Pioneer Diversified High Income Trust
Form SC 13G
February 15, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(AMENDMENT NO. ___)*

Pioneer Diversified High Income Trust
(NAME OF ISSUER)

Common Stock
(TITLE OF CLASS OF SECURITIES)

723653101
(CUSIP NUMBER)

December 31, 2011
(DATE OF EVENT WHICH REQUIRES FILING OF THIS STATEMENT)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[X] Rule 13d-1(b)

[_] Rule 13d-1(c)

[_] Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	Name of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Advisors Asset Management, Inc. 20-0532180	
2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) [_] (b) [_]	
3	SEC Use Only	
4	Citizenship or Place of Organization Delaware, U.S.A.	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5 Sole Voting Power	552,001
	6 Shared Voting Power	0
	7 Sole Dispositive Power	552,001
	8 Shared Dispositive Power	0
9	Aggregate Amount Beneficially Owned by Each Reporting Person 552,001	
10	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See instructions) [_]	
11	Percent of Class Represented by Amount in Row 9 6.697%	
12	Type of Reporting Person (See instructions) BD IA	

ITEM 1.

(a) Name of Issuer:

Pioneer Diversified High Income Trust

(b) Address of Issuer's Principal Executive Offices:

333 West Wacker Drive, Chicago, IL 02109

ITEM 2.

(a) Name of Person Filing:

Advisors Asset Management, Inc.

(b) Address of Principal Business Office:

18925 Base Camp Road, Monument, Colorado 80132

(c) Citizenship: Delaware, U.S.A.

(d) Title of Class of Securities: Common Stock

(e) CUSIP Number: 723653101

ITEM 3. If this statement is filed pursuant to ss. 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a) [X] Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

(b) [_] Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

(c) [_] Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).

(d) [_] Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).

(e) [X] An investment adviser in accordance with ss. 240.13d-1(b)(ii)(E).

(f) [_] An employee benefit plan or endowment fund in accordance with ss. 240.13d-1(b)(1)(ii)(F).

(g) [_] A parent holding company or control person in accordance with ss. 240.13d-1(b)(1)(ii)(G).

(h) [_] A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).

(i) [_] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).

(j) [_] Group, in accordance with ss. 240.13d-1(b)(1)(ii)(J).

ITEM 4. Ownership:

(a) Amount Beneficially Owned: 552,001

(b) Percent of Class: 6.697%

(c) Number of Shares as to which such person has:

(i) Sole power to vote or to direct the vote: 552,001

(ii) Shared power to vote or to direct the vote: 0

(iii) Sole power to dispose or to direct the disposition of: 552,001

(iv) Shared power to dispose or to direct the disposition of: 0

ITEM 5. Ownership of Five Percent or Less of a Class:

N/A

ITEM 6. Ownership of More than Five Percent on Behalf of Another:

Advisors Asset Management, Inc. is sponsor of several unit investment trusts which hold shares of common stock of the issuer. No unit investment trust sponsored by Advisors Asset Management, Inc. holds 5% or more of the issuer's common stock.

ITEM 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company:

See Item 6

ITEM 8. Identification and Classification of Members of the Group:

N/A

ITEM 9. Notice of Dissolution of Group:

N/A

ITEM 10. Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Advisors Asset Management, Inc.

By: /s/ Scott Colyer February 15, 2012

Scott Colyer
Chief Executive Officer

ATTENTION: INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACT CONSTITUTE FEDERAL CRIMINAL VIOLATIONS (SEE 18 U.S.C. 1001)