

Rosetta Resources Inc.
Form 424B3
February 22, 2007

Filed pursuant to Rule 424(b)(3)
Registration Number 333-128888

PROSPECTUS SUPPLEMENT NO. 4
(To the Prospectus dated June 14, 2006)

50,000,000 Shares of
Common Stock

This Prospectus Supplement No. 4 supplements the prospectus dated June 14, 2006, the Prospectus Supplement No. 1 dated August 15, 2006, the Prospectus Supplement No. 2 dated November 14, 2006, and Prospectus Supplement No. 3 dated November 30, 2006 (together, the "Prospectus"), relating to the sale by the holders of Common Stock of Rosetta Resources Inc. This Prospectus Supplement should be read in conjunction with the Prospectus which is to be delivered with this Prospectus Supplement. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

INVESTING IN OUR COMMON STOCK INVOLVES RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 17 OF OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2005 AND ON PAGE 10 OF THE PROSPECTUS.

This prospectus supplement is filed for the purposes of including the information relating to production for 2006, proved reserves as of December 31, 2006, capital budget for 2007, updates to our hedging transactions and of clarifying certain Selling Stockholders information.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus Supplement is February 22, 2007.

On February 20, 2007, Rosetta Resources Inc. (the "Company") released information regarding its total proved oil and natural gas reserves as of December 31, 2006, operations and production volume summaries for 2006 and 2007 guidance related to capital expenditures, production and drilling activities.

The Company's estimated total proved oil and natural gas reserves as of December 31, 2006 were 407.8 billion cubic feet of gas equivalents (Bcfe), consisting of 390.2 Bcfe of natural gas and 2.9 million barrels (bbls) of crude oil and

condensate.

The 2006 year end reserve number excludes 23.4 Bcfe of proved reserves associated with the non-consent properties that have not yet been conveyed to Rosetta by Calpine. These properties are those for which the Company withheld approximately \$75 million from the purchase price it paid to Calpine for all or substantially all of its oil and gas properties.

The year end 2006 reserve number increased 14% over the year ended December 31, 2005 number of 359 Bcfe, primarily due to organic drilling activities. The estimated year end standardized measure of discounted future net cash flows was \$721.7 million using a flat average natural gas and oil price of \$5.84 per Mcf and \$58.82 per bbl, respectively. This number does not include the year end pre-tax PV-10 value of the company's hedging program of \$75 million.

Our capital expenditures were approximately \$240 million in 2006, including approximately \$35 million relating to properties acquired during 2006, most of which were made near the end of the year and did not contribute significantly to 2006 production. For 2007, our estimated capital budget for organic growth is \$250 million.

Rosetta's production for 2006 increased to 33.4 Bcfe for an average of 92 MMcfe per day. This daily production equates to a 26% increase versus the 73 MMcfe per day reported for the second half of 2005, which was the first six month period that Rosetta was a stand alone entity.

The Company increased hedge volumes to some 65 Bbtu per day for the April - December 2007 period. This includes some 55 Bbtu per day of fixed price swaps at an average price of \$7.79/MMbtu and some 10 Bbtu per day of price collars with floor and caps of \$7.19 and \$10.03 per MMbtu, respectively. For 2008, some 50 Bbtu per day of fixed price swaps are currently in place at an average price of \$7.62/MMbtu.

Selling Stockholders

As of February 22, 2007, the Selling Stockholder table included under the Section "Selling Stockholders", which begins on page 27 in the Prospectus, is revised to include certain selling stockholders who were inadvertently omitted from the Selling Stockholders table in the Prospectus and the subsequent omitted footnote.

| Selling Stockholder | Number of Shares of Common Stock That May Be Sold | Percentage of Common Stock Outstanding |
|-------------------------------|--|---|
| Haussuann Holdings N.V. (114) | 24,200 | * |

(114) Marc Hoegger is the director of this selling stockholder and is deemed to hold investment power and voting control over the shares held by this selling stockholder.
