UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 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): April 26, 2007

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

 $\label{eq:NA} N/A$ (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 (se 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))				

Item 2.02 Results of Operations and Financial Condition

On April 26, 2007, KLA-Tencor Corporation, Inc. (the "Company") issued a press release regarding selected financial results for its third quarter of fiscal 2007, ended March 31, 2007. The Company also announced in the press release that it will hold a conference call (with a web cast at www.kla-tencor.com) at 2:00 p.m. Pacific Daylight Time regarding its third quarter results and its outlook for the fourth quarter. A copy of the press release is furnished as Exhibit 99.1 to this Form 8-K.

The information in this Form 8-K shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended ("Exchange Act"), or otherwise subject to the liabilities under that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit

Number Description

99.1 Text of press release issued by KLA-Tencor Corporation, Inc. dated April 26, 2007.

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: April 26, 2007

By: /s/ Jeffrey L. H

By: /s/ Jeffrey L. Hall
Name: Jeffrey L. Hall
Title: Chief Financial Officer

Exhibit Number 99.1

Description

Text of press release issued by KLA-Tencor Corporation, Inc. dated April 26, 2007.

News Release

Company Contacts: Jeff Hall

Chief Financial Officer (408) 875-6800 jeff.hall@kla-tencor.com

Kyra Whitten (Media)

Senior Director, Corporate Communications

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FOR IMMEDIATE RELEASE

KLA-TENCOR REPORTS OF FISCAL 2007 THIRD QUARTER RESULTS Revenue of \$716 million and EPS of \$0.76

SAN JOSE, Calif., April 26, 2007—KLA-Tencor Corporation (NASDAQ: KLAC) today announced operating results for its third quarter of fiscal 2007, which ended on March 31, 2007. The Company reported GAAP net income of \$155 million, which included share-based compensation and other charges discussed below, and GAAP earnings per diluted share of \$0.76 on revenue of \$716 million in the third quarter, compared to GAAP net income of \$90 million or \$0.44 per diluted share on revenue of \$649 million in the second quarter of fiscal 2007, and GAAP net income of \$97 million or \$0.47 per diluted share on revenue of \$520 million in the third quarter of fiscal 2006.

Net income for the third quarter of fiscal 2007 reflects \$62 million in pre-tax charges, as follows:

- Acquisition-related charges of \$18 million for amortization of intangible assets and in-process R&D related primarily to the acquisitions of ADE Corporation, OnWafer Technologies and SensArray Corporation. Acquisition-related charges for the second quarter of fiscal 2007 were \$19 million.
- Stock-based compensation charges of \$29 million, compared to \$16 million for the second quarter of fiscal 2007 and \$48 million for the third quarter of fiscal 2006
- Restatement-related charges of \$15 million, including compensation expense for non-executive related to reimbursements for penalty taxes under Section 409A of
 the Internal Revenue Code and legal and other expenses related to the stock options investigation, shareholder litigation and related matters. Restatement-related
 charges for the second quarter of fiscal 2007 were \$15 million.

"KLA-Tencor's solid financial performance this quarter reflects our focus on enabling our customers to meet their technical and economic challenges with our inspection and metrology solutions," said Rick Wallace, Chief Executive Officer of KLA-Tencor. "I thank our employees for their unwavering commitment to operational excellence, customer satisfaction and profitable growth."

KLA-Tencor ended the third quarter of fiscal 2007 with approximately eight months of product-related shipment and revenue backlog. The geographic breakdown of orders in the quarter was:

	Percent of Orders		
	Current	Historical	
Region	Quarter	Average	
United States	17%	25%	
Japan	28%	25%	
Taiwan	31%	20%	
Korea, China, & Singapore	16%	20%	
Europe	8%	10%	

Cash and investments ended the quarter at \$1.6 billion compared to \$2.1 billion at the end of previous quarter as a result of a pre-payment of \$750 million on an accelerated stock repurchase program.

KLA-Tencor will discuss its fiscal 2007 third quarter results, along with its outlook for the fourth quarter of fiscal 2007, on a conference call today beginning at 2:00 p.m. Pacific Daylight Time. A webcast of the call will be available at: www.kla-tencor.com.

Forward Looking Statements: Statements in this press release other than historical facts, such as statements regarding the benefit to customers of KLA-Tencor's products, demand for KLA-Tencor's products and the Company's future financial performance, are forward-looking statements, and are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current information and expectations, and involve a number of risks and uncertainties. Actual results may differ materially from those projected in such statements due to various factors, including but not limited to: our ability to successfully address and resolve all issues arising from the discovery that we had retroactively priced stock options (primarily from July 1, 1997 to June 30, 2002) and had not accounted for them correctly; the demand for semiconductors; new and enhanced product offerings by competitors; cancellation of orders by customers; and changing customer demands. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this release, please refer to the Company's Form 10-K, Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein).

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 National Market under the symbol KLAC. Additional information about the Company is available on the Internet at http://www.kla-tencor.com

KLA-Tencor Corporation

Condensed Consolidated Unaudited Balance Sheets

(In thousands)	March 31, 2007	June 30, 2006
ASSETS		
Current assets:		
Cash and investments	\$ 1,585,234	\$ 2,325,796
Accounts receivable, net	499,298	439,899
Inventories	530,141	449,156
Other current assets	332,482	328,392
Total current assets	2,947,155	3,543,243
Land, property and equipment, net	363,767	395,412
Goodwill and intangibles, net	465,330	70,341
Other assets	564,541	566,915
Total assets	\$ 4,340,793	\$4,575,911
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY		·
Current liabilities:		
Accounts payable	\$ 93,805	\$ 95,192
Deferred system profit	217,232	226,142
Unearned revenue	86,805	80,543
Other current liabilities	631,694	600,604
Total current liabilities	1,029,536	1,002,481
Minority interest in subsidiary	\$ —	\$ 5,439
Stockholders' equity:		
Common stock and capital in excess of par value	958,567	1,421,373
Prepaid stock repurchase	(113,676)	_
Retained earnings	2,446,446	2,137,710
Accumulated other comprehensive income	19,920	8,908
Total stockholders' equity	3,311,257	3,567,991
Total liabilities, minority interest, and stockholders' equity	\$ 4,340,793	\$4,575,911

KLA-Tencor Corporation Condensed Consolidated Unaudited Statements Of Operations

	Three months ended		Nine months ended		
(In thousands except per share data)		March 31 2006	March 31 2007	March 31 2006	
Revenues:					
Product	\$ 607,390	\$ 429,068	\$ 1,682,619	\$ 1,230),201
Service	108,818	90,580	312,222	261	1,390
Total revenues	716,208	519,648	1,994,841	1,491	,591
Costs and operating expenses:					
Cost of revenues*	306,751	226,575	874,642	657	7,927
Engineering, research and development*	106,265	97,633	313,659	295	5,210
Selling, general and administrative*	120,537	110,513	391,536	303	3,543
Total costs and operating expenses	533,553	434,721	1,579,837	1,256	5,680
Income from operations	182,655	84,927	415,004	234	4,911
Interest income and other, net	20,817	17,225	65,931	47	7,986
Income before income taxes and minority interest	203,472	102,152	480,935	282	2,897
Provision for income taxes*	48,546	6,388	101,551	37	7,041
Income before minority interest	154,926	95,764	379,384	245	5,856
Minority interest	(141)	920	1,372	2	2,920
Net income	\$ 154,785	\$ 96,684	\$ 380,756	\$ 248	8,776
Net income per share:					
Basic	\$ 0.78	\$ 0.48	\$ 1.91	\$	1.25
Diluted	\$ 0.76	\$ 0.47	\$ 1.87	\$	1.22
Weighted average number of shares:					
Basic	197,930	199,876	199,053		8,498
Diluted	203,474	205,361	203,976	204	4,294
*includes the following amounts related to equity awards:					
Costs of revenues	\$ 6,629	\$ 6,198	\$ 23,218		9,649
Engineering, research and development	\$ 11,036	\$ 12,488	\$ 33,984		3,019
Selling, general and administrative	\$ 11,604	\$ 29,675	\$ 25,182		9,258
Provision for income taxes	\$ (9,349)	\$ (15,247)	\$ (25,596)	\$ (46	5,320)