

**INITIAL STATEMENT OF 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 Type Responses)

1. Name and Address of Reporting Person* Higgins Bren D.  (Last) (First) (Middle) ONE TECHNOLOGY DRIVE  (Street)  MILPITAS, CA 95035  (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 08/09/2013	3. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) EVP & Chief Financial Officer	5. 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

**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock - Restricted Stock Units (1)	32,830 (2)	D	

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

SEC 1473 (7-02)

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.

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Non-Qualified Stock Option (Right to Buy)	(3)	01/27/2014	Common Stock	280	\$ 58.1	D	

**Reporting Owners**

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Higgins Bren D. ONE TECHNOLOGY DRIVE MILPITAS, CA 95035			EVP & Chief Financial Officer	

**Signatures**

Jeffrey S. Eisenberg as Attorney-in-Fact for Bren D. Higgins	08/16/2013
**Signature of Reporting Person	Date

**Explanation of Responses:**

- \* If the form is filed by more than one reporting person, see Instruction 5(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) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- (2) 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 performance goals. Any such holdings will be reported on Form 4 within two business days of the date such assessment is made.  
Represents a stock option granted on January 27, 2004, granting the Reporting Person the right to purchase up to 280 shares of KLA-Tencor common stock. 56 of the shares subject to this stock option vested on October 27, 2004, and 1/48th of the remaining 224 shares subject to this stock option vested on November 27, 2004 and each monthly anniversary thereafter until October 27, 2008.

