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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

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**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): October 5, 2006**

**KLA-TENCOR CORPORATION**

(Exact Name of Registrant as Specified in Charter)

Delaware  
(State or Other Jurisdiction of  
Incorporation)

000-09992  
(Commission File Number)

04-2564110  
(IRS Employer Identification No.)

160 Rio Robles  
San Jose, California 95134  
(Address of Principal Executive Offices)

Registrant's telephone number, including area code: (408) 875-3000

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

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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 (see General Instruction A.2. below):

- 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))
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**Item 8.01. Other Events.**

On October 5, 2006, KLA-Tencor Corporation and ADE Corporation issued a joint press release announcing that that the acquisition of ADE by KLA-Tencor has received the approval of German antitrust authorities and that the previously announced Phase II investigation of the acquisition has been closed. The acquisition has already been cleared by the antitrust authorities in the United States and in all other applicable jurisdictions. In addition, ADE's stockholders approved the acquisition on July 13, 2006. The parties expect the merger to close on October 11, 2006.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

The following exhibits are filed herewith:

Exhibit Number	Description
99.1	Text of press release issued by KLA-Tencor Corporation and ADE Corporation dated October 5, 2006.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**KLA-TENCOR CORPORATION**

Date: October 5, 2006

By: /s/ Jeff Hall

Name: Jeff Hall

Title: Chief Financial Officer

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## Exhibit Index

Exhibit Number	Description
99.1	Text of press release issued by KLA-Tencor Corporation and ADE Corporation dated October 5, 2006.

## NEWS RELEASE

**KLA-Tencor Contacts:**

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Chief Financial Officer  
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Sr. Director, Corporate Communications  
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**ADE Contact:**

Brian James  
Executive Vice President and  
Chief Financial Officer  
(781) 467-3500

FOR IMMEDIATE RELEASE

**KLA-TENCOR / ADE ACQUISITION RECEIVES GERMAN  
ANTITRUST CLEARANCE**

**Merger Expected to Close on October 11, 2006**

SAN JOSE, CA and WESTWOOD, MA, October 5, 2006 — KLA-Tencor Corporation (NasdaqGS: KLAC) and ADE Corporation (NasdaqGM: ADEX) announced that the acquisition of ADE by KLA-Tencor has received the approval of German antitrust authorities and that the previously announced Phase II investigation of the acquisition has been closed. The acquisition has already been cleared by the antitrust authorities in the United States and in all other applicable jurisdictions. In addition, ADE's stockholders approved the acquisition on July 13, 2006. The parties expect the merger to close on October 11, 2006.

**About ADE Corporation:**

ADE Corporation is a leading supplier of metrology and inspection systems for the semiconductor wafer, semiconductor device, magnetic data storage and optics manufacturing industries. Wafer suppliers and device manufacturers worldwide rely on ADE measurement and inspection systems to certify and ensure the highest quality bare silicon substrates. ADE's most recent generation of products serve both 65nm in-line manufacturing applications and 45nm process development. Semiconductor device yields begin with the bare wafer, and ADE's leading technology provides early insight into surface defect, shape, flatness and nanotopography of these advanced 300mm substrates. Additional information about ADE is available on the Internet at <http://www.ade.com>, which website is not part of this press release.

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**About KLA-Tencor:**

KLA-Tencor is the world leader in yield management and process control solutions for semiconductor manufacturing and related industries. Headquartered in San Jose, Calif., the company has sales and service offices around the world. An S&P 500 company, KLA-Tencor is traded on the NASDAQ Global Select Market under the symbol KLAC. Additional information about the company is available on the Internet at <http://www.kla-tencor.com>, which website is not part of this press release.

**Cautionary Statement Regarding Forward-Looking Statements**

*This news release contains certain forward-looking statements within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995 and federal securities law. Such forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Those statements that make reference to expectations, predictions, beliefs, and assumptions should be considered forward-looking statements. These statements include, but are not limited to, those associated with the expected closing time for the proposed merger. These statements involve risks and uncertainties including those associated with failure to consummate or delay in consummating the proposed merger, changes in laws or regulations and other similar factors. Further information on potential factors that could affect KLA-Tencor's or ADE Corporation's respective businesses is contained in their reports on file with the Securities and Exchange Commission, including their respective Form 10-K's. Except as otherwise required by law KLA-Tencor and ADE are under no obligation to (and expressly disclaim any such obligation to) update or alter their respective forward-looking statements whether as a result of new information, future events or otherwise.*

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