FORM 4

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

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

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

(Print or Ty	pe Response	s)		1											
1. Name and Address of Reporting Person * Bell Bobby R				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				
(Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE				3. Date of Earliest Transaction (Month/Day/Year) 08/06/2015							X Officer (give title below) Other (specify below) Executive Vice President				pelow)
(Street) MILPITAS, CA 95035				4. If Amendment, Date Original Filed(Month/Day/Year)						6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting Person					
(City) (State) (Zip) Table I - Non-Derivative Securities Acqui							ired, Disposed of, or Beneficially Owned								
1.Title of Security (Instr. 3)			2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Datany	ĺ	Code (Instr. 8)		4. Securities Acquir (A) or Disposed of (Instr. 3, 4 and 5)		of (D)	Beneficia Reported	nt of Securities ally Owned Following Transaction(s)		Ownership Form:	Beneficial
			(Month/Day/Year)	(ear)	Code	V	Amour	(A) or (D)	Price	(Instr. 3 a	inu 4)		Direct (D) or Indirect (I) (Instr. 4)		
Common Stock		08/06/2015			M		3,338		\$ 0 (1)	27,818.917		D			
Common Stock		08/06/2015			F		1,742 (2)		\$ 51.95	26,076.917			D		
Common Stock - Restricted Stock Units (3)		08/06/2015			A		17,65 (4)	0 A	\$ 0	64,499 ⁽⁵⁾			D		
Reminder:	Report on a s	separate line fo		Derivative Sec	uritie	es Acquii	Pers cont the t	ons what ained it form dis	no responding this for splays a	orm are curren	not requally valid		formation spond unle trol numbe	ess	1474 (9-02)
1. Title of	2.	3. Transactio		e.g., puts, calls	5, wai			, conver ate Exer			tle and	8. Price of	9. Number	of 10.	11. Natur
Derivative Security (Instr. 3) Conversi or Exerci Price of Derivative Security		Date (Month/Day/	Execution Da	te, if Transact Code	ion No II S S A ((n Number		and Expiration Date (Month/Day/Year)		Amo Undo Secu	ount of erlying rrities r. 3 and	Derivative Security (Instr. 5)	Derivative Securities Beneficially Owned Following Reported Transaction(s (Instr. 4)	Owners Form of Derivat Security Direct (or Indir	hip of Indirect Beneficial Ownersh (Instr. 4)
				Code	V	(A) (D)		e rcisable	Expiration Date	Title	Amount or Number of Shares				

Reporting Owners

	Relationships						
Reporting Owner Name / Address	Director	10% Owner	Officer	Other			
Bell Bobby R C/O KLA-TENCOR CORPORATION ONE TECHNOLOGY DRIVE MILPITAS, CA 95035			Executive Vice President				

Signatures

Brian M. Martin as Attorney-In-Fact for Bobby R. Bell	08/10/2015		
**Signature of Reporting Person	Date		

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).
- On August 6, 2013, the Reporting Person received a grant of restricted stock units ("RSUs") covering 13,350 shares of KLA-Tencor common stock. On August 6, 2015, the Reporting Person vested in twenty-five percent (25%) of such RSUs.
 - Pursuant to such terms of the August 6, 2013 RSU grant, 1,742 shares of KLA-Tencor common stock were automatically withheld at vesting to cover required tax
- (2) withholding. The fair market value of KLA-Tencor common stock used for purposes of calculating the number of shares to be withheld was the closing price of KLA-Tencor common stock as reported on the NASDAQ Stock Market on such vesting date.
- (3) Each RSU represents a contingent right to receive one share of KLA-Tencor common stock.
- Represents a grant of RSUs subject only to service-vesting requirements. The Reporting Person will vest twenty-five percent (25%) of the RSUs on the one-year anniversary of the grant date (August 6, 2016) and an additional twenty-five percent (25%) on each annual anniversary of the grant date thereafter through August 6, 2019, in each case subject to the Reporting Person continuing as a service provider to KLA-Tencor through the applicable vesting date. The shares of common stock will be issued as the RSUs
- vest.

 Does not include performance-based RSUs, if any, held by the Reporting Person for which an assessment has not yet been made regarding the achievement of the applicable

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

performance goals. Any such holdings will be reported on a Form 4 within two business days of the date such assessment is made.

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.