

# FORM 4

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

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response...	0.5

### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * NICHOLS STUART J			2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) ____ Director ____ 10% Owner <input checked="" type="checkbox"/> Officer (give title below) _____ Other (specify below) VP and General Counsel		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 08/02/2004					
C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES								
(Street)			4. If Amendment, Date Original Filed(Month/Day/Year)			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		
SAN JOSE, CA 95130								
(City)	(State)	(Zip)	<b>Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</b>					

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock								1,753	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number. SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		(A)	(D)	Date Exercisable	Expiration Date				
Non-Qualified Stock Option (right to buy)	\$ 40.66	08/02/2004		A		2,250 <a href="#">(1)</a>	10/27/2004	08/02/2014	Common Stock	2,250	\$ 0	2,250	D	
Non-Qualified Stock Option (right to buy)	\$ 26.25						11/10/2001	11/10/2010	Common Stock	4,300		4,300	D	
Non-Qualified Stock Option (right to buy)	\$ 29.31						10/02/2002	10/02/2011	Common Stock	12,000		12,000	D	
Non-Qualified Stock Option (right to buy)	\$ 32.75						04/04/2002	04/04/2011	Common Stock	6,000		6,000	D	

Non-Qualified Stock Option (right to buy)	\$ 33.75							10/27/2000	10/27/2009	Common Stock	21,000		21,000	D
Non-Qualified Stock Option (right to buy)	\$ 34.67							11/08/2003	01/28/2013	Common Stock	6,500		6,500	D
Non-Qualified Stock Option (right to buy)	\$ 37.05							11/08/2003	11/08/2012	Common Stock	3,250		3,250	D
Non-Qualified Stock Option (right to buy)	\$ 44.6875							08/13/2001	08/13/2010	Common Stock	12,000		12,000	D
Non-Qualified Stock Option (right to buy)	\$ 45.16							10/27/2004	04/26/2014	Common Stock	3,750		3,750	D
Non-Qualified Stock Option (right to buy)	\$ 51.229							11/08/2003	07/30/2013	Common Stock	3,250		3,250	D
Non-Qualified Stock Option (right to buy)	\$ 53.86							10/27/2004	10/27/2013	Common Stock	6,000		6,000	D
Non-Qualified Stock Option (right to buy)	\$ 58.10							10/27/2004	01/27/2014	Common Stock	3,000		3,000	D

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
NICHOLS STUART J C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130			VP and General Counsel	

## Signatures

Stuart J. Nichols		08/09/2004
<small>**Signature of Reporting Person</small>		<small>Date</small>

## Explanation of Responses:

\* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Form filings are completed by the Company on behalf of the officer listed. Due to an administrative error, this grant of options is being reported late.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.