

Core-Mark Holding Company, Inc.  
 Form 4  
 August 13, 2008

**FORM 4**

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

OMB APPROVAL

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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, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 Prokop Basil P

2. Issuer Name and Ticker or Trading Symbol  
 Core-Mark Holding Company, Inc.  
 [CORE]

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)

(Last) (First) (Middle)  
 395 OYSTER POINT BLVD.,  
 SUITE 415  
 (Street)

3. Date of Earliest Transaction  
 (Month/Day/Year)  
 08/12/2008

\_\_\_\_ Director  
 \_\_\_\_ Officer (give title below)  
 \_\_\_\_ 10% Owner  
 \_\_\_\_ Other (specify below)  
 President of Canada Distributi

SOUTH SAN  
 FRANCISCO, CA 94080

(City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

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

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				(A) or (D)	Price		
Coremark Common Stock	08/12/2008		M	32,389	A \$ 15.5	32,389	D
Coremark Common Stock	08/12/2008		S	70	D \$ 29.41	32,319	D
Coremark Common Stock	08/12/2008		S	230	D \$ 29.39	32,089	D
	08/12/2008		S	300	D \$ 29.38	31,789	D

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Coremark Common Stock								
Coremark Common Stock	08/12/2008		S	100	D	\$ 29.35	31,689	D
Coremark Common Stock	08/12/2008		S	31,689	D	\$ 29.0512	0	D
Coremark Common Stock	08/13/2008		M	40,035	A	\$ 15.5	40,035	D
Coremark Common Stock	08/13/2008		M	1,002	A	\$ 0	41,037	D
Coremark Common Stock	08/13/2008		S	40,035	D	\$ 28.707	1,002	D
Coremark Common Stock	08/13/2008		S	1,002	D	\$ 28.68	0	D

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

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(9-02)

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

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/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)
				Code	V (A) (D)	Date Exercisable Expiration Date	Title Amount or Number of Shares
04LTIP plan grtd 8-23-2004 NQ	\$ 15.5	08/12/2008		M	32,389	08/23/2005 08/23/2011	Coremark Common Stock 32,389
	\$ 15.5	08/13/2008		M	40,035	08/23/2005 08/23/2011	40,035

04LTIP  
 plan grtd  
 8-23-2004  
 NQ

Coremark  
 Common  
 Stock

Restricted  
 Stock  
 Units  
 07LTIP

\$ 0

08/13/2008

M

1,002

07/02/2008

07/01/2017

Coremark  
 Common  
 Stock

1,002

## Reporting Owners

### Reporting Owner Name / Address

### Relationships

Director    10% Owner    Officer    Other

Prokop Basil P  
 395 OYSTER POINT BLVD., SUITE 415  
 SOUTH SAN FRANCISCO, CA 94080

President of Canada Distributi

## Signatures

S.Loretz-Congdon,  
 POA

08/13/2008

\_\_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).

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

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