| SEC F | orm 4 |
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## FORM 4

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| $\Box$ | Check this box if no longer subject to<br>Section 16. Form 4 or Form 5<br>obligations may continue. See |
|--------|---|
| U      | obligations may continue. See<br>Instruction 1(b).  |

# STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

| OMB APPROVAL         |           |  |  |  |  |  |  |  |  |
|----------------------|-----------|--|--|--|--|--|--|--|--|
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| hours per response.  | 0.5       |  |  |  |  |  |  |  |  |

| 1. Name and Address of Reporting Person*          Smith William Maxwell         (Last)       (First)         (Last)       (First)         7000 SHORELINE COURT, SUITE 100 |               | (Middle)       | 2. Issuer Name <b>and</b> Ticker or Trading Symbol FLUIDIGM CORP [ FLDM ] 3. Date of Earliest Transaction (Month/Day/Year) 07/09/2012 |                        | tionship of Reporting Pers<br>all applicable)<br>Director<br>Officer (give title<br>below)<br>EVP, Legal Affair | 10% Owner<br>Other (specify<br>below) |
|---|---------------|----------------|---|------------------------|---|---------------------------------------|
| (Street)<br>SOUTH SAN<br>FRANCISCO<br>(City)  | CA<br>(State) | 94080<br>(Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year)  | 6. Indiv<br>Line)<br>X | idual or Joint/Group Filing<br>Form filed by One Repo<br>Form filed by More than<br>Person                      | rting Person                          |

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

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Transaction<br>Code (Instr. |   | 4. Securities Acquired (A) or<br>Disposed Of (D) (Instr. 3, 4 and<br>5) |               |         |                                    | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---------------------------------|--|---|-----------------------------|---|---|---------------|---------|------------------------------------|---|---|
|                                 |  |   | Code                        | v | Amount  | (A) or<br>(D) | Price   | Transaction(s)<br>(Instr. 3 and 4) |   | (1130.4)  |
| Common Stock                    | 07/09/2012                                 |   | М                           |   | 3,000   | A             | \$1.82  | 52,545                             | D   |   |
| Common Stock                    | 07/09/2012                                 |   | <b>S</b> <sup>(1)</sup>     |   | 3,000   | D             | \$14.53 | 49,545                             | D   |   |

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

| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | of Exp |       | Expiration Da       | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                 | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |     | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|--------|-------|---------------------|--|-----------------|--|-----|--|--|--|
|   |   |  |   | Code                         | v | (A)    | (D)   | Date<br>Exercisable | Expiration<br>Date   | Title           | Amount<br>or<br>Number<br>of<br>Shares   |     |  |  |  |
| Employee<br>Stock<br>Option<br>(Right to<br>Buy)    | \$1.82  | 07/09/2012                                 |   | М                            |   |        | 3,000 | (2)                 | 07/15/2013   | Common<br>Stock | 3,000  | \$0 | 3,412  | D  |  |

Explanation of Responses:

1. The sales reported by Mr. Smith were effected pursuant to a Rule 10b5-1 trading plan adopted on September 6, 2011.

2. The Option fully vested on April 1, 2007.

#### /s/ Valerie Barnett, attorney-in-07/11/2012

Date

fact

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\*\* Signature of Reporting Person

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

\* 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).

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

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 Number.