FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* Freudenthal David D.				2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ACI]								(Che	elationship eck all appli	,		son(s) to Is			
(Last) (First) (Middle) ONE CITYPLACE DRIVE				3. Date of Earliest Transaction (Month/Day/Year) 02/23/2012										Officer below)	(give title		Other (below)	specify	
SUITE 300 (Street)					4. If	4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person					
ST. LOU	IS M	0	63141													filed by Mor		•	
(City)	(S	tate) ((Zip)																
		Tab	le I - Non	-Deriv	ative	Se	curitie	s Ac	quired,	Dis	osed o	of, or Be	enefi	ciall	y Owned	t c			
1. Title of Security (Instr. 3) 2. Transac Date (Month/Da						ar) E	Execution if any	A. Deemed execution Date, any Month/Day/Year)		3. 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4) (5) (8)			4 and Securit		ies Fo cially (D Following (I)		vnership n: Direct r Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership	
									Code	v	Amount	(A) (D)	or P	rice	Transac (Instr. 3	ction(s)			(Instr. 4)
	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. Deeme Execution if any (Month/Day	Date, 1	Code (Inst				6. Date Exercisabl Expiration Date (Month/Day/Year)		Amount of			8. Price of Derivative Security (Instr. 5)	9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4)	Owr Fori Dire or Ir (I) (I	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
					Code	v	(A)	(D)	Date Exercisabl		xpiration ate	Title	Amo or Nun of Sha	nber					
Restricted Stock Units	\$13.93	02/23/2012			A		2,500		(1)		(2)	Common Stock	2,5	500	\$0.00	2,500		D	

Explanation of Responses:

- 1. The reporting person received 2500 restricted stock units on February 23, 2012. The restricted stock units vest upon the retirement of the reporting person.
- 2. The resricted stock units do not expire. $\,$

Remarks:

/s/ Jon S. Ploetz, Attorney-in-

Fact

** Signature of Reporting Person

Date

02/27/2012

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.