KLA TENCOR CORP

Check this box

if no longer

subject to

Section 16.

Form 4 or

obligations

may continue.

See Instruction

Form 5

Form 4

March 30, 2007

FORM 4

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

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OMB APPROVAL

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF **SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section

30(h) of the Investment Company Act of 1940

1(b).

(Last)

(Print or Type Responses)

1. Name and Address of Reporting Person * **URBANEK LIDA**

2. Issuer Name and Ticker or Trading

5. Relationship of Reporting Person(s) to Issuer

Symbol KLA TENCOR CORP [KLAC]

(First) (Middle) 3. Date of Earliest Transaction

_X__ Director Officer (give title

10% Owner Other (specify

C/O KLA-TENCOR CORPORATION, 160 RIO **ROBLES**

> (Street) 4. If Amendment, Date Original

> > Filed(Month/Day/Year)

(Month/Day/Year)

03/29/2007

6. Individual or Joint/Group Filing(Check

(Check all applicable)

Applicable Line)

X Form filed by One Reporting Person Form filed by More than One Reporting

1,271,414 I

SAN JOSE, CA 95130

Common Stock

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of Security	2. Transaction Date	2A. Deemed	3.	4. Securi	ties		5. Amount of	6.	7. Nature of
(Instr. 3)	(Month/Day/Year)	Execution Date, if	Transaction	nsactionAcquired (A) or			Securities	Ownership	Indirect
		any	Code	Disposed	of (D))	Beneficially	Form:	Beneficial
		(Month/Day/Year)	(Instr. 8)	(Instr. 3,	4 and	5)	Owned	Direct (D)	Ownership
							Following	or Indirect	(Instr. 4)
					(4)		Reported	(I)	
					(A)		Transaction(s)	(Instr. 4)	
			Code V	Amount	or (D)	Price	(Instr. 3 and 4)		
Common						4.0			
Stock-Restricted	03/29/2007		A	935	A	\$0	1,935	D	
Stock Units (1)	0312712001		7 1	733	2 L	(2)	1,755	D	
Common Stock							1,946	D	
Common Stock							29,555	I	Family Foundation

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

by Trust

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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	2.	3. Transaction Date			7. Title and Amount of Underlying Securities				
Derivative Security (Instr. 3)	Conversion or Exercise Price of Derivative Security	(Month/Day/Year)	Execution Date, if any (Month/Day/Year)	Transaction Code (Instr. 8)	of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	(Month/Day/Y	piration Date onth/Day/Year)		4)
				Code V	(A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Non-Qualified Stock Option (right to buy)	\$ 13.44					07/22/1999	07/22/2008	Common Stock	5,000
Non-Qualified Stock Option (right to buy)	\$ 17.59					11/17/1998	11/17/2008	Common Stock	6,666
Non-Qualified Stock Option (right to buy)	\$ 26.25					11/10/2000	11/10/2010	Common Stock	10,000
Non-Qualified Stock Option (right to buy)	\$ 29					07/22/1998	07/22/2007	Common Stock	5,000
Non-Qualified Stock Option (right to buy)	\$ 37.05					11/08/2002	11/08/2012	Common Stock	10,000
Non-Qualified Stock Option (right to buy)	\$ 40.24					05/11/2005	05/11/2015	Common Stock	2,500
Non-Qualified Stock Option (right to buy)	\$ 40.68					10/18/2004	10/18/2014	Common Stock	2,500
Non-Qualified Stock Option (right to buy)	\$ 41.45					08/01/2006	08/01/2013	Common Stock	1,250
Non-Qualified	\$ 44.76					01/25/2005	01/25/2015	Common	2,500

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Stock Option (right to buy)				Stock	
Non-Qualified Stock Option (right to buy)	\$ 46.28	11/16/1999	11/16/2009	Common Stock	10,000
Non-Qualified Stock Option (right to buy)	\$ 47.23	11/09/2001	11/09/2011	Common Stock	10,000
Non-Qualified Stock Option (right to buy)	\$ 47.86	05/02/2006	05/02/2013	Common Stock	1,250
Non-Qualified Stock Option (right to buy)	\$ 49.99	11/04/2005	11/04/2012	Common Stock	1,250
Non-Qualified Stock Option (right to buy)	\$ 50.39	02/14/2007	02/14/2014	Common Stock	2,500
Non-Qualified Stock Option (right to buy)	\$ 51.35	08/02/2005	08/02/2015	Common Stock	2,500
Non-Qualified Stock Option (right to buy)	\$ 51.98	01/31/2006	01/31/2013	Common Stock	1,250
Non-Qualified Stock Option (right to buy)	\$ 59.44	11/05/2003	11/05/2013	Common Stock	10,000

Reporting Owners

Reporting Owner Name / Address	Relationships						
•	Director	10% Owner	Officer	Other			
URBANEK LIDA C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130	X						

Signatures

By: John Kispert For: Lida

Urbanek 03/30/2007

**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).

Reporting Owners 3

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- (1) Each restricted stock unit represents a contingent right to receive one share of KLAC common stock.
- (2) The restricted stock units will fully vest one year from date of grant and will not be deliverable until three years from the date of grant. 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.