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Prospectus Supplement to Prospectus dated September 4, 2001

PLAINS ALL AMERICAN PIPELINE, L.P.

575,000 Common Units

This prospectus supplement relates to the sale by Plains Holdings II Inc., successor by conversion to Plains Holdings LLC ("Plains Holdings II"), of 575,000 of our common units, in a negotiated transaction. We will not receive any of the proceeds from the sale of the common units.

Investing in our common units involves risks. See "Risk Factors" on page 2 of the accompanying 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 prospectus to which it relates is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is February 25, 2005.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and in the accompanying prospectus. No one has been authorized to provide you with different information. The common units are not being offered in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of the documents.

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ADDITIONAL INFORMATION REGARDING SELLING UNITHOLDER

Vulcan Energy Corporation is the sole stockholder of Plains Resources Inc. Plains Resources Inc. is the sole stockholder of Plains Holdings Inc., which owns 44% of the equity of Plains AAP, L.P., our general partner. Plains Holdings Inc. is the sole stockholder of Plains Holdings II.

Pursuant to the Amended and Restated Limited Liability Company Agreement of our general partner (the "LLC Agreement"), certain of the owners of our general partner have the right to designate a member of our board of directors. Plains Holdings Inc. has designated David N. Capobianco as a member of our board of directors. Mr. Capobianco is the Chairman of the Board and Vice President of Vulcan Energy Corporation. In addition, pursuant to the LLC Agreement, John T. Raymond has been designated one of our directors by Sable Investments, L.P. Sable Investments, L.P. is controlled by James M. Flores, a director of Vulcan Energy Corporation. Mr. Raymond owns approximately 2% of the outstanding shares of common stock of Vulcan Energy Corporation. Mr. Raymond is a director and the Chief Executive Officer of Vulcan Energy Corporation. Sable Investments, L.P. has entered into a voting agreement with Plains Holdings Inc. pursuant to which Sable has agreed to exercise Sable's right to designate a director under the LLC Agreement by designating its director in accordance with instructions from Plains Holdings. The agreement is limited to such designations and the obligation to vote in favor of such designee. Either party may terminate the agreement upon 30 days' notice.

In connection with the acquisition of Link Energy LLC, on April 15, 2004 we issued 1,289,280 Class C common units for \$30.81 per unit in a private placement to an affiliate of Vulcan Energy Corporation. At the time of such transaction, Vulcan Energy Corporation and Plains Holdings II were not affiliated. Total proceeds from the transaction, after deducting transaction costs and including the general partner's proportionate contribution, were used to reduce the balance outstanding under our revolving credit facilities. On February 22, 2005, these Class C common units were converted into common units.

Substantially contemporaneously with the sale of the common units hereunder, Plains Holdings II is purchasing from us 575,000 newly issued common units at a price of \$38.13 per common unit, or \$21,924,750 in the aggregate, in a negotiated transaction.

Prior to the sale of the common units hereunder, Plains Holdings II owned 12,390,120 common units. Following the sale hereunder and the substantially contemporaneous purchase described above, Plains Holdings II will own 12,390,120 common units (approximately 18.4% of the outstanding common units as of February 25, 2005), and Plains Holdings II and its affiliates will collectively own 13,688,400 common units (approximately 20.3% of the outstanding common units as of February 25, 2005).

INCORPORATION BY REFERENCE

In addition to the matters incorporated by reference as described under "Where You Can Find More Information" in the accompanying prospectus, we incorporate by reference the information in the (unaudited) Consolidated Statements of Operations and (unaudited) Condensed Consolidated Balance Sheet Data appended to the press release attached as Exhibit 99.1 to the Current Report on Form 8-K furnished to the SEC on February 24, 2005. None of the other information in such appendices, Exhibit 99.1 or Current Report is incorporated herein by reference. The information incorporated by reference is unaudited and should be considered preliminary until such time as we receive our financial audit and internal control audit reports from its external auditors and file our Annual Report on Form 10-K for the year ended December 31, 2004

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