

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

**FORM 12b-25**

**NOTIFICATION OF LATE FILING**

**SEC File Number: 000-24838**  
**CUSIP Number: 577223100**

(Check one): ☐ Form 10-K ☐ Form 20-F ☐ Form 11-K ☒ Form 10-Q ☐ Form 10-D ☐ Form N-SAR ☐ Form N-CSR

For Period Ended: **April 2, 2006**

- ☐ Transition Report on Form 10-K
- ☐ Transition Report on Form 20-F
- ☐ Transition Report on Form 11-K
- ☐ Transition Report on Form 10-Q
- ☐ Transition Report on Form N-SAR

For the Transition Period Ended: \_\_\_\_\_

*Read Instruction (on back page) Before Preparing Form. Please Print or Type.*

**Nothing in this form shall be construed to imply that the Commission  
has verified any information contained herein.**

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

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**PART I — REGISTRANT INFORMATION**

**Mattson Technology, Inc.**

Full Name of Registrant

**N/A**

Former Name if Applicable

**47131 Bayside Parkway**

Address of Principal Executive Office (*Street and Number*)

**Fremont, California 94538**

City, State and Zip Code

**PART II — RULES 12b-25(b) AND (c)**

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- ☒ (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and

(c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

### **PART III — NARRATIVE**

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period. (Attach extra Sheets if Needed)

Mattson Technology, Inc. (the "Company") is unable to timely file its Quarterly Report on Form 10-Q for the quarter ended April 2, 2006 (the "Form 10-Q") without incurring undue hardship and expense, although the Company anticipates it will be able to file the Form 10-Q within the five calendar day time limit prescribed under rule 12b-25 under the Securities Exchange Act of 1934, as amended. The Company is still compiling information which is necessary for the filing, including additional disclosures required by the Company's adoption of FAS 123(R) "Share-Based Payment" in the first quarter of 2006.

### **PART IV — OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

**Ludger Viefhues, Executive Vice President, Finance and Chief Financial Officer** (510) 657-5900  
(Name) (Area Code) (Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes ☒ No ☐

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes ☒ No ☐

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

The Company's results of operations for the quarter ended April 2, 2006, to be reported in the quarterly report on Form 10-Q, will reflect significant changes from the corresponding quarter in the prior year, unrelated to the causes for the delay described in Part III. On May 9, 2006, the Company issued a press release reporting its results for the quarter ended April 2, 2006, a copy of which was furnished with a report on Form 8-K on May 9, 2006.

**Mattson Technology, Inc.**  
(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date **May 12, 2006**

By /s/ Ludger Viefhues  
**Ludger Viefhues**  
**Executive Vice President, Finance and Chief**  
**Financial Officer**