FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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

Name and Address of Reporting Person* Peoples Oliver P					2. Issuer Name and Ticker or Trading Symbol METABOLIX, INC. [MBLX]							5. Relationship of Reporting Person(s) to Issuer (Check all applicable)					
<u>Peoples Offver P</u>									-			X Directo			10% Ow	·	
(Last)	(F	irst)	(Middle)		Date of Earliest Transaction (Month/Day/Year)							X Officer below)	(give title		Other (s below)	pecify	
C/O METABOLIX, INC.						05/28/2009							VP Research, CSO				
21 ERIE STREET																	
					4. If Amendment, Date of Original Filed (Month/Day/Year)							6. Individual or Joint/Group Filing (Check Applicable Line)					
(Street) CAMBRIDGE MA 02139												X Form filed by One Reporting Person					
CAMBRIDGE WIT 02100											Form filed by More than One Reporting Person						
(City)	City) (State) (Zip)									Persor	ļ						
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																	
1. Title of Security (Instr. 3) 2. Transac								3. 4. Securities Acquir				5. Amou				7. Nature	
				ate Month/Day	/Year)	Execution Date, if any (Month/Day/Yea		Code (Instr. 5)		d Of (D) (Ins	str. 3, 4 and	Benefici	Beneficially Owned Following		(D) or Indirect	of Indirect Beneficial Ownership	
						(Month Day) real		` ` 		(A) or	Price	Reported Transact	ion(s)	", "		(Instr. 4)	
							Code V	Amount	(A) or (D) Price		(Instr. 3	and 4)					
Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)																	
					s, cal	_				1							
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date if any (Month/Day/Ye	Cod	saction e (Instr.			6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)		10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Cod	e V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares						
Stock Option (right to buy)	\$6.93	05/28/2009		A		40,000		(1)	05/28/2019	Common Stock	40,000	\$0	40,000	0	D		

Explanation of Responses:

1. This stock option will vest and become exercisable in 16 equal quarterly installments over a period of four years from the date of grant.

/s/ Sarah P. Cecil, attorney-in-

fact

** Signature of Reporting Person Date

06/01/2009

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.