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

POST-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-3 REGISTRATION STATEMENT NO. 333-225148

UNDER THE SECURITIES ACT OF 1933

VANGUARD NATURAL RESOURCES, INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware
*(State or other jurisdiction of
incorporation or organization)*

1311
*(Primary Standard Industrial
Classification Code Number)*

80-0411494
*(I.R.S. Employer
Identification Number)*

**5847 San Felipe, Suite 3000
Houston, Texas 77057
(832) 327-2255**
*(Address, including zip code, and telephone
number, including area code, of registrant's
principal executive offices)*

R. Scott Sloan
President and Chief Executive Officer
**5847 San Felipe, Suite 3000
Houston, Texas 77057
(832) 327-2255**
*(Name, address, including zip code, and telephone
number, including area code,
of agent for service)*

Copies of all communications, including communications sent to agent for service, should be sent to:

Jonathan C. Curth
General Counsel and Secretary
Vanguard Natural Resources, Inc.
5847 San Felipe, Suite 3000
Houston, Texas 77057
(832) 327-2255

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities being offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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 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 (Do not check if a smaller reporting company)

Smaller reporting company

EXPLANATORY NOTE

DEREGISTRATION OF SECURITIES

This Post-Effective Amendment No. 1 relates to the following Registration Statement on Form S-3, originally filed by Vanguard Natural Resources, Inc., a Delaware corporation (the “Company”), with the Securities and Exchange Commission, and replaces the Post-Effective Amendment No. 1 inadvertently filed under submission type “S-3/A” on April 8, 2019:

- Registration Statement No. 333-225148, filed on May 23, 2018, registering (i) the offer and sale by certain selling stockholders from time to time of up to 1,592,585 shares of common stock, par value \$0.001 per share, of the Company (the “Common Stock”) and (ii) 16,442,753 shares of Common Stock previously registered by the Company pursuant to a prior registration statement on Form S-1 (File No. 333-221223) (of which, 98,110 shares of Common Stock are issuable upon exercise of the Company’s three and a half year preferred unit warrants and common unit warrants).

The Company has terminated all offerings of securities pursuant to the Registration Statement. In accordance with the undertakings made by the Company in the Registration Statement to remove from registration, by means of a post-effective amendment, any of the securities that had been registered for issuance that remain unsold at the termination of such offering, the Company hereby removes from registration by means of this Post-Effective Amendment No. 1 all of such securities registered but unsold under the Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended (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-3 and has duly caused this Post-Effective Amendment No. 1 to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, Texas on April 9, 2019. No other person is required to sign this Post-Effective Amendment No. 1 to the Registration Statement on Form S-3 in reliance upon Rule 478 under the Securities Act.

VANGUARD NATURAL RESOURCES, INC.

By: /s/ R. Scott Sloan

Name: R. Scott Sloan

Title: President and Chief Executive Officer