FRONTEER GOLD INC
Form 6-K
December 20, 2010

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 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of **December, 2010**

Commission File Number: **001-32557**

Fronteer Gold Inc.

(Translation of registrant's name into English)

Suite 1650 - 1055 West Hastings Street, Vancouver B.C. Canada V6E 2E9
(Address of principal executive offices)

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

[ ] Form 20-F [x] 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): [ ]

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): [ ]

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

Yes [ ] No [x]

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

SUBMITTED HEREWITH

Exhibits

99.1	News release dated December 17, 2010: Fronteer Gold Enters Into Agreement to Sell Its Uranium Assets to Paladin Energy

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.

FRONTEER GOLD INC.
(Registrant)

Date: December 17, 2010

By: */s/ Sean Tetzlaff*

Sean Tetzlaff
Title: Chief Financial Officer, VP Finance and Corporate Secretary