

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPROVAL | |
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| OMB Number: | 3235-0287 |
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN 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)

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|--|--|--|--|---|--|
| 1. Name and Address of Reporting Person Shelton Larry | | 2. Issuer Name and Ticker or Trading Symbol PERMA FIX ENVIRONMENTAL SERVICES INC [pesi] | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) | |
| (Last) (First) (Middle) 2531 SCENIC DRIVE | | 3. Date of Earliest Transaction (Month/Day/Year) 09/29/2010 | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person | |
| (Street) SALT LAKE CITY, UT 84109 | | 4. If Amendment, Date Original Filed (Month/Day/Year) | | | |
| (City) (State) (Zip) | | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | |

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | | | |
| Common Stock | | | | | | | 49,728 | D | |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|---|-----|--|-----------------|---|----------------------------|--|--|--|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock Option | \$ 2.15 | | | | | | | (1) | 07/27/2016 | Common Stock | 30,000 | | 30,000 | D | |
| Stock Option | \$ 2.95 | | | | | | | (2) | 08/02/2017 | Common Stock | 12,000 | | 12,000 | D | |
| Stock Option | \$ 2.34 | | | | | | | (3) | 08/05/2018 | Common Stock | 12,000 | | 12,000 | D | |
| Stock Option | \$ 2.67 | | | | | | | (4) | 07/29/2019 | Common Stock | 12,000 | | 12,000 | D | |
| Stock Option | \$ 1.68 | 09/29/2010 | | A | | 12,000 | | (5) | 09/29/2020 | Common Stock | 12,000 | \$ 1.68 | 12,000 | D | |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| Shelton Larry 2531 SCENIC DRIVE SALT LAKE CITY, UT 84109 | X | | | |

Signatures

| | |
|--|---------------------|
| /s/Larry Shelton | 09/29/2010 |
| <small>Signature of Reporting Person</small> | <small>Date</small> |

Explanation of Responses:

- * If the form is filed by more than one reporting person, *see* Instruction 4(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).
- (1) Stock Option granted 07/27/06 under the Company's 2003 Outside Director's Stock Plan. The Options vest fully six months from date of grant.
- (2) Stock Option granted 08/02/07 under the Company's 2003 Outside Director's Stock Plan. The Options vest fully six months from date of grant.
- (3) Stock Option granted 08/05/08 under the Company's 2003 Outside Director's Stock Plan. The Options vest fully six months from date of grant.
- (4) Stock Option granted 07/29/09 under the Company's 2003 Outside Director's Stock Plan. The Options vest fully six months from date of grant.
- (5) Stock Option granted 09/29/10 under the Company's 2003 Outside Director's Stock Plan. The Options vest fully six months from date of grant.

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

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