

SPIRE CORP
 Form 3
 December 19, 2007

FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
 Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

| | | | | |
|---|---------|--------------------------------------|---|---|
| 1. Name and Address of Reporting Person * | | 2. Date of Event Requiring Statement | 3. Issuer Name and Ticker or Trading Symbol | |
| Quercus Trust (Last) (First) (Middle) | | 12/14/2007 | SPIRE CORP [SPIR] | |
| 1835 NEWPORT BLVD., A109 - PMB 467 | | | 4. Relationship of Reporting Person(s) to Issuer | 5. If Amendment, Date Original Filed(Month/Day/Year) |
| (Street) | | | (Check all applicable) | |
| COSTA MESA, CA 92627 | | | <input type="checkbox"/> Director <input type="checkbox"/> Officer (give title below) | <input checked="" type="checkbox"/> 10% Owner <input type="checkbox"/> Other (specify below) |
| (City) | (State) | (Zip) | | 6. Individual or Joint/Group Filing(Check Applicable Line) <input type="checkbox"/> Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person |

Table I - Non-Derivative Securities Beneficially Owned

| 1. Title of Security (Instr. 4) | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---------------------------------|---|--|---|
| Common Stock | 837,043 | D | A |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly. SEC 1473 (7-02)

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 4) | 2. Date Exercisable and Expiration Date (Month/Day/Year) | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|--|--|---|--|--|---|
| | | Title | | | |

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|---------------------|--------------------|----------------------------------|----------------------------------|
| Date Exercisable | Expiration Date | Amount or Number of Shares | or Indirect (I) (Instr. 5) |
|---------------------|--------------------|----------------------------------|----------------------------------|

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|---------|------------|
| | Director | 10% Owner | Officer | Other |
| Quercus Trust 1835 NEWPORT BLVD. A109 - PMB 467 COSTA MESA, CA 92627 | Â | Â X | Â | Â |
| Gelbaum David 1835 NEWPORT BLVD. A109 - PMB 467 COSTA MESA, CA 92627 | Â | Â X | Â | Co-Trustee |
| Gelbaum Monica Chavez 1835 NEWPORT BLVD. A109 - PMB 467 COSTA MESA, CA 92627 | Â | Â X | Â | Co-Trustee |

Signatures

| | |
|---|------------|
| /s/ David Gelbaum, Co-Trustee, The Quercus Trust | 12/18/2007 |
| __Signature of Reporting Person | Date |
| /s/ David Gelbaum, as attorney-in-fact for Monica Chavez Gelbaum, Co-Trustee, The Quercus Trust | 12/18/2007 |
| __Signature of Reporting Person | Date |

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 5(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, See Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.