FORM 6 - K

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Report of Foreign Private Issuer Pursuant to Rule 13a - 16 or 15d - 16 of the Securities Exchange Act of 1934

As of 5/28/2008

Ternium S.A. (Translation of Registrant's name into English)

Ternium S.A.

46a, Avenue John F. Kennedy – 2nd floor
L-1855 Luxembourg
(352) 4661-11-3815
(Address of principal executive offices)

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

Form 20-F b Form 40-F o

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12G3-2(b) under the Securities Exchange Act of 1934.

Yes o No b

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

Not applicable

Edgar Filing: Ternium S.A. - Form 6-K

The attached material is being furnished to the Securities and Exchange Commission pursuant to Rule 13a-16 and Form 6-K under the Securities Exchange Act of 1934, as amended.

This report contains Ternium S.A.'s press release titled Venezuelan Tax Authorities Initiate Tax Assessment against Sidor.

SIGNATURE

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.

TERNIUM S.A.

By: /s/ Roberto Philipps Name: Roberto Philipps Title: Chief Financial Officer

Dated: May 28, 2008

Sebastián Martí Ternium - Investor Relations +1 (866) 890 0443 +52 (81) 8865 2111 +54 (11) 4018 2389 www.ternium.com

Venezuelan Tax Authorities Initiate Tax Assessment against Sidor

Luxembourg, May 28, 2008 – Ternium S.A. (NYSE: TX) announced today that, following the announcement of the Venezuelan government's intention to nationalize Sidor and the passing of legislation to that effect, the Venezuelan tax authorities initiated a tax assessment against Sidor involving income taxes for fiscal years 2003, 2004, 2005, 2006 and 2007 resulting in allegedly omitted payments in an aggregate principal amount of Venezuelan bolívares 1,438.6 million (or US\$669.1 million).

The tax assessment, which covers certain previously audited periods, alleges that Sidor improperly deducted certain payments for income tax purposes, primarily consisting of amounts paid to Ylopa – Serviços de Consultadoria, Ltd., a subsidiary of Ternium organized under the laws of Portugal, and Corporación Venezolana de Guayana, or CVG (a Venezuelan governmental entity and a shareholder of Sidor), under certain participation account agreements (contratos de cuentas en participación) entered into with Ylopa and CVG in connection with the restructuring of Sidor's financial debt in 2003. In addition, the tax assessment challenges, among other things, the adjustment of tax loss carry forwards corresponding to prior fiscal years.

The tax assessment requires Sidor to amend the relevant income tax returns and pay the balance resulting therefrom, plus a penalty equal to 10% of the allegedly omitted amounts. Sidor may challenge the tax assessment and maintain the suspension of its effects.

Sidor believes that it is and has always been in compliance with all applicable Venezuelan tax laws and regulations, and that there are no grounds for any such claims. Ternium will defend itself vigorously against any attempt by the Venezuelan government to lower the compensation for its interest in Sidor as a result of this tax assessment, and reserves all of its rights under contracts, investment treaties and Venezuelan and international law in connection therewith.

Forward Looking Statements

Some of the statements contained in this press release are "forward-looking statements". Forward-looking statements are based on management's current views and assumptions and involve known and unknown risks that could cause actual results, performance or events to differ materially from those expressed or implied by those statements. These risks include but are not limited to risks arising from uncertainties as to gross domestic product, related market demand, global production capacity, tariffs, cyclicality in the industries that purchase steel products and other factors beyond Ternium's control.

About Ternium

Edgar Filing: Ternium S.A. - Form 6-K

Ternium is one of the leading steel companies in the Americas, offering a wide range of flat and long steel products. With its main operations in Mexico, Venezuela and Argentina and 21,000 employees, Ternium had sales of approximately US\$8 billion and shipments of approximately 10 million tons of finished steel products in 2007. More information about Ternium is available at www.ternium.com.