

# CLIFFS NATURAL RESOURCES INC.

Reported by  
**BOOR WILLIAM C**

## FORM 4

(Statement of Changes in Beneficial Ownership)

Filed 03/10/10 for the Period Ending 03/08/10

Address	200 PUBLIC SQUARE STE. 3300 CLEVELAND, OH 44114-2315
Telephone	216-694-5700
CIK	0000764065
Symbol	CLF
SIC Code	1000 - Metal Mining
Industry	Metal Mining
Sector	Basic Materials
Fiscal Year	12/31

# FORM 4

[ ] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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

OMB APPROVAL  
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**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(f) of the  
Investment Company Act of 1940

1. Name and Address of Reporting Person *			2. Issuer Name and Ticker or Trading Symbol			5. Relationship of Reporting Person(s) to Issuer (Check all applicable)		
<b>Boor William C</b>			<b>CLIFFS NATURAL RESOURCES INC. [ CLF ]</b>			<input type="checkbox"/> Director <span style="float:right"><input type="checkbox"/> 10% Owner</span>		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (MM/DD/YYYY)			<input checked="" type="checkbox"/> <b>X</b> Officer (give title below) <span style="float:right"><input type="checkbox"/> Other (specify below)</span>		
<b>200 PUBLIC SQUARE, SUITE 3300</b>			<b>3/8/2010</b>			<b>Sr. Vice Pres., Bus. Devel.</b>		
(Street)			4. If Amendment, Date Original Filed (MM/DD/YYYY)			6. Individual or Joint/Group Filing (Check Applicable Line)		
<b>CLEVELAND, OH 44114-2315</b>						<input checked="" type="checkbox"/> <b>X</b> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		
(City)	(State)	(Zip)						

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

1. Title of Security (Instr. 3)	2. Trans. Date	2A. Deemed Execution Date, if any	3. Trans. 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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	3/8/2010		A	(1)	2380	A	\$0.00	25656.2775 (2)	D	
Common Stock								16577	I	VNQDC (3)

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

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. 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		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 of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
					(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

**Explanation of Responses:**

- (1) Reflects the number of restricted stock units granted to the Reporting Person on March 8, 2010 for the Performance Period January, 2010 to December, 2012.
- (2) The Board of Directors of Cliffs Natural Resources Inc. (the "Company") declared a dividend of \$0.0875 per share, payable to all holders of record as of February 16, 2010 of common stock payable on March 1, 2010. The amount shown reflects 7.0166 shares credited to the Reporting Person pursuant to the Company's Dividend Reinvestment and Stock Purchase Plan.
- (3) Held for the benefit of the Reporting Person by the Cliffs Natural Resources Inc. 2005 Voluntary Non-Qualified Deferred Compensation Plan (VNQDC).

**Reporting Owners**

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
<b>Boor William C 200 PUBLIC SQUARE</b>			<b>Sr. Vice Pres., Bus. Devel.</b>	

SUITE 3300 CLEVELAND, OH 44114-2315				
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**Signatures**

**Traci L. Forrester by Power of Attorney**

**3/10/2010**

\*\* Signature of Reporting Person

Date

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 control number.