

FORM 5

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Form 3 Holdings Reported.

Form 4 Transactions Reported.

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

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0362
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1. Name and Address of Reporting Person * MOSS DONALD S (Last) (First) (Middle) 9165 ETCHING OVERLOOK (Street) DULUTH GA 30097 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol WELLS REAL ESTATE INVESTMENT TRUST INC [N/A]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) 12/31/2006	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date(Month/Day/Year)	2A. Deemed Execution Date, if any(Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5.Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
Common Stock	06/22/2006		P	1,707.25	A	\$ 8.31	101,921.94	D	
Common Stock	09/22/2006		P	1,737.39	A	\$ 8.31	101,921.94	D	
Common Stock	12/22/2006		P	1,768.06	A	\$ 8.31	101,921.94	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
					(A)	(D)	Date Exercisable	Expiration Date						Title
Warrants	\$ 12	06/22/2006		A	68.29		06/22/2006	(1)	Common Stock	68.29	\$ 12	3,619.16	D	
Warrants	\$ 12	09/22/2006		A	69.5		09/22/2006	(1)	Common Stock	69.5	\$ 12	3,619.16	D	
Warrants	\$ 12	12/22/2006		A	70.72		12/22/2006	(1)	Common Stock	70.72	\$ 12	3,619.16	D	

Explanation of Responses:

1. Expiration date of warrants shall be the earlier of (i) 5:00 p.m. Eastern Standard Time on the fifth anniversary of the date of a listing of Wells Real Estate Investment Trust, Inc. ("Wells REIT") shares on a national exchange, (ii) the date of removal "for cause" of the independent director to whom the warrant was issued as a director of Wells REIT, or (iii) three months following the date the independent director to whom the warrant was issued ceases to be a director of Wells REIT for any reason, except for death or disability, to which the warrant expires one year from the date of death.

Douglas P. Williams,
Attorney-in-Fact

02/13/2007

** Signature of Reporting
 Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.