CLIFFS NATURAL RESOURCES INC.

be Registered

Registered⁽¹⁾

10,000,000

Share⁽²⁾

\$3.56

Price⁽²⁾

\$35,600,000.00

\$4,136.72

Form S-8 August 20, 2015 As filed with the Securities and Exchange Commission on August 20, 2015 Registration No. ____-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 34-1464672 (State or Other Jurisdiction (I.R.S. Employer Identification No.) of Incorporation or Organization) 200 Public Square, Suite 3300, Cleveland, Ohio 44114-2315 (Address of Principal Executive Offices Including Zip Code) Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan (Full Title of the Plan) James D. Graham, Esq. Executive Vice President, Chief Legal Officer and Secretary Cliffs Natural Resources Inc. 200 Public Square, Suite 3300 Cleveland, Ohio 44114-2315 (216) 694-5700 (Name and 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 o (Do not check if a smaller reporting company) CALCULATION OF REGISTRATION FEE Title of Each Class of Proposed Maximum Proposed Maximum Amount of Registration Securities to Amount to be Offering Price Per Aggregate Offering Fee

Common Shares, \$0.125

par value per share

- Represents common shares, par value \$0.125 per share, ("Common Shares"), of Cliffs Natural Resources Inc. (the "Registrant") issuable pursuant to the Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan (the
- (1) "Plan") being registered hereon. Pursuant to Rule 416 under the Securities Act of 1933, as amended (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.
 - Estimated solely for the purposes of determining the amount of the registration fee, pursuant to paragraphs (c) and
- (2) (h) of Rule 457 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 August 17, 2015, a date that is within five business days prior to filing.

PART I

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

The information specified in Items 1 and 2 of Part I of the Form S-8 is omitted from this filing in accordance with the provisions of Rule 428 under the Securities Act and the introductory note to Part I of the Form S-8. The documents containing the information specified in Part I will be delivered to the participants in the Plan covered by this Registration Statement on Form S-8 (the "Registration Statement") as required by Rule 428(b)(1).

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant is subject to the informational and reporting requirements of Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and, in accordance therewith, files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). The following documents, which are on file with the Commission, are incorporated into this Registration Statement by reference:

The Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (Commission File No. 001-08944), filed with the Commission on February 25, 2015;

The Registrant's Quarterly Reports on Form 10-Q for the period ended March 31, 2015 (Commission File No.

(b)001-08944), filed with the Commission on May 6, 2015, and for the period ended June 30, 2015 (Commission File No. 001-08944), filed with the Commission on July 29, 2015;

The Registrant's Current Reports on Form 8-K (Commission File No. 001-08944), filed with the Commission on (c) January 6, 2015, January 28, 2015, February 2, 2015, March 19, 2015, March 19, 2015, March 23, 2015, March 25, 2015, April 1, 2015, April 2, 2015, May 20, 2015, May 21, 2015 and August 7, 2015; and

The description of the Common Shares contained in the Current Report on Form 8-K/A (Commission File No.

(d)001-08944) filed with the Commission on May 21, 2008, and all amendments and reports filed with the Commission for the purpose of updating such description.

All documents filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the effective date of this Registration Statement and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold, will be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents. Any statement contained in any document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant will indemnify, to the full extent permitted by law, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director, officer, employee or agent of the Registrant, or is or was serving at the Registrant's request as a director, trustee, officer, employee or agent of another corporation, domestic or foreign, nonprofit or for profit, partnership, joint venture, trust or other enterprise; provided, however, that the Registrant will indemnify any such agent (as opposed to any director, officer or employee) of the Registrant to an extent greater than required by law only if and to the extent that the Registrant's directors may, in their discretion, so determine. The indemnification the Registrant gives will not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any law, the Registrant's Third Amended Articles of Incorporation or any agreement, vote of shareholders or of disinterested directors or otherwise, both as to action in official capacities and as to action in another capacity while such person is a Registrant director, officer, employee or agent, and shall continue as to a person who has ceased to be a Registrant director, trustee, officer, employee or agent and shall inure to the benefit of heirs, executors and administrators of such a person.

The Registrant may, to the full extent permitted by law and authorized by the Registrant's directors, purchase and maintain insurance on behalf of any persons described in the paragraph above against any liability asserted against and incurred by any such person in any such capacity, or arising out of the status as such, whether or not the Registrant would have the power to indemnify such person against such liability.

Under the Ohio Revised Code, Ohio corporations are authorized to indemnify directors, officers, employees and agents within prescribed limits and must indemnify them under certain circumstances. The Ohio Revised Code does not provide statutory authorization for a corporation to indemnify directors, officers, employees and agents for settlements, fines or judgments in the context of derivative suits. However, it provides that directors (but not officers, employees or agents) are entitled to mandatory advancement of expenses, including attorneys' fees, incurred in defending any action, including derivative actions, brought against the director, provided that the director agrees to cooperate with the corporation concerning the matter and to repay the amount advanced if it is proved by clear and convincing evidence that the director's act or failure to act was done with deliberate intent to cause injury to the corporation or with reckless disregard for the corporation's best interests.

The Ohio Revised Code does not authorize payment of judgments to a director, officer, employee or agent after a finding of negligence or misconduct in a derivative suit absent a court order. Indemnification is permitted, however, to the extent such person succeeds on the merits. In all other cases, if a director, officer, employee or agent acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, indemnification is discretionary except as otherwise provided by a corporation's articles, code of regulations or by contract except with respect to the advancement of expenses of directors.

Under the Ohio Revised Code, a director is not liable for monetary damages unless it is proved by clear and convincing evidence that his or her action or failure to act was undertaken with deliberate intent to cause injury to the corporation or with reckless disregard for the best interests of the corporation. There is, however, no comparable provision limiting the liability of officers, employees or agents of a corporation. The statutory right to indemnification is not exclusive in Ohio, and Ohio corporations may, among other things, procure insurance for such persons. Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits		
Exhibit Number	Exhibit Description	
4.1	Third Amended Articles of Incorporation of Cliffs (as filed with the Secretary of State of the State of Ohio on May 13, 2013 (filed as Exhibit 3.1 to Cliffs' Form 8-K on May 13, 2013 and incorporated herein by reference)	
4.2	Regulations of Cliffs (filed as Exhibit 3.2 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference)	
4.3	Form of Common Share Certificate (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended September 30, 2014 and incorporated herein by reference)	
4.4	Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan	
5.1	Opinion of Jones Day	
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm	
23.2	Consent of Jones Day (included in Exhibit 5.1)	
24.1	Power of Attorney	

Item 9. Undertakings

- (a) The undersigned Registrant hereby undertakes:
- (1)To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
- (i)To include any prospectus required by Section 10(a)(3) of the Securities Act;
- (ii)To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.
- (iii)To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3)To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b)The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c)Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 20th day of August, 2015.

CLIFFS NATURAL RESOURCES INC.

By: /s/ James D. Graham

James D. Graham

Executive Vice President, Chief Legal Officer and Secretary

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities indicated as of August 20, 2015.

518111111	
*	Chairman, President, Chief Execu
C. L. Goncalves	Director (Principal Executive Off
*	Executive Vice President and Ch
P. K. Tompkins	(Principal Financial Officer)
*	Vice President, Corporate Contro
T. K. Flanagan	Accounting Officer (Principal Ac
*	Diagratus
J. T. Baldwin	Director

R. P. Fisher, Jr.

S. M. Green

Signature

J. A. Rutkowski, Jr.

J. S. Sawyer

M. D. Siegal

G. Stoliar

D. C. Taylor

cutive Officer and

fficer)

hief Financial Officer

oller and Chief accounting Officer)

Director

Director

Director

Director

Director

Director

Director

The undersigned, by signing his name hereto, does hereby sign this Registration Statement on Form S-8 on behalf of each of the officers and directors of the Registrant identified above pursuant to a Power of Attorney executed by the officers and directors identified above, which Power of Attorney is filed with this Registration Statement on Form S-8 as Exhibit 24.1.

DATED: August 20, 2015 By: /s/ James D. Graham

James D. Graham, attorney-in-fact

EXHIBIT INDEX Exhibit Number Exhibit Description Third Amended Articles of Incorporation of Cliffs (as filed with the Secretary of State of the State 4.1 of Ohio on May 13, 2013 (filed as Exhibit 3.1 to Cliffs' Form 8-K on May 13, 2013 and incorporated herein by reference) Regulations of Cliffs (filed as Exhibit 3.2 to Cliffs' Form 10-K for the period ended December 31, 4.2 2011 and incorporated herein by reference) Form of Common Share Certificate (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended 4.3 September 30, 2014 and incorporated herein by reference) 4.4 Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan Opinion of Jones Day 5.1 23.1 Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm Consent of Jones Day (included in Exhibit 5.1) 23.2 24.1 Power of Attorney