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

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 Typ | pe Response | s) | | | | | | | | | | | | | | | | |
|--|---|--|-----------------------|--------------------------------|--|-----------------|---------|--|----------------------------------|-----------------------------|--|---|-----------------------|---|--|--|---|--------------------------------|
| Name and Address of Reporting Person* Higgins Bren D. | | | | | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC] | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)Director10% Owner | | | | | | | |
| (Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 09/07/2018 | | | | | | X Officer (give title below) Other (specify below) EVP & Chief Financial Officer | | | | | | | |
| (Street) MILPITAS, CA 95035 | | | | 4. If | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | | | | _X_ F | 6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting PersonForm filed by More than One Reporting Person | | | | | | |
| (City) (State) (Zip) | | | | | Table I - Non-Derivative Securities Acqu | | | | | | uired, | ired, Disposed of, or Beneficially Owned | | | | | | |
| (Instr. 3) Da | | 2. Transaction Date (Month/Day/Year) | Execu | , | | Code (Instr. 8) | | tion 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) | | | Following | 6. Ownership Form: | | Beneficial | |
| | | | | (Mon | th/Day/Yea | | Code | V | Amount | (A) or (D) | Price | | (Instr. 3 and 4) | | or In | Ownershi r Indirect (Instr. 4) nstr. 4) | | |
| Common | Stock | | 09/07/2018 | | | | S | | 1,418 (1) | D | \$ 106.6 | 1,6 | 1,669 | | | D | | |
| Common Stock - Restricted Stock Units (2) | | | | | | | | | | | | 64, | 64,395 ⁽³⁾ | | | D | | |
| Reminder: I | Report on a s | separate line f | or each class of secu | Deriva | ative Secur | ties A | equir | Person the | sons wh tained in form dis | o responding this is splays | form a a curr Beneficia | re not ently v ally Ov | requ valid | | formation spond unleader | | SEC 14 | 74 (9-02) |
| Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transactic Date (Month/Day/ | Year) Execution D | 4. Transaction Code (Instr. 8) | | 5. | | and Expiration Date (Month/Day/Year) | | | 7. An Un Sec | 7. Title and Amount of Underlying Securities (Instr. 3 and | | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction ((Instr. 4) | y E E E E E E E E E E E E E E E E E E E | 0. Dwnership Form of Derivative Security: Direct (D) or Indirect I) Instr. 4) | Beneficial Ownershi (Instr. 4) |
| | | | | | Code V | (A) | (A) (D) | | | Expirat Date | tion Tit | or Nu of | mber ares | | | | | |
| Repor | ting O | wners | | | | | | | | | | | | | | | | |

| | | | | Relationships | | | | | | |
|--|------------------|----------|--------------|-------------------------------|-------|--|--|--|--|--|
| Reporting Owner | r Name / Address | Director | 10% Owner | Officer | Other | | | | | |
| Higgins Bren D. C/O KLA-TENCOI ONE TECHNOLO MILPITAS, CA 95 | GY DRIVE | | | EVP & Chief Financial Officer | | | | | | |

Signatures

| /s/ Teri A. Little as Attorney-in-Fact for Bren D. Higgins | 09/11/2018 |
|--|------------|
| **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).
- (1) This sale was effected pursuant to the terms of a Rule 10b5-1 trading plan adopted by the Reporting Person on January 30, 2018.
- (2) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- (3) 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 a Form 4 within two business days of the date such assessment is made.

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.