

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 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person * Kirsch James F			2. Issuer Name and Ticker or Trading Symbol CLIFFS NATURAL RESOURCES INC. [CLF]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)			
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 10/01/2010			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person			
1000 LAKESIDE AVENUE CLEVELAND, OH 44114			4. If Amendment, Date Original Filed (Month/Day/Year)						
(City)	(State)	(Zip)	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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price		
Common Stock	10/01/2010		A (1)		75.0976	A	\$ 66.58	1,827.8578 (2)	D

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

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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)	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)
						Date Exercisable	Expiration Date					
				Code	V	(A)	(D)					

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Kirsch James F 1000 LAKESIDE AVENUE CLEVELAND, OH 44114	X			

Signatures

Traci L. Forrester by Power of Attorney		10/04/2010
**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).

Reflects number of Common Shares credited to the account of the Reporting Person in payment of the Reporting Person's Required Quarterly Retainer for the fourth quarter (1) of 2010 under the Cliffs Natural Resources Inc. Nonemployee Directors Compensation Plan ("Plan"). Full shares earned pursuant to the Plan in 2010 will be issued effective January 2, 2011.

(2) Includes 3.353 shares of Restricted Stock acquired September 7, 2010 pursuant to a dividend reinvestment feature of the Cliffs Natural Resources Inc. Plan.

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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