POSEDEL RHEA J Form SC 13G February 11, 2010

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

SCHEDULE 13G

| Under the Securities Exchange Act of 1934 | | | |
|--|--|--|--|
| Aehr Test Systems | | | |
| (Name of Issuer) | | | |
| Common Stock | | | |
| (Title of Class of Securities) | | | |
| 00760J108 | | | |
| (CUSIP Number) | | | |
| N/A | | | |
| (Date of Event which Requires Filing of this Statement) | | | |
| Check the appropriate box to designate the rule pursuant to which this Schedule is filed: | | | |
| / / Rule 13d-1(b) / / Rule 13d-1(c) /x/ Rule 13d-1(d) | | | |
| *The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page. | | | |
| The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes). | | | |

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CUSIP No. 00760J108

| (1) | Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Rhea J. Posedel | | |
|---|--|---|--|
| (2) | Check the Appropriate Box if a Member of a Group (See Instruction (a) // Not Applicable (b) // | | |
| (3) | | | |
| (4) | Citizenship or Place of Organization United States | | |
| Number Shares Benefic Owned B Each Report: | , , | Sole Voting Power 1,136,373 | |
| | icially (6) | Shared Voting Power 0 | |
| | (7) | Sole Dispositive Power 1,136,373 | |
| | - | Shared Dispositive Power 0 | |
| (9) | Aggregate Amount Beneficially Owned by Each Reporting Person 1,136,373 | | |
| (10) | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) N/A | | |
| (11) | Percent of Class Represented by Amount in Row (9) 13.0% | | |
| (12) | Type of Reporting Person (See Instructions) IN | | |
| Schedu | ule 13G | Page 3 of 5 | |
| Item 1 | 1. | | |
| (a) | Name of Issuer: Aehr Test Systems | | |
| (b) | Address of Issuer's Principal Executive Offices: 400 Kato Terrace, Fremont, CA 94539 | | |
| Item 2 (a) | 2. Name of Person Filing: | Rhea J. Posedel | |
| (b) | Address of Principal Business Office or, if none, Residence: 400 Kato Terrace, Fremont, CA 94539 | | |
| (c) | Citizenship: United States | | |
| (d) | Title of Class of Securities: Common Stock | | |
| (e) | CUSIP Number: 00760J108 | | |
| Item 3 | | led pursuant to Rule 240.13d-1(b), or eck whether the person filing is a: | |
| (a) | / / Broker or Dealer reg. | istered under Section 15 of the Act | |

(15 U.S.C. 78o).

- (b) / Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) // Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) // Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) // An investment adviser in accordance with Rule 240.13d-1(b)(1)(ii)(E);
- (f) / / An employee benefit plan or endowment fund in accordance with Rule 240.13d-1 (b) (1) (ii) (F);
- (g) / / A parent holding company or control person in accordance with Rule 240.13d-1 (b) (1) (ii) (G);
- (h) / / A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) / A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) / Group, in accordance with Rule 240.13d-1(b)(1)(ii)(J).

Item 4. Ownership

- (a) Amount beneficially owned: 1,136,373 *
- (b) Percent of class: 13.0%
- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or to direct the vote 1,136,373
 - (ii) Shared power to vote or to direct the vote 0

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- (iii) Sole power to dispose or to direct the disposition of 1,136,373
- (iv) Shared power to dispose or to direct the disposition of 0

*consists of (i) 952,481 shares held by Rhea Posedel, (ii) 20,000 shares held by Vivian Owen, Mr. Posedel's wife (deceased), (iii) 9,950 shares held by Rhea Posedel as custodian for Natalie Diane Posedel and (iv) 153,942 Options exercisable as of 60 days from December 31, 2009.

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Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following //.

- Item 6. Ownership of More than Five Percent on Behalf of Another Person Inapplicable
- Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Inapplicable

- Item 8. Identification and Classification of Members of the Group $\hbox{\tt Inapplicable}$

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Rhea J. Posedel, Individually
----Name/Title