

CLIFFS NATURAL RESOURCES INC.

Reported by
PHILLIPS ROGER

FORM 4

(Statement of Changes in Beneficial Ownership)

Filed 05/13/10 for the Period Ending 05/11/10

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
OMB Number: 3235-0287
Expires: February 28, 2011
Estimated average burden hours per response... 0.5

**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)		
PHILLIPS ROGER			CLIFFS NATURAL RESOURCES INC. [CLF]			<input checked="" type="checkbox"/> Director _____ 10% Owner _____ Officer (give title below) _____ Other (specify below)		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (MM/DD/YYYY)					
ARMOUR ROAD			5/11/2010					
(Street)			4. If Amendment, Date Original Filed (MM/DD/YYYY)			6. Individual or Joint/Group Filing (Check Applicable Line)		
REGINA, A9 S4P 3C7						<input checked="" type="checkbox"/> Form filed by One Reporting Person _____ 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	5/11/2010		A	(1)	1321	A	\$56.79	38734.4616	D	

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)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

(1) Reflects the number of Common Shares credited to the account of the Reporting Person on the Annual Meeting of Shareholders date, May 11, 2010 (Annual Equity Grant), issued pursuant to the Cliffs Natural Resources Inc. Non-Employee Directors' Compensation Plan (as Amended and Restated December 31, 2008). Directors >69 years of age receive common shares without restriction.

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
PHILLIPS ROGER ARMOUR ROAD REGINA, A9 S4P 3C7	X			

Signatures

Traci L. Forrester by Power of Attorney

5/13/2010

** 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.