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September 12, 2011

Via e-mail: dcaoleters@sec.gov

Office of the Chief Accountant
Division of Corporate Finance
U.S. Securities and Exchange Commission
100 F St. N.E.
Washington, DC 20549-5546

Attention: Ms. Leslie Overton

RE: Vanguard Natural Resources, LLC
SEC File No. 001-33756

Dear Ms. Overton,

In August, we corresponded and had a telephone conversation regarding the significance of an acquisition completed on July 29, 2011, which we refer to as the "Permian Basin acquisition." Since that time we have completed other acquisitions. We have also considered the fact that because our very significant acquisition of the controlling interest in Encore Energy Partners LP ("Encore") occurred on the last day of our 2010 fiscal year, Rule 3-05(b)(3) does not permit us to consider the pro forma effects of the Encore acquisition in performing the income test under Rule 1-02(w)(3). Since the Encore acquisition is reflected in our total assets at December 31, 2010 but not in our pretax income for the year ended December 31, 2010, the significance of our 2011 acquisitions is dramatically higher under the income test than under the investment and asset tests in Rules 1-02(w)(1) and (2). This is because our total assets at December 31, 2010, which totaled approximately \$1.6 billion, included approximately \$1.3 billion of Encore assets purchased on that date. In contrast, our pretax income and our revenues less direct operating expenses for the year ended December 31, 2010, which were approximately \$21.9 million and \$60.0 million, respectively, do not include any results of Encore's 2010 operations. Including Encore's amounts for that period would increase our 2010 pretax income and revenues less direct operating expenses by

approximately \$6.1 million and \$58.5 million, respectively, on a pro forma basis. In addition, on May 20, 2010, we completed a significant acquisition, which we refer to as the "Parker Creek acquisition." Including Parker Creek's amounts for the period from January 1, 2010 to the acquisition date would increase our 2010 pretax income and revenues less direct operating expenses by approximately \$9.7 million and \$5.6 million on a pro forma basis. Further, the only historical information about the operating results of our 2011 acquisitions consists of revenues in excess of direct operating expenses. These amounts are not comparable to the Vanguard pretax income amount Rule 1-02(w)(3) requires us to use to compute significance. For these reasons, we feel that the literal application of Rule 1-02(w)(3) produces anomalous results and does not provide reasonable measures of the significance of our 2011 acquisitions.

Therefore, the purpose of this letter is to ask the staff of the Securities and Exchange Commission (the "Staff") whether it would object if we compute the denominator for the pretax income test in Rule 1-02(w)(3) in the following manner:

- We will compute the denominator using a 2010 pro forma revenue and expense amounts that reflect our significant 2010 acquisitions of the controlling interest in Encore and all of Parker Creek (as well as the effect of our significant 2011 Permian Basin acquisition (as defined below), as specifically permitted by Rule 3-05(b)(3)).
- With respect to the other completed and probable 2011 acquisitions of oil and natural gas properties discussed below (i.e., those other than the Permian Basin acquisition), we will compare the revenue less direct operating expenses of the targets to the comparable pro forma amounts for the Company.

We respectfully request that you consider the proposed methodologies described above on an expedited basis so that the Company may complete its evaluation of the significance of other completed and probable 2011 acquisitions and provide any financial statements needed to comply with Rule 3-05 and Items 2.01 and 9.01 of Form 8-K and related pro forma financial information.

Background

As discussed above, we have completed several acquisitions during 2010 and 2011 and management believes that the utilization of historical numbers in the application of the Regulation S-X Rule 3-05/1-02(w) income test as written produces anomalous results. Management would like to adjust the income test denominator to include the pro forma results of the 2010 acquisition of the 46.6% controlling interest in Encore and the 2010 Parker Creek acquisition described below. Management believes this approach produces a more reasonable measure of significance and is consistent with the concept in Rule 3-05(b)(3). As discussed further below, the Company plans to soon file the audited financial statements of its 2011 Permian Basin acquisition (as defined below) and related pro forma information. The discussion in this letter addresses the filing requirements after this has been completed. At that time, pursuant to Rule 3-05(b)(3), the Company will be permitted to reflect the pro forma effects of the Permian Basin acquisition in

the denominators used in the Rule 1-02(w) significance calculations, and it has done so in computing the amounts and percentages discussed below.

On May 20, 2010, Vanguard completed the acquisition of certain oil and natural gas properties referred to as the "Parker Creek acquisition" for an adjusted purchase price of \$114.3 million. On May 12, 2010, the Company filed audited financial statements of the properties and related pro forma information on a Revised Current Report on Form 8-K/A in satisfaction of Items 2.01 and 9.01 of Form 8-K and Rule 3-05 of Regulation S-X.

On December 31, 2010, Vanguard completed the acquisition of the general partner of Encore and 20,924,055 common units representing limited partnership interests in Encore, representing a 46.6% aggregate equity interest in Encore at June 30, 2011. On December 2, 2010, the Company filed audited financial statements of Encore and related pro forma information on a Current Report on Form 8-K in satisfaction of Items 2.01 and 9.01 of Form 8-K and Rule 3-05 of Regulation S-X.

On July 11, 2011, Vanguard and Encore announced the execution of a definitive agreement that would result in a merger whereby Encore would become a wholly-owned subsidiary of Vanguard Natural Gas, LLC through a unit for unit exchange ("the Encore merger"). On September 2, 2011, Vanguard and Encore filed a Registration Statement on Form S-4/A with the Securities and Exchange Commission, which has not been declared effective. The Registration Statement incorporates by reference the financial statement of Encore and incorporates a joint proxy statement/prospectus which Vanguard and Encore plan to mail to their respective unitholders in connection with obtaining unitholder approval of the proposed merger.

On July 29, 2011, the Company and Encore each acquired an undivided fifty percent interest in producing oil and gas assets in the Permian Basin of West Texas for a net purchase price of \$42.5 million. As such the total purchase price paid by both parties equaled \$81.4 million, after purchase price adjustments. The Company refers to this acquisition as the "Permian Basin acquisition." In accordance with the Staff's letter to Vanguard on August 25, 2011, as discussed above, the Company has begun the process of having the statements of revenues less direct expenses of the properties acquired in the Permian Basin acquisition audited. Upon the completion of the audit, the Company will file the audited financial statements of the properties on a Revised Current Report on Form 8-K/A in satisfaction of Items 2.01 and 9.01 of Form 8-K and Rule 3-05 of Regulation S-X. Vanguard's interest in the Permian Basin acquisition aggregates to 73.3%, which consists of the 50% interest it acquired directly and a 23.3% interest, consisting of Vanguard's 46.6% ownership interest in Encore's 50% interest.

On August 31, 2011, Encore purchased a 50% interest in certain crude oil and natural gas properties (the "Gulf Coast Properties") for \$47.6 million in cash. The Company refers to this acquisition as the "Gulf Coast Acquisition." The Gulf Coast Properties consist of 65 producing wells in the Gulf Coast with estimated

net proved reserves as of June 1, 2011 of approximately 2.1 MMBoe. Thus, to date, Vanguard has acquired a 23.3% interest in the Gulf Coast Properties, consisting of Vanguard's 46.6% ownership interest in Encore's 50% interest.

Rule 3-05 Significance Analysis

We understand that when only revenues and direct operating expenses of a lesser component are available as is the case with the acquisitions of oil and natural gas properties and comparing those amounts to pretax income from continuing operations of the registrant results in a distorted view of the significance of the target, the Staff has not objected to a registrant comparing the excess of revenues over direct operating expenses of a target to the comparable amounts of the registrant.

We have prepared and set forth in Exhibit A attached hereto a significance analysis prepared in accordance with Rules 1-02(w) and 3-05 of Regulation S-X for the Gulf Coast Properties acquired in the Gulf Coast Acquisition. Please note that since the acquisition of the remainder of Encore is considered probable, for purposes of the calculations, we have included all of the interest acquired by Encore (not just 46.6% of Encore's interest). As shown in Exhibit A, when the income test is calculated using Vanguard's pro forma 2010 income before income taxes reflecting only the Permian Basin acquisition the result is 22%, which we believe is a distorted view of the significance of the Gulf Coast Acquisition. When the income test is calculated using Vanguard's pro forma 2010 income before income taxes after taking into consideration the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010, the result is 13%. When the income test is calculated using Vanguard's pro forma 2010 revenues in excess of direct operating expenses reflecting only the Permian Basin acquisition the result is 8%. When the income test is calculated using Vanguard's pro forma 2010 revenues in excess of direct operating expenses after taking into consideration the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010 the result is only 4%. This conclusion is further supported when the significance is evaluated using other measures. The significance percentage under the investment/asset test is similar – 3%. When 2010 revenues for the Gulf Coast Properties are compared to Vanguard's pro forma 2010 revenues reflecting only the Permian Basin acquisition the result is 9%. When 2010 revenues for the Gulf Coast Properties are compared to Vanguard's pro forma 2010 revenues reflecting the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010 the result is only 5%. When reserves of the Gulf Coast Properties as of June 1, 2011 are compared to Vanguard's pro forma 2010 reserves reflecting the Permian Basin acquisition the result is 3%. (Vanguard's historical 2010 reserves reflect the consolidation of Encore and the Parker Creek acquisition.) Thus, we believe the Gulf Cost Acquisition is clearly insignificant.

In addition, we assessed the significance of the population of completed and probable 2011 acquisitions subject to potential reporting pursuant to Rule 3-05(b)(2)(i) – all of Vanguard's and Encore's completed and probable 2011 acquisitions except the acquisition of the 53.4% interest in Encore that Vanguard does not currently own and the 73.3% interest that Vanguard and Encore own in the oil and natural gas properties acquired in the Permian Basin acquisition. These acquisitions were excluded from this population because they are individually significant and we have or will have incorporated by reference the financial statements of these targets in the Registration Statement on Form S-4 and will continue to do so to the extent required in any future Registration Statements. In the aggregation of all individually insignificant acquisitions, the Company included the 27.6% interest in the oil and natural gas properties acquired through the Permian Basin acquisition which is currently attributable to the Encore noncontrolling interest since the Encore merger has not been completed. We have prepared and set forth in Exhibit B attached hereto a significance analysis prepared in accordance with Rules 1-02(w) and 3-05 of Regulation S-X.

As shown in Exhibit B, when the income test is calculated by comparing the excess of revenues over direct operating expenses of all individually insignificant acquisitions over Vanguard's 2010 pro forma income before income taxes reflecting only the Permian Basin acquisition the result is 62%, which we believe is a distorted view of the significance of all individually insignificant acquisitions. When the income test is calculated using Vanguard's 2010 pro forma income before income taxes after consideration of the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010, the result is 38%. When the income test is calculated on a directly comparable basis using Vanguard's pro forma 2010 revenues in excess of direct operating expenses reflecting only the Permian Basin acquisition the result is 22%. When the income test is calculated on a directly comparable basis using Vanguard's pro forma 2010 revenues in excess of direct operating expenses after taking into consideration the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010 the result is 12%, which we believe is more indicative of the true significance of all individually insignificant acquisitions. This conclusion is further supported when the significance is evaluated using other measures. The significance percentage under the investment/asset test is similarly well below 50%. It is 6%. When 2010 revenues for the insignificant acquisitions are compared to Vanguard's pro forma 2010 revenues reflecting only the Permian Basin acquisition the result is 26%. When 2010 revenues for the insignificant acquisitions are compared to Vanguard's pro forma 2010 revenues reflecting the Permian Basin acquisition, the acquisition of the 46.6% interest in Encore completed on December 31, 2010 as well as the Parker Creek acquisition completed during 2010 the result is only 13%. When reserves of the insignificant acquisitions are compared to Vanguard's pro forma 2010 reserves reflecting the Permian Basin acquisition the result is 10%. (Vanguard's historical 2010 reserves reflect the consolidation of Encore and the Parker Creek acquisition.) Thus, we believe the aggregate significance of the individually insignificant acquisitions is clearly well below the 50% threshold in Rule 3-05(b)(2)(i).

Analysis of the Financial Statement Presentation

We understand that the Staff has taken the position that the acquisition of producing oil and gas properties like these acquisitions constitutes a business pursuant to Rule 3-05 of Regulation S-X. Assuming the Staff does not object to the methodology for computing significance as discussed above, the Gulf Coast Acquisition is clearly insignificant based on all measures and the Company is not required to provide audited financial statements. In addition, assuming the Staff does not object to the methodology for computing significance as discussed above, the aggregation of all insignificant acquisitions is clearly well below the 50% threshold in Rule 3-05(b)(2)(i); therefore, for this population of insignificant acquisitions, the Company is not required to provide audited financial statements.

Summary of Relief Requested

For the reasons discussed above, the Company respectfully requests that the Staff confirm that it will not object to the comparison to Vanguard's revenues and direct operating expenses and the use of pro forma amounts in the manner described above to complete our evaluation of the significance of these acquisitions. Also, in order to allow us to continue to make meaningful measurements of the significance of any future 2011 acquisitions, we respectfully request that the Staff confirm that it will not object to the use of pro forma amounts in the manner described above to complete our evaluation of the significance of future 2011 acquisitions.

Thank you for your consideration of our request. We would appreciate your response to the relief and waiver request at the earliest convenient date. Should you have any questions, please do not hesitate to contact me at 832-327-2258 or via email at rrobert@vnrllc.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'RR' or '225', written over a horizontal line.

Richard Robert
Executive Vice President and
Chief Financial Officer

Enclosure (2)

EXHIBIT A**Investment/Asset Test under Rule 1-02(w)(1) and (2) of Regulation S-X**

Gulf Coast acquisition purchase price (including 100% aggregate interest in ENP's 2011 acquisitions)	\$47,628,484
Vanguard pro forma total assets at 12/31/2010 after Permian Basin acquisition	\$1,648,364,000
Gulf Coast acquisition purchase price as a % of Vanguard's pro forma total assets at 12/31/2010	3%

Income Test under Rule 1-02(w)(3) of Regulation S-X

Gulf Coast 2010 revenues in excess of direct operating expenses (including 100% aggregate interest in ENP's 2011 acquisition)	\$5,401,604
Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin acquisition	\$24,780,350
Gulf Coast acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 net income before taxes from continuing operations after Permian Basin acquisition	22%
Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$40,576,940
Gulf Coast acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin, ENP 46.6% and Parker Creek acquisitions	13%

Income Test under Rule 1-02(w)(3) of Regulation S-X - using Vanguard revenues in excess of direct operating expenses as the proxy for income before income taxes from continuing operations

Gulf Coast 2010 revenues in excess of direct operating expenses (including 100% aggregate interest in ENP's 2011 acquisition)	\$5,401,604
Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin acquisition	\$68,650,110
Gulf Coast acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin acquisition	8%
Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$132,761,450
Gulf Coast acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin, ENP 46.6% and Parker Creek acquisitions	4%

Other Information - 12/31/2010 Revenues and Reserve Information

Gulf Coast acquisition:	
Revenues	\$8,681,884
Reserves (MBOE)	2,104
Vanguard pro forma after Permian Basin acquisition:	
Revenues	\$93,961,110
Reserves (MBOE)	74,790
Gulf Coast acquisition as a % of Vanguard pro forma after Permian Basin acquisition at 12/31/2010:	
Revenues	9%
Reserves (MBOE)	3%
Vanguard pro forma revenues after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$186,064,280
Gulf Coast acquisition revenues as a % of Vanguard pro forma revenues after Permian Basin acquisition, ENP 46.6% and Parker Creek acquisitions at 12/31/2010	5%

EXHIBIT B

Vanguard - All
Other Acquisitions

Investment/Asset Test under Rule 1-02(w)(1) and (2) of Regulation S-X

Purchase price (including 100% aggregate interest in ENP's 2011 acquisitions)	\$102,524,146
Vanguard pro forma total assets at 12/31/2010 after Permian Basin acquisition	\$1,648,364,000
Acquisition purchase price as a % of Vanguard's pro forma total assets at 12/31/2010	6%

Income Test under Rule 1-02(w)(3) of Regulation S-X

Acquisition 2010 revenues in excess of direct operating expenses (including 100% aggregate interest in ENP's 2011 acquisitions)	\$15,389,690
Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin acquisition	\$24,780,350
Acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 net income before taxes from continuing operations after Permian Basin acquisition	62%
Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$40,576,940
Acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 net income before income taxes from continuing operations after Permian Basin, ENP 46.6% and Parker Creek acquisitions	38%

Income Test under Rule 1-02(w)(3) of Regulation S-X - using Vanguard revenues in excess of direct operating expenses as the proxy for income before income taxes from continuing operations

Acquisition 2010 revenues in excess of direct operating expenses (including 100% aggregate interest in ENP's 2011 acquisitions)	\$15,389,690
Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin acquisition	\$68,650,110
Acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin acquisition	22%
Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$132,761,450
Acquisition 2010 revenues in excess of direct operating expenses as a % of Vanguard pro forma 2010 revenues in excess of direct operating expenses after Permian Basin, ENP 46.6% and Parker Creek acquisitions	12%

Other Information - 12/31/2010 Revenues and Reserve Information

All 2011 acquisitions (including 100% aggregate interest in ENP's 2011 acquisitions):	
Revenues	\$24,269,116
Reserves (MBOE)	7,542
Vanguard pro forma after Permian Basin acquisition:	
Revenues	\$93,961,110
Reserves (MBOE)	74,790
All 2011 acquisitions as a % of Vanguard pro forma after Permian Basin acquisition at 12/31/2010:	
Revenues	26%
Reserves (MBOE)	10%
Vanguard pro forma revenues after Permian Basin, ENP 46.6% and Parker Creek acquisitions	\$186,064,280
All 2011 acquisitions revenues as a % of Vanguard pro forma revenues after Permian Basin acquisition, ENP 46.6% and Parker Creek acquisitions at 12/31/2010	13%