

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM S-8

**REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933**

Cliffs Natural Resources Inc.

(Exact Name of Registrant as Specified in Its Charter)

Ohio
(State or Other Jurisdiction
of Incorporation or Organization)

34-1464672
(I.R.S. Employer Identification No.)

200 Public Square
Suite 3300
Cleveland, Ohio 44114-2315
(Address of Principal Executive Offices) (Zip Code)

**Amended and Restated Cliffs
2007 Incentive Equity Plan, as amended**
(Full Title of the Plan)

P. Kelly Tompkins
Executive Vice President — Legal, Government Affairs and Sustainability
and Chief Legal Officer
Cliffs Natural Resources Inc.
200 Public Square, Suite 3300
Cleveland, Ohio 44114-2315
(216) 694-5700
(Name, Address, and Telephone Number, Including Area Code, of Agent For Service)

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered ⁽¹⁾⁽²⁾	Proposed Maximum Offering Price Per Share ⁽³⁾	Proposed Maximum Aggregate Offering Price ⁽³⁾	Amount of Registration Fee
Common Shares, par value \$0.125	9,000,000	\$96.185	\$865,665,000	\$100,504

- (1) Represents the maximum number of common shares, par value \$0.125 per share (“*Common Shares*”), of Cliffs Natural Resources Inc. (the “*Registrant*”) issuable pursuant to the Amended and Restated Cliffs 2007 Incentive Equity Plan, as amended (the “*Plan*”) being registered hereon.
- (2) Pursuant to Rule 416 of the Securities Act of 1933 (the “*Securities Act*”), this Registration Statement also covers such additional Common Shares as may become issuable pursuant to the anti-dilution provisions of the Plan.
- (3) Estimated solely for calculating the amount of the registration fee, pursuant to paragraphs (c) and (h) of Rule 457 of the General Rules and Regulations under the Securities Act, on the basis of the average of the high and low sale prices of the Common Shares on the New York Stock Exchange on March 1, 2011, within five business days prior to filing.

EXPLANATORY NOTE

The contents of the registration statement on Form S-8 (Registration No. 333-165021), as filed with the Securities and Exchange Commission (the "**Commission**") on February 22, 2010 to register Common Shares to be issued under the Plan, are hereby incorporated by reference in this Registration Statement. This Registration Statement on Form S-8 is filed for the purpose of registering an additional 9,000,000 Common Shares under the Plan.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 8. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
4.1	Second Amended Articles of Incorporation of Cliffs Natural Resources Inc. as filed with the Secretary of State of the State of Ohio on July 13, 2010 (incorporated herein by reference to Exhibit 3(a) to the Registrant's Current Report on Form 8-K (Commission No. 001-08944) filed with the Commission on July 15, 2010)
4.2	Regulations of Cleveland-Cliffs Inc (incorporated herein by reference to Exhibit 3(b) to the Registrant's Annual Report on Form 10-K (Commission No. 001-08944) filed with the Commission on February 2, 2001)
4.3	Amended and Restated Cliffs 2007 Incentive Equity Plan (incorporated herein by reference to Exhibit 10(a) to the Registrant's Current Report on Form 8-K (Commission No. 001-08944) filed with the Commission on May 14, 2010)
4.4	First Amendment to Amended and Restated Cliffs 2007 Incentive Equity Plan (incorporated herein by reference to Exhibit 10(rr) to the Registrant's Annual Report on Form 10-K (Commission No. 001-08944) filed with the Commission on February 17, 2011)
4.5	Form of Common Share Certificate (incorporated herein by reference to Exhibit 4(i) to the Registrant's Annual Report on Form 10-K (Commission No. 001-08944) filed with the Commission on February 17, 2011)
5.1	Opinion of Counsel
23.1	Consent of Independent Registered Public Accounting Firm — Deloitte & Touche LLP
23.2	Consent of Counsel (included in Exhibit 5.1)
24.1	Power of Attorney

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Cleveland, state of Ohio, on this 7th day of March, 2011.

CLIFFS NATURAL RESOURCES INC.

By: /s/ Terrance M. Paradie
Terrance M. Paradie,
Senior Vice President, Corporate Controller and
Chief Accounting Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>*</u> Joseph A. Carrabba	Chairman, President, Chief Executive Officer and Director (Principal Executive Officer)	March 7, 2011
<u>*</u> Laurie Brlas	Executive Vice President, Finance and Administration and Chief Financial Officer (Principal Financial Officer)	March 7, 2011
<u>/s/ Terrance M. Paradie</u> Terrance M. Paradie	Senior Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	March 7, 2011
<u>*</u> Ronald C. Cambre	Director	March 7, 2011
<u>*</u> Susan M. Cunningham	Director	March 7, 2011
<u>*</u> Barry J. Eldridge	Director	March 7, 2011
<u>*</u> Andrés R. Gluski	Director	March 7, 2011
<u>*</u> Susan M. Green	Director	March 7, 2011
<u>*</u> Janice K. Henry	Director	March 7, 2011

Signatures	Title	Date
*	Director	March 7, 2011
James F. Kirsch		
*	Director	March 7, 2011
Francis R. McAllister		
*	Director	March 7, 2011
Roger Phillips		
*	Director	March 7, 2011
Richard K. Riederer		
	Director	
Richard A. Ross		
*	Director	March 7, 2011
Alan Schwartz		

* The undersigned, by signing his name hereto, does sign and execute this registration statement on Form S-8 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.1 on behalf of the Registrant.

By: /s/ Terrance M. Paradie
Terrance M. Paradie, as Attorney-in-Fact

EXHIBIT INDEX

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JONES DAY

NORTH POINT • 901 LAKESIDE AVENUE • CLEVELAND, OHIO 44114-1190
TELEPHONE: (216) 586-3939 • FACSIMILE: (216) 579-0212

March 7, 2011

Cliffs Natural Resources Inc.
200 Public Square, Suite 3300
Cleveland, OH 44114-2315Re: Registration Statement on Form S-8 Filed by Cliffs Natural Resources Inc.

Ladies and Gentlemen:

We have acted as counsel for Cliffs Natural Resources Inc., an Ohio corporation (the "**Company**"), in connection with the Company's Amended and Restated Cliffs 2007 Incentive Equity Plan, as amended (the "**Plan**"). In connection with the opinion expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of this opinion. Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein, we are of the opinion that the 9,000,000 common shares, par value \$0.125 per share, of the Company (the "**Shares**") that may be issued or delivered and sold pursuant to the Plan and the authorized forms of stock option, restricted share or other applicable award agreements thereunder will be, when issued or delivered and sold in accordance with such Plan and agreements, validly issued, fully paid and nonassessable, provided that the consideration for the Shares is at least equal to the stated par value thereof.

The opinion expressed herein is limited to the laws of the State of Ohio, as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction. In addition, we have assumed that the resolutions authorizing the Company to issue or deliver and sell the Shares pursuant to the Plan and the applicable award agreements will be in full force and effect at all times at which the Shares are issued or delivered or sold by the Company, and the Company will take no action inconsistent with such resolutions.

In rendering the opinion above, we have assumed that each award under the Plan will be approved by the Board of Directors of the Company or an authorized committee of the Board of Directors.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement on Form S-8 filed by the Company to effect registration of the Shares to be issued and sold pursuant to the Plan under the Securities Act of 1933 (the "**Act**"). In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Jones Day

ATLANTA • BEIJING • BRUSSELS • CHICAGO • CLEVELAND • COLUMBUS • DALLAS • DUBAI • FRANKFURT • HONG KONG • HOUSTON IRVINE •
LONDON • LOS ANGELES • MADRID • MEXICO CITY • MILAN • MOSCOW • MUNICH • NEW DELHI • NEW YORK • PARIS PITTSBURGH • SAN DIEGO •
SAN FRANCISCO • SHANGHAI • SILICON VALLEY • SINGAPORE • SYDNEY • TAIPEI • TOKYO • WASHINGTON

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our reports dated February 17, 2011, relating to the consolidated financial statements and financial statement schedule of Cliffs Natural Resources Inc. and subsidiaries, and the effectiveness of Cliffs Natural Resources Inc.'s internal control over financial reporting, appearing in the Annual Report on Form 10-K of Cliffs Natural Resources Inc. for the year ended December 31, 2010.

/s/ DELOITTE & TOUCHE LLP

Cleveland, Ohio

March 7, 2011

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each of the undersigned directors and officers of Cliffs Natural Resources Inc., an Ohio corporation (the "**Registrant**"), does hereby constitute and appoint each of Joseph A. Carrabba, Laurie Brlas, P. Kelly Tompkins and Terrance M. Paradie, or any of them, each acting alone, as the true and lawful attorney-in-fact or attorneys-in-fact for each of the undersigned, with full power of substitution and resubstitution, and in the name, place and stead of each of the undersigned, to execute and file (i) a Registration Statement on Form S-8 (the "**Form S-8 Registration Statement**") with respect to the registration under the Securities Act of 1933, of Common Shares of the Registrant issuable in connection with the Amended and Restated Cliffs 2007 Incentive Equity Plan, (ii) any and all amendments, including post-effective amendments, supplements and exhibits to the Form S-8 Registration Statement and (iii) any and all applications or other documents to be filed with the Securities and Exchange Commission or any state securities commission or other regulatory authority or exchange with respect to the securities covered by the Form S-8 Registration Statement, with full power and authority to do and perform any and all acts and things whatsoever necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the said director and/or officer, hereby ratifying and approving the acts of said attorneys and any of them and any such substitute.

This Power of Attorney may be executed in multiple counterparts, each of which will be deemed an original with respect to the person executing it.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands as of the 13th day of July, 2010.

/s/ Joseph A. Carrabba

Joseph A. Carrabba
Chairman of the Board, President, Chief Executive Officer and
Director

/s/ Laurie Brlas

Laurie Brlas
Executive Vice President and Chief Financial Officer

/s/ Terrance M. Paradie

Terrance M. Paradie
Vice President, Corporate Controller and Chief Accounting
Officer

/s/ Ronald C. Cambre

Ronald C. Cambre
Director

/s/ Susan M. Cunningham

Susan M. Cunningham
Director

/s/ Barry J. Eldridge

Barry J. Eldridge
Director

/s/ Susan M. Green

Susan M. Green
Director

/s/ Janice K. Henry

Janice K. Henry
Director

/s/ James F. Kirsch

James F. Kirsch
Director

/s/ Roger Phillips

Roger Phillips
Director

/s/ Alan Schwartz

Alan Schwartz
Director

/s/ Francis R. McAllister

Francis R. McAllister
Director

/s/ Richard K. Riederer

Richard K. Riederer
Director