

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
WASHINGTON, DC 20549

Form 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **November 21, 2005**

Bimini Mortgage Management, Inc.

(Exact Name of Registrant as Specified in Charter)

Maryland
(State or Other Jurisdiction of Incorporation)

001-32171
(Commission File Number)

72-1571637
(IRS Employer Identification No.)

3305 Flamingo Drive, Vero Beach, Florida 32963
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code **(772) 231-1400**

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 8.01. Other Events

Marty Levine, Chief Operating Officer of Opteum Financial Services, a wholly owned subsidiary of Bimini Mortgage Management, Inc. (the "Company"), purchased a total of 20,000 shares of the Company's Class A Common Stock in the open market from November 4, 2005 through November 16, 2005 at prices ranging from \$9.13 to \$9.69.

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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 hereunto duly authorized.

Date: November 21, 2005

BIMINI MORTGAGE MANAGEMENT, INC.

By: /s/ Jeffrey J. Zimmer
Jeffrey J. Zimmer
Chairman, Chief Executive Officer and President

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