

CALCULATION OF REGISTRATION FEE

Class of securities registered	Amount to be registered	Offering price per unit	Aggregate offering price	Amount of registration fee
Common units representing limited liability company interests	1,075,000	\$27.50	\$29,562,500	\$4,033 (1)

(1) The filing fee, calculated in accordance with Rule 457(c), has been transmitted to the SEC in connection with the securities offered from Registration Statement File No. 333-179050 by means of this prospectus supplement.

PROSPECTUS SUPPLEMENT
(To Prospectus Dated January 18, 2012)

Filed pursuant to Rule 424(b)(7)
Registration No. 333-179050



1,075,000 Common Units

Vanguard Natural Resources, LLC

Representing Limited Liability Company Interests

This prospectus supplement will be used by the selling unitholder listed below to resell its common units representing limited liability company interests (“common units”) of Vanguard Natural Resources, LLC.

You should read this prospectus supplement together with the base prospectus dated January 18, 2012, which is to be delivered with this prospectus supplement.

The table below sets forth additional and updated information concerning beneficial ownership of the common units and supersedes the table appearing under the caption “Selling Unitholder” beginning on page 8 of the accompanying base prospectus. The table sets forth the name of the selling unitholder, the number of the common units beneficially owned by the selling unitholder prior to the offering, the number of common units being offered by the selling unitholder under this prospectus supplement, the amount to be owned by the selling unitholder after completion of the offering (assuming the sale of all common units offered by this prospectus supplement) and the percentage of the common units owned before and after completion of the offering.

We have prepared this table based on information given to us by the selling unitholder listed below as of June 27, 2013. The selling unitholder has indicated to us that it has not, nor has it had within the three-year period immediately preceding June 27, 2013, any position, office or other material relationship with us or any of our predecessors or affiliates, other than (1) the transaction under which MAK-J Energy Partners, Ltd. (“MAK-J”) acquired the common units from us, and (2) its ownership of our common units.

The percentages of common units beneficially owned and being offered are based on the number of common units that were outstanding as of June 26, 2013, unless otherwise stated in the footnotes to the table below. In addition, the selling unitholder identified below may have sold, transferred or otherwise disposed of some or all of its common units in transactions exempt from or not subject to the registration requirements of the Securities Act of 1933, as amended, since that date. Other information about the selling unitholder may also change over time.

Selling Unitholder	Common Units Owned Prior to Offering		Common Units That May Be Offered	Common Units Owned After Offering	
	Number of Common Units	Percentage(1)		Number of Common Units(3)	Percentage(3)
MAK-J Energy Partners, Ltd.(2)	1,075,000(4)	1.4%	1,075,000(4)	—	—

(1) Calculated based upon 76,015,911 common units outstanding on the date hereof, less the common units registered hereby.

(2) Pursuant to a resolution adopted by the board of directors of the general partner of MAK-J Energy Partners, Ltd., all decisions with respect to the voting or disposition of the common units owned by MAK-J Energy Partners, Ltd. are to be made by Peter R. Mounsey.

(3) Assumes the sale of all common units held by the selling unitholder offered by this prospectus supplement.

(4) Pursuant to a loan management account agreement and/or other similar documentation (collectively, the “Loan Documentation”) between MAK-J Energy Partners, Ltd. and Bank of America, N.A, MAK-J Energy Partners, Ltd. has pledged 600,000 common units as security for its obligations in connection with the Loan Documentation.

Investing in our common units involves risks. See “Risk Factors” on page 5 of the accompanying base prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying base prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Prospectus dated June 28, 2013
