

Vale S.A.
Form 6-K
July 31, 2009

**United States
Securities and Exchange Commission
Washington, D.C. 20549
FORM 6-K
Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
of the
Securities Exchange Act of 1934
For the month of
July 2009
Vale S.A.**

Avenida Graça Aranha, No. 26
20030-900 Rio de Janeiro, RJ, Brazil
(Address of principal executive office)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

(Check One) Form 20-F Form 40-F

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes No

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7))

(Check One) Yes No

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes No

(If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b). 82-_____.)

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Vale confirms hydrocarbon discovery

Rio de Janeiro, July 31, 2009 Vale S.A. (Vale) confirms the existence of hydrocarbon in the exploration well Vampira, located in the BM-S-48 block, in the Santos basin, Brazil.

Vale owns a share of 12.5% of the consortium that holds the exploration concession. The consortium is 40% owned by Repsol, the operator of consortium, 35% by Petrobras and 12.5% by Woodside.

Two samples collected at depths between 4,821 and 4,841 meters indicate, in a preliminary analysis, the presence of light oil and gas. The results are not definitive and it is still too early to estimate the total discovered volume of hydrocarbons, for which the necessary tests have not been concluded.

The drilling campaign, which started last September in the well Panoramix and has continued with the well Vampira, will be interrupted for approximately two months. After this, it will involve at least one additional well in 2009 and 2010.

In May 11, 2009, we announced the discovery of Panoramix, our first case of success in our natural gas exploration efforts in Brazilian basins.

The exploration of natural gas is aligned with our strategy to diversify and optimize our energy matrix. Vale's current exploration portfolio consists of minority stakes in consortia holding 16 concessions in the Brazilian basins of Espírito Santo, Pará-Maranhão, Parnaíba and Santos.

In the first half of 2009 we invested US\$ 72 million in natural gas exploration, out of the US\$ 261 million capex budget for the year.

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This press release may include declarations about Vale's expectations regarding future events or results. All declarations based upon future expectations, rather than historical facts, are subject to various risks and uncertainties. Vale cannot guarantee that such declarations will prove to be correct. These risks and uncertainties include factors related to the following: (a) the countries where Vale operates, mainly Brazil and Canada; (b) the global economy; (c) capital markets; (d) the mining and metals businesses and their dependence upon global industrial production, which is cyclical by nature; and (e) the high degree of global competition in the markets in which Vale operates. To obtain further information on factors that may give rise to results different from those forecast by Vale, please consult the reports filed with the Brazilian Comissão de Valores Mobiliários (CVM), the French Autorité des Marchés Financiers (AMF), and with the U.S. Securities and Exchange Commission (SEC), including Vale's most recent Annual Report on Form 20F and its reports on Form 6K.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Vale S.A.
(Registrant)

Date: July 31, 2009

By: /s/ Roberto Castello Branco
Roberto Castello Branco
Director of Investor Relations