    |
|   | -----                               | ----- | -----                              | ----- |
| Net income (loss)                             | (34%)                               | (32%) | (40%)                              | 10%   |
|   | =====                               | ===== | =====                              | ===== |

### OVERALL

The Company's total net sales and revenues for the nine months ended September 30, 2006 ("2006") decreased 6% compared to the nine months ended September 30, 2005 ("2005"). The decrease was primarily attributable to a decrease in funded research and development activities, including research and development activities associated with a cost sharing agreement with the Department of Energy National Renewable Energy Laboratory ("NREL").

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### SOLAR EQUIPMENT UNIT

Sales in the Company's solar equipment unit increased less than 1% during 2006 as compared to 2005 primarily due to an increase in the volume and timing of the delivery of customer orders.

### SOLAR SYSTEMS UNIT

Sales in the Company's solar systems unit decreased 21% during 2006 as compared to 2005 primarily due to the volume and timing of the delivery of customer orders.

### BIOMEDICAL BUSINESS UNIT

Revenues of the Company's biomedical business unit decreased 7% during 2006 as compared to 2005 as a result of a 28% decrease in revenue from Spire's research and development activities and a 3% decrease in sales of medical devices, partially offset by a 6% increase in biomedical processing services revenue.

### OPTOELECTRONICS BUSINESS UNIT

Sales in the Company's optoelectronics business unit decreased 3% during 2006 primarily due to the timing of contract completion and a decrease in the size and dollar value of customers' orders.

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THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2006 COMPARED TO THREE AND NINE MONTHS  
 -----  
 ENDED SEPTEMBER 30, 2005 NET SALES AND REVENUES  
 -----

The following table categorizes the Company's net sales and revenues for the periods presented:

|   | Three Months Ended<br>September 30, |              | Incre        |
|---|-------------------------------------|--------------|--------------|
|   | 2006                                | 2005         | \$           |
| Contract research, service and license revenues | \$ 2,764,000                        | \$ 3,173,000 | \$ (409,000) |
| Sales of goods                                  | 3,030,000                           | 1,309,000    | 1,721,000    |
|   | -----                               | -----        | -----        |
| Net sales and revenues                          | \$ 5,794,000                        | \$ 4,482,000 | \$ 1,312,000 |

The 13% decrease in contract research, service and license revenues for the three months ended September 30, 2006 as compared to the three months ended September 30, 2005 is primarily attributable to a decrease in revenues from research and development activities partially offset by a 3% increase in revenues from Bandwidth foundry services. Revenues from biomedical research and development activities decreased 30% in 2006 as compared to 2005 primarily due to a decrease in the number of contracts associated with funded research and development activities, and a 41% decrease in revenue from government funded research and development activities associated with a cost sharing agreement with NREL.

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The 131% increase in sales of goods for the three months ended September 30, 2006 as compared to the three months ended September 30, 2005 was primarily due to increases in solar equipment and solar systems revenues and, to a lesser extent, an increase in biomedical product sales. Solar equipment and solar system revenues increased 149% and 815%, respectively, as compared to 2005 primarily due to the volume and timing of the delivery of customer orders. Biomedical product sales increased 12% in 2006 as compared to 2005 as a result of increased demand for Spire's line of hemodialysis catheters.

The following table categorizes the Company's net sales and revenues for the periods presented:

|   | Nine Months Ended<br>September 30, |               | Incre        |
|---|------------------------------------|---------------|--------------|
|   | 2006                               | 2005          | \$           |
| Contract research, service and license revenues | \$ 7,877,000                       | \$ 8,715,000  | \$ (838,000) |
| Sales of goods                                  | 7,185,000                          | 7,294,000     | (109,000)    |
|   | \$ 15,062,000                      | \$ 16,009,000 | \$ (947,000) |
|   | \$ 15,062,000                      | \$ 16,009,000 | \$ (947,000) |

The 10% decrease in contract research, service and license revenues for the nine months ended September 30, 2006 as compared to the nine months ended September 30, 2005 is primarily attributable to a decrease in research and development activities partially offset by increases in biomedical processing services. Revenues from Spire's research and development activities decreased 32% in 2006 as compared to 2005 primarily due to a decrease in the number of contracts associated with funded research and development and a decrease in revenue from activities associated with our cost sharing agreement with NREL. Revenues from biomedical processing services increased 6% in 2006 compared to 2005 due to the timing and delivery of customer orders.

The 1% decrease in sales of goods for the nine months ended September 30, 2006 as compared to the nine months ended September 30, 2005 was primarily due to decreases in solar systems revenues and biomedical product sales, partially offset by an increase in solar equipment revenues. Solar systems revenues decreased 21% in 2006 as compared to 2005 due to the timing of the delivery of customer orders, and biomedical product sales decreased 3% in 2006 as compared to 2005 as a result of a reduction in product trials by prospective customers for Spire's line of hemodialysis catheters. Solar equipment revenues increase 9% in 2006 as compared to 2005 due to the timing of the delivery of customer orders.

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### COST OF SALES AND REVENUES

The following table categorizes the Company's cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

| Three Months Ended September 30, |   |      |   | I |
|----------------------------------|---|------|---|---|
| 2006                             | % | 2005 | % |   |
|                                  |   |      |   |   |

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|  |              |     |              |     |    |
|--|--------------|-----|--------------|-----|----|
| Cost of contract research, services and licenses | \$ 2,120,000 | 77% | \$ 2,360,000 | 74% | \$ |
| Cost of goods sold                               | 2,984,000    | 98% | 1,269,000    | 97% |    |
|  | -----        |     | -----        |     |    |
| Net cost of sales and revenues                   | \$ 5,104,000 | 88% | \$ 3,629,000 | 81% | \$ |
|  | =====        |     | =====        |     |    |

The \$240,000 (10%) decrease in cost of contract research and service revenues in 2006 is primarily due to a 43% decrease in costs from Spire's research and development activities associated with its decreased revenues, and a 9% decrease in biomedical processing service costs, partially offset by a 1% increase in the costs of sales of the Company's optoelectronics business unit, due to an increase in direct costs resulting from a 3% increase in optoelectronics revenues and changes in its product mix in 2006 versus 2005.

The \$1,715,000 (135%) increase in cost of goods sold is primarily due to a 131% increase in sales of goods. The increase in cost of goods sold as a percentage of revenue is the result of higher absorption of indirect costs over a decreased revenue base and a shift in product mix.

The following table categorizes the Company's cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

|  | Nine Months Ended September 30, |       |               |       |       |
|--|---------------------------------|-------|---------------|-------|-------|
|  | 2006                            | %     | 2005          | %     |       |
|  | -----                           | ----- | -----         | ----- | ----- |
| Cost of contract research, services and licenses | \$ 6,625,000                    | 83%   | \$ 6,635,000  | 76%   | \$    |
| Cost of goods sold                               | 6,678,000                       | 94%   | 6,980,000     | 96%   |       |
|  | -----                           |       | -----         |       |       |
| Net cost of sales and revenues                   | \$ 13,303,000                   | 88%   | \$ 13,615,000 | 85%   | \$    |
|  | =====                           |       | =====         |       |       |

The \$10,000 (less than 1%) decrease in cost of contract research and service revenues in 2006 is primarily due to a 42% decrease in costs from Spire's research and development activities associated with its decreased revenues, offset by a 14% increase in the costs of sales of the Company's optoelectronics business unit, due to an increase in direct costs resulting from changes in its product mix in 2006 versus 2005.

The \$302,000 (4%) decrease in cost of goods sold is primarily due to a 2% decrease in sales of goods, and a decrease in direct costs in our biomedical product lines. These changes in costs as a percentage of revenue resulted from changes in product mix.

OPERATING EXPENSES

The following table categorizes the Company's operating expenses for the periods presented, stated in dollars and as a percentage of net sales and revenues:

|  | Three Months Ended September 30, |       |       |       |       |
|--|----------------------------------|-------|-------|-------|-------|
|  | 2006                             | %     | 2005  | %     |       |
|  | -----                            | ----- | ----- | ----- | ----- |
|  |                                  |       |       |       |       |

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| Selling, general and administrative | \$ 2,496,000 | 43% | \$ 2,400,000 | 54% | \$ |
|-------------------------------------|--------------|-----|--------------|-----|----|
| Internal research and development   | 194,000      | 3%  | 412,000      | 9%  |    |
| Operating expenses                  | \$ 2,690,000 | 46% | \$ 2,812,000 | 63% | \$ |

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses for the three months ended September 30, 2006 increased by approximately \$96,000. The increase was primarily due to increased costs associated with sales and marketing efforts throughout all of our product lines, ongoing litigation matters, increased facility related costs, loss from a buy-out of a capital lease, and stock option compensation costs. The decrease in selling, general and administrative expenses as a percentage of sales and revenues is primarily due to the increase in sales and revenue.

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INTERNAL RESEARCH AND DEVELOPMENT

The decrease in research and development costs was primarily a result of the Company's reduced effort in its cost-sharing contract with the NREL.

The following table categorizes the Company's operating expenses for the periods presented, stated in dollars and as a percentage of net sales and revenues:

|                                     | Nine Months Ended September 30, |     |              |     |    |
|-------------------------------------|---------------------------------|-----|--------------|-----|----|
|                                     | 2006                            | %   | 2005         | %   |    |
| Selling, general and administrative | \$ 7,306,000                    | 49% | \$ 6,287,000 | 39% | \$ |
| Internal research and development   | 547,000                         | 3%  | 1,070,000    | 7%  |    |
| Operating expenses                  | \$ 7,853,000                    | 52% | \$ 7,357,000 | 46% | \$ |

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

The 16% increase in selling, general and administrative expenses was primarily due to increased costs associated with sales and marketing efforts throughout all of our product lines, ongoing litigation matters, loss from a buy-out of a capital lease, increased facility related costs, and stock option compensation costs. The increase in selling, general and administrative expenses as a percentage of sales and revenues was primarily due to the decrease in sales and revenues.

INTERNAL RESEARCH AND DEVELOPMENT

The 49% decrease in research and development costs, and the decrease in

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research and development expenses as a percentage of sales and revenues, was primarily a result of the Company's reduced effort in its cost-sharing contract with NREL.

### OTHER EXPENSE, NET

The Company earned approximately \$98,000 and approximately \$25,000 of interest income for the three months ended September 30, 2006 and 2005, respectively. The Company incurred interest expense of approximately \$36,000 and approximately \$62,000 for the three months ended September 30, 2006 and 2005, respectively. The increase in interest income is due to interest earned on investments made with the net proceeds of approximately \$7.7 million received from the private placement of common equity in April 2006. The decrease in interest expense is primarily associated with lower interest incurred on capital leases associated with the semiconductor foundry. In addition, the Company recognized approximately \$2,000 and approximately \$26,000 in currency translation loss for the three months ended September 30, 2006 and 2005, respectively, associated with cash maintained in a Japanese Yen account.

The Company earned approximately \$192,000 and approximately \$43,000 of interest income for the nine months ended September 30, 2006 and 2005, respectively. The Company incurred interest expense of approximately \$124,000 and approximately \$215,000 for the nine months ended September 30, 2006 and 2005, respectively. The increase in interest income is due to interest earned on investments made with the net proceeds of approximately \$7.7 million received from the private placement of common equity in April 2006. The decrease in interest expense is primarily associated with lower interest incurred on capital leases associated with the semiconductor foundry.

In addition, the Company recognized approximately \$1,000 in currency translation income and approximately \$89,000 of currency transaction loss for the nine months ended September 30, 2006 and 2005, respectively, associated with cash maintained in a Japanese Yen account.

### INCOME TAXES

The Company did not record an income tax benefit for the three and nine months ended September 30, 2006, or an income tax provision for the three and nine months ended September 30, 2005. A valuation allowance has been provided against the current period tax benefit due to uncertainty regarding the realization of the net operating loss in the future.

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### NET INCOME (LOSS)

The Company reported a net loss for the three months ended September 30, 2006 of approximately \$1,941,000, compared to net loss of approximately \$1,429,000 in 2005. The increase in net loss in 2006 versus 2005 is primarily due to a gain recorded on the extinguishment of a purchase commitment in 2005 in the amount of approximately \$593,000.

The Company reported a net loss for the nine months ended September 30, 2006 of \$6,026,000, compared to net income of approximately \$1,689,000 in 2005. The decrease in net income in 2006 versus 2005 is primarily due to gains on the sale of licenses in 2005 of approximately \$6.3 million, and to a lesser extent, decreased sales and increased selling, general and administrative expenses in 2006 versus 2005, and a gain recorded on the extinguishment of a purchase commitment in 2005 in the amount of approximately \$593,000.

### LIQUIDITY AND CAPITAL RESOURCES



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|                           | September 30,<br>2006 | December 31,<br>2005 | Increase/ (Decrease) |      |
|---------------------------|-----------------------|----------------------|----------------------|------|
|                           |                       |                      | \$                   | %    |
| Cash and cash equivalents | \$ 3,540,000          | \$ 3,630,000         | \$ (90,000)          | (2%) |
| Working capital           | \$ 8,363,000          | \$ 5,270,000         | \$ 3,093,000         | 59%  |

Cash and cash equivalents and working capital increased primarily due to the net proceeds from a private placement of common stock. This increase was partially offset by net operating losses incurred by the Company in 2006.

On April 26, 2006, the Company entered into Stock Purchase Agreements with two accredited institutional investors in connection with the private placement of 941,176 shares of the Company's common stock at a purchase price of \$8.50 per share. On April 28, 2006, the Company completed the private placement. The net proceeds of the sale were approximately \$7.7 million after deducting placement fees and other closing costs.

The Company has a \$2,000,000 Loan Agreement (the "Agreement") with Citizens Bank of Massachusetts (the "Bank"), which expires on June 26, 2007. The Agreement provides Standby Letter of Credit guarantees for certain foreign and domestic customers, which are 100% secured with cash. At September 30, 2006, the Company had approximately \$452,000 of restricted cash associated with outstanding Letters of Credit. Standby Letters of Credit under this Agreement bear interest at 1%. The Agreement also provides the Company with the ability to convert to a \$2,000,000 revolving line of credit, based upon eligible accounts receivable and certain conversion covenants. Loans under this revolving line of credit bear interest at the Bank's prime rate as determined plus 1/2% (8.75% at September 30, 2006.) At September 30, 2006, the Company had not exercised its conversion option and no amounts were outstanding under the revolving line of credit. A commitment fee of .25% is charged on the unused portion of the borrowing base. The Agreement contains covenants including certain financial reporting requirements. At September 30, 2006, the Company was in compliance with its financial reporting requirements and cash balance covenants.

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to pay amounts due. The Company actively pursues collection of past due receivables as the circumstances warrant. Customers are contacted to determine the status of payment and senior accounting and operations management are included in these efforts as is deemed necessary. A specific reserve will be established for past due accounts over 60 days and over a specified amount, when it is probable that a loss has been incurred and the Company can reasonably estimate the amount of the loss. The Company does not record an allowance for government receivables and invoices backed by letters of credit as realizeability is reasonably assured. Bad debts are written off against the allowance when identified. There is no dollar threshold for account balance write-offs. While rare, a write-off is only recorded when all efforts to collect the receivable have been exhausted and only in consultation with the appropriate business line manager.

At September 30, 2006, the Company's accumulated deficit was approximately \$7,631,000, compared to accumulated deficit of approximately \$1,605,000 as of December 31, 2005.

Under the terms of the Stock Purchase Agreements, the Company was obligated to file a registration statement on Form S-3 with the Securities and Exchange Commission (the "SEC") registering the resale of the shares of common stock sold. The Company filed the Form S-3 on May 3, 2006 and the SEC declared it

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effective on May 12, 2006. In the event that this registration statement ceases to be effective and available to the investors for an aggregate period of 30 days in any 12 month period, the Company must pay liquidated damages starting on the 61st day (in the aggregate) of any suspensions in any 12 month period, and each 30th day thereafter until the suspension is terminated an amount equal to 1% of the aggregate purchase price paid by the investors. However, the Company is not obligated to pay liquidation damages on shares not owned by the investors at the time of the suspension or shares that are tradable under Rule 144(k). The Company

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reviewed Emerging Issues Task Force ("EITF") 00-19: ACCOUNTING FOR DERIVATIVE FINANCIAL INSTRUMENTS INDEXED TO, AND POTENTIALLY SETTLED IN, A COMPANY'S OWN STOCK, and EITF 05-04: THE EFFECT OF A LIQUIDATED DAMAGES CLAUSE ON A FREESTANDING FINANCIAL INSTRUMENT SUBJECT TO EITF ISSUE NO. 00-19, to determine if these liquidation damages provisions require a portion of the equity raised needs to be accounted under Financial Accounting Standards ("FAS") No. 133: ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES. It determined that the liquidated damages provisions did not require treatment under FAS No. 133 and therefore will treat all of the funds raised under these agreements as additions to permanent equity.

The Company believes it has sufficient resources to finance its current operations for the foreseeable future from operating cash flow and working capital.

### IMPACT OF INFLATION AND CHANGING PRICES

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Historically, the Company's business has not been materially impacted by inflation. Manufacturing equipment and solar systems are generally quoted, manufactured and shipped within a cycle of approximately nine months, allowing for orderly pricing adjustments to the cost of labor and purchased parts. The Company has not experienced any negative effects from the impact of inflation on long-term contracts. The Company's service business is not expected to be seriously affected by inflation because its procurement-production cycle typically ranges from two weeks to several months, and prices generally are not fixed for more than one year. Research and development contracts usually include cost escalation provisions.

### FOREIGN CURRENCY FLUCTUATION

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The Company sells only in U.S. dollars, generally against an irrevocable confirmed letter of credit through a major United States bank. Therefore the Company is not directly affected by foreign exchange fluctuations on its current orders. However, fluctuations in foreign exchange rates do have an effect on the Company's customers' access to U.S. dollars and on the pricing competition on certain pieces of equipment that the Company sells in selected markets. The Company received Japanese yen in exchange for the sale of a license to its solar technology. In addition, purchases made and royalties received under the Company's Consortium Agreement from its Japanese partner will be in Japanese yen, and the Company purchases goods in currencies other than U.S. dollars. In September 2006 the Company entered into a foreign exchange forward contract to reduce the short-term effects of foreign currency fluctuations for these transactions. The Company does not believe that foreign exchange fluctuations will materially affect its operations.

### RELATED PARTY TRANSACTIONS

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The Company subleased 77,000 square-feet in a building leased by Mykrolis Corporation, who in turn leased the building from SPI-Trust, a Trust of which Roger Little, Chairman of the Board, Chief Executive Officer and President of the Company, is the sole trustee and principal beneficiary. The 1985 sublease originally was for a period of ten years, was extended for a five-year period expiring on November 30, 2000 and was further extended for a five-year period expiring on November 30, 2005. The sublease agreement provided for minimum rental payments plus annual increases linked to the consumer price index. Effective December 1, 2005, the Company entered into a two-year Extension of Lease Agreement (the "Lease Extension") directly with SPI-Trust. The Company assumed certain responsibilities of Mykrolis, the tenant under the former lease, as a result of the Lease Extension including payment of all building and real estate related expenses associated with the ongoing operations of the property. The Company will allocate a portion of these expenses to SPI-Trust based on pre-established formulas utilizing square footage and actual usage where applicable. These allocated expenses will be invoiced monthly and be paid utilizing a SPI-Trust escrow account of which the Company has sole withdrawal authority. SPI-Trust is required to maintain three (3) months of its anticipated operating costs within this escrow account. The Company believes that the terms of the Lease Extension are commercially reasonable. Rent expense under the Lease Extension for the three and nine months ended September 30, 2006 was approximately \$310,000 and \$931,000, respectively. No amounts were due from SPI-Trust as of September 30, 2006 for building related costs.

In conjunction with the acquisition of Bandwidth by the Company, SPI-Trust, a Trust of which Roger G. Little, Chairman of the Board, Chief Executive Officer and President of the Company, is sole trustee and principal beneficiary, purchased from Stratos Lightwave, Inc. (Bandwidth's former owner) the building that Bandwidth occupies in Hudson, New Hampshire for \$3.7 million. Subsequently, the Company entered into a lease for the building (90,000 square feet) with SPI-Trust whereby the Company will pay \$4.1 million to SPI-Trust over an initial five-year term expiring in 2008 with a Company option to extend for five years. In addition to the rent payments, the lease obligates the Company to keep on deposit with SPI-Trust the equivalent of three months rent (\$236,250 as of September 30, 2006.) The lease agreement does not provide for a transfer of ownership at any point. Interest costs were assumed at 7%. For the nine months ended September 30, 2006, interest expense was approximately \$107,000. This lease has been classified as a related party capital lease and a summary of payments (including interest) is as follows:

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| Year                        | Rate Per<br>Square Foot | Annual Rent                   | Monthly Rent | Security<br>Deposit |
|-----------------------------|-------------------------|-------------------------------|--------------|---------------------|
| June 1, 2003 - May 31, 2004 | \$6.00                  | \$ 540,000                    | \$45,000     | \$135,000           |
| June 1, 2004 - May 31, 2005 | 7.50                    | 675,000                       | 56,250       | 168,750             |
| June 1, 2005 - May 31, 2006 | 8.50                    | 765,000                       | 63,750       | 191,250             |
| June 1, 2006 - May 31, 2007 | 10.50                   | 945,000                       | 78,750       | 236,250             |
| June 1, 2007 - May 31, 2008 | 13.50                   | 1,215,000                     | 101,250      | 303,750             |
|                             |                         | -----<br>\$4,140,000<br>----- |              |                     |

At September 30, 2006, approximately \$942,000 and \$778,000 are reflected as the current and long-term portions of capital lease obligation - related party, respectively, in the consolidated balance sheet.

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### CRITICAL ACCOUNTING POLICIES

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The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires us 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. Among the significant estimates affecting our consolidated financial statements are those relating to revenue recognition, reserves for doubtful accounts and sales returns and allowances, reserve for excess and obsolete inventory, impairment of long-lived assets, income taxes, and warranty reserves. We regularly evaluate our estimates and assumptions based upon historical experience and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. To the extent actual results differ from those estimates, our future results of operations may be affected. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements. Refer to Footnote 2 of our notes to consolidated financial statements in our Annual Report on Form 10-KSB for the year ended December 31, 2005 for a description of our accounting policies.

### REVENUE RECOGNITION

The Company derives its revenues from three primary sources: (1) commercial products including, but not limited to, solar energy manufacturing equipment, solar energy systems and hemodialysis catheters; (2) biomedical and semiconductor processing services; and (3) United States government funded research and development contracts.

We generally recognize product revenue upon shipment of products provided there are no uncertainties regarding customer acceptance, persuasive evidence of an arrangement exists, the sales price is fixed or determinable, and collectibility is reasonably assured. These criteria are generally met at the time of shipment when the risk of loss and title passes to the customer or distributor, unless a consignment arrangement exists. Revenue from consignment arrangements is recognized based on product usage indicating sales are complete.

The Company utilizes a distributor network to market and sell its hemodialysis catheters domestically. The Company generally recognizes revenue when the catheters are shipped to its distributors. Gross sales reflect reductions attributable to customer returns and various customer incentive programs including pricing discounts and rebates. Product returns are permitted in certain sales contracts and an allowance is recorded for returns based on the Company's history of actual returns. Certain customer incentive programs require management to estimate the cost of those programs. The allowance for these programs is determined through an analysis of programs offered, historical trends, expectations regarding customer and consumer participation, sales and payment trends, and experience with payment patterns associated with similar programs that had been previously offered. An analysis of the sales return and rebate activity for the nine months ended September 30, 2006, is as follows:

|                             | Rebates   | Returns   | Total      |
|-----------------------------|-----------|-----------|------------|
|                             | -----     | -----     | -----      |
| Balance - December 31, 2005 | \$ 91,600 | \$ 19,100 | \$ 110,700 |
| Provision                   | 277,556   | 12,835    | 290,391    |
| Utilization                 | (262,456) | (18,335)  | (280,791)  |
|                             | -----     | -----     | -----      |

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|                              |            |           |            |
|------------------------------|------------|-----------|------------|
| Balance - September 30, 2006 | \$ 106,700 | \$ 13,600 | \$ 120,300 |
|                              | =====      | =====     | =====      |

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- o Credits for rebates are recorded in the month of the actual sale.
- o Credits for returns are processed when the actual merchandise is received by the Company.
- o Substantially all rebates and returns are processed no later than three months after original shipment by the Company.

The reserve percentage has been approximately 13% to 15% of inventory held by distributors over the last two years. The Company performs various sensitivity analyses to determine the appropriate reserve percentage to use. To date, actual quarterly reserve utilization has approximated the amount provided. The total inventory held by distributors covered by sales incentive programs was approximately \$751,000 at September 30, 2006.

If sufficient history to make reasonable and reliable estimates of returns or rebates does not exist, revenue associated with such practices is deferred until the return period lapses or a reasonable estimate can be made. This deferred revenue will be recognized as revenue when the distributor reports to us that it has either shipped or disposed of the units (indicating that the possibility of return is remote).

The Company's OEM capital equipment solar energy business builds complex customized machines to order for specific customers. Substantially all of these orders are sold on a FOB Bedford, Massachusetts (or EX-Works Factory) basis. It is the Company's policy to recognize revenues for this equipment as the product is shipped to the customer, as customer acceptance is obtained prior to shipment and the equipment is expected to operate the same in the customer's environment as it does in the Company's environment. When an arrangement with the customer includes future obligations or customer acceptance, revenue is recognized when those obligations are met or customer acceptance has been achieved. The Company's solar energy systems business installs solar energy systems on customer-owned properties on a contractual basis. Generally, revenue is recognized once the systems have been installed and the title is passed to the customer. For arrangements with multiple elements, the Company allocates fair value to each element in the contract and revenue is recognized upon delivery of each element. If the Company is not able to establish fair value of undelivered elements, all revenue is deferred.

The Company recognizes revenues and estimated profits on long-term government contracts on the accrual basis where the circumstances are such that total profit can be estimated with reasonable accuracy and ultimate realization is reasonably assured. The Company accrues revenue and profit utilizing the percentage of completion method using a cost-to-cost methodology. A percentage of the contract revenues and estimated profits is determined utilizing the ratio of costs incurred to date to total estimated cost to complete on a contract by contract basis. Profit estimates are revised periodically based upon changes and facts, and any losses on contracts are recognized immediately. Some of the contracts include provisions to withhold a portion of the contract value as retainage until such time as the United States government performs an audit of the cost incurred under the contract. The Company's policy is to take into revenue the full value of the contract, including any retainage, as it performs against the contract since the Company has not experienced any substantial losses as a result of audits performed by the United States government.

### IMPAIRMENT OF LONG-LIVED ASSETS

Long-lived assets, including fixed assets and intangible assets, are

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continually monitored and are evaluated at least annually for impairment. The determination of recoverability is based on an estimate of undiscounted cash flows expected to result from the use of an asset and its eventual disposition. The estimate of cash flows is based upon, among other things, certain assumptions about expected future operating performance. Our estimates of undiscounted cash flows may differ from actual cash flows due to, among other things, technological changes, economic conditions, changes to our business model or changes in our operating performance. If the sum of the undiscounted cash flows (excluding interest) is less than the carrying value, we recognize an impairment loss, measured as the amount by which the carrying value exceeds the fair value of the asset.

### STOCK-BASED COMPENSATION

On January 1, 2006, the Company adopted the fair value recognition provisions of Financial Accounting Standards Board ("FASB") Statement No. 123(R), Share-Based Payment ("Statement 123(R)") using the modified prospective method. In accordance with the modified prospective method, the Company has not restated its consolidated financial statements for prior periods. Under this transition method, stock-based compensation expense for the first quarter of 2006 includes stock-based compensation expense for all of the Company's stock-based compensation awards granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of FASB Statement No. 123, Accounting for Stock-Based Compensation ("Statement 123"). Stock-based compensation expense for all stock-based compensation awards granted on or after January 1, 2006 will be based on the grant-date fair value estimated in accordance with the provisions of Statement 123(R). The impact of Statement 123(R) on the Company's results of operations resulted in recognition of stock option expense of approximately \$61,000 and \$180,000 for the three and nine months ended September 30, 2006, respectively.

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### CONTRACTUAL OBLIGATIONS, COMMERCIAL COMMITMENTS AND OFF-BALANCE SHEET

#### ARRANGEMENTS

The following table summarizes the Company's gross contractual obligations at September 30, 2006 and the maturity periods and the effect that such obligations are expected to have on its liquidity and cash flows in future periods:

| Contractual Obligations          | Payments Due by Period |                     |                |                |                      |
|----------------------------------|------------------------|---------------------|----------------|----------------|----------------------|
|                                  | Total                  | Less than<br>1 Year | 2 - 3<br>Years | 4 - 5<br>Years | More Than<br>5 Years |
| PURCHASE OBLIGATIONS             | \$8,847,000            | \$8,793,000         | \$ 54,000      | \$ --          | --                   |
| CAPITAL LEASES:                  |                        |                     |                |                |                      |
| Related party capital lease      | 1,834,000              | 1,035,000           | 799,000        | --             | --                   |
| OPERATING LEASES:                |                        |                     |                |                |                      |
| Unrelated party operating leases | \$ 262,000             | \$ 126,000          | \$ 136,000     | \$ --          | --                   |
| Related party operating lease    | 1,449,000              | 1,242,000           | 207,000        | --             | --                   |

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Purchase obligations include all open purchase orders outstanding regardless of whether they are cancelable or not.

Capital lease obligations outlined above include both the principal and interest components of these contractual obligations.

At September 30, 2006, the Company maintained a Japanese yen account that held approximately JPY 14,819,000 (approximately \$125,000). Total currency translation loss for the three months and currency translation income for the nine months ended September 30, 2006 of approximately \$2,000 and \$1,000, respectively, is reflected in other income (expense), net in the accompanying unaudited condensed consolidated statement of operations.

Outstanding letters of credit totaled approximately \$389,000 at September 30, 2006. The letters of credit principally secure performance obligations, and allow holders to draw funds up to the face amount of the letter of credit if the Company does not perform as contractually required. These letters of credit expire through 2007.

### ITEM 3. CONTROLS AND PROCEDURES

#### EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

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As required by Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Company carried out an evaluation under the supervision and with the participation of the Company's management, including the Chief Executive Officer and President and the Chief Financial Officer and Treasurer, of the effectiveness of the Company's disclosure controls and procedures as of September 30, 2006. In designing and evaluating the Company's disclosure controls and procedures, the Company and its management recognize that there are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their desired control objectives. Additionally, in evaluating and implementing possible controls and procedures, the Company's management was required to apply its reasonable judgment. Furthermore, management considered certain matters deemed by the Company's independent auditors to constitute a material weakness in the Company's internal control over financial reporting described below. Based upon the required evaluation, the Chief Executive Officer and President and the Chief Financial Officer and Treasurer concluded that as of September 30, 2006, due to the material weakness in internal control over financial reporting described below, the Company's disclosure controls and procedures were not effective to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

On March 21, 2006, the Company's independent auditor, Vitale, Caturano & Company, Ltd. ("VCC") issued a letter advising management and the Audit Committee, that, in connection with its audit of the Company's consolidated financial statements for the year ended December 31, 2005, it noted certain matters involving internal control and its operation that it considered to be a material weakness under standards of the Public Company Accounting Oversight Board. VCC noted that, since its March 2005 letter, in which VCC noted material weaknesses in the Company's internal controls in connection with

its audit of the Company's 2004 financial statements, the Company has made

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significant strides over the past year to improve its internal control structure. These include:

- o An improved reconciliation process;
- o A disciplined and timely monthly close process; and
- o Detailed reviews of monthly close packages by the appropriate levels of management.

However, VCC also noted that improvements still need to be made in the reconciliation and documentation and information flow processes. In particular, the Company lost several key individuals who were integral to the accounting department in general and the closing process specifically. While the finance group was able to close the books and analyze the accounts on a timely basis, the staff was resource constrained and the established controls, policies and procedures could not be fully implemented during the year end close. The Company supplemented the staff with outside assistance and the Chief Financial Officer and Treasurer assumed various review roles. However, VCC noted that the finance department will not be alleviated and control structure improved until such time as the full finance team is assembled.

In addition, VCC noted that the Company does not have sufficient internal knowledge and expertise of its enterprise reporting system, Solomon, including technical knowledge. The Company utilizes external consultants to help them develop reports and troubleshoot the system; however without a fully dedicated resource, the risk of errors being generated in or by the system is significant. VCC noted that the Company should develop a comprehensive training program associated with the system so that employees are aware of the system and all of its capabilities in order to obtain the efficiencies the system can provide. The full utilization and knowledge of the ERP system is critical to the Company's internal control over financial reporting. The Company should focus on developing the in-house knowledge of the ERP system, either through trainings or recruiting of an experienced information technology professional with the requisite knowledge.

The Company concurs with VCC's findings noted above and is continuing to make changes in its internal controls and procedures. Unfortunately, the Company was operating without a Controller, Assistant Controller and Senior Cost Accountant during the latter half of 2005. These positions are critical to the oversight and review of the finance group's output. As VCC noted, the Company supplemented those functions through the use of outside consultants and through the Chief Financial Officer and Treasurer assuming certain review roles. Unfortunately, this weakens the internal control structure as the review process is compressed and streamlined. With the recent resignation and replacement of the Chief Financial Officer and Treasurer, this internal control structure has been additionally weakened. The Company was able to close the books and analyze the accounts on a relatively timely basis by having certain roles formally performed by the Chief Financial Officer and Treasurer be performed by outside consultants. The Company has hired a Senior Cost Accountant and did benefit from having its Assistant Controller position filled during the second and third quarters of 2006. The Company has had difficulty recruiting a full time Controller. In view of the recent change in the Chief Financial Officer and Treasurer position, the Company now plans to have the Controller assume the additional position of Chief Accounting Officer. It is actively searching for a replacement. The Company has made significant strides in its monthly closing processes and expects that its internal controls will improve once a full finance staff is in place.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

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Except as noted below, there was no change in the Company's internal control over financial reporting that occurred during the third fiscal quarter of 2006 that has materially affected, or is reasonable likely to materially affect, the Company's internal control over financial reporting.

On May 14, 2006, the Company's Chief Financial Officer and Treasurer resigned. The Company has since filled the Chief Financial Officer and Treasurer role internally and is actively seeking a Controller who will take on the additional position of Chief Accounting Officer. Until this position is filled the Company will rely on outside consultants to provide aid to the Chief Financial Officer and Treasurer in maintaining the internal control structure and with SEC filings.

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### PART II OTHER INFORMATION

#### ITEM 1. LEGAL PROCEEDINGS

From time to time, the Company is subject to legal proceedings and claims arising from the conduct of its business operations. The Company does not expect the outcome of these proceedings, either individually or in the aggregate, to have a material adverse effect on its financial position, results of operations, or cash flows.

The Company was named a defendant in 58 cases filed from August 2001 to July 2003 in various state courts in Texas by persons claiming damages from the use of allegedly defective mechanical heart valves coated by a process licensed by the Company to St. Jude Medical, Inc., the heart valve manufacturer, which has also been named as a defendant in these cases. In June 2003, a motion for summary judgment was granted to the Company and most of these cases were dismissed, based on the principle of federal preemption. The Texas Court of Appeals upheld the lower court's decision, and, because these cases were not submitted for review to the Texas Supreme Court, the judgments rendered are now final.

Of the remaining cases (filed after August 2003), the fact situations of seven of them make them subject, in the opinions of defendant's counsel, to the original decision to grant the Company its motion for summary judgment. Plaintiff's attorneys in these cases are being asked to voluntarily request the court to dismiss these cases, but a motion for summary judgment based on the original decision granted to the Company by the Court may be filed in all cases where such voluntary action does not occur. One case was appealed, and a decision is pending. One additional case is not subject to Federal preemption; the Company and other defendant's counsel are evaluating available defense options.

During the second quarter of 2005 a suit was filed by Arrow International, Inc. against Spire Biomedical, Inc., a wholly owned subsidiary of the Company, alleging patent infringement by the Company. The complaint claims one of the Company's catheter products induces and contributes to infringement when medical professionals insert it. The Company has responded to the complaint denying all allegations and has filed certain counterclaims. The discovery process in this case has continued and is nearly complete. The Company filed a motion for summary judgment, asserting patent invalidity resulting from plaintiff's failure to follow the administrative procedures of the U.S. Patent and Trademark Office ("USPTO") which failure has remained uncorrected. On August 4, 2006, the Court granted the Company's motion and dismissed this lawsuit without prejudice. Plaintiffs applied to revive the applicable patent, which application was

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granted by the USPTO in August, 2006. Plaintiffs refiled their lawsuit against the Company in September, 2006. The Company has filed its answer and resumed its defense. Based on information presently available to the Company, the Company believes that it does not infringe any valid claim of the plaintiff's patent and that, consequently, it has meritorious legal defenses with respect to this action in the event it were to be reinstated.

### ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

### ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

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

None.

### ITEM 5. OTHER INFORMATION

None.

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### ITEM 6. EXHIBITS

- 10(s) Manufacturing Agreement, dated August 29, 2006, by and between Bandwidth Semiconductor, LLC, a wholly owned subsidiary of Spire ("Bandwidth"), and Principia Lightworks, Inc. ("Principia").\*
- 31.1 Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of the Chief Financial Officer and Treasurer pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of the Chief Financial Officer and Treasurer pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906 of the Sarbanes-Oxley Act of 2002.

\* Portions of this Exhibit have been omitted pursuant to a request for confidential treatment.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Spire Corporation

Dated: November 14, 2006

By: /s/ Roger G. Little

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Roger G. Little  
Chairman of the Board, Chief Executive  
Officer and President

Dated: November 14, 2006

By: /s/ Christian Dufresne

-----  
Christian Dufresne  
Chief Financial Officer and Treasurer

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EXHIBIT INDEX

| Exhibit<br>----- | Description<br>-----  |
|------------------|---|
| 10(s)            | Manufacturing Agreement, dated August 29, 2006, by and between Bandwidth Semiconductor, LLC, a wholly owned subsidiary of Spire ("Bandwidth"), and Principia Lightworks, Inc. ("Principia").* |
| 31.1             | Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.   |
| 31.2             | Certification of the Chief Financial Officer and Treasurer pursuant to ss.302 of the Sarbanes-Oxley Act of 2002.  |
| 32.1             | Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906 of the Sarbanes-Oxley Act of 2002.             |

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32.2 Certification of the Chief Financial Officer and Treasurer pursuant to 18 U.S.C. ss.1350, as adopted pursuant to ss.906 of the Sarbanes-Oxley Act of 2002.

\* Portions of this Exhibit have been omitted pursuant to a request for confidential treatment.