

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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* <u>DIETRICH DOUGLAS T</u> (Last) (First) (Middle) 405 LEXINGTON AVENUE (Street) NEW YORK NY 10174 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>MINERALS TECHNOLOGIES INC [MTX]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) Vice President
	3. Date of Earliest Transaction (Month/Day/Year) 01/28/2009	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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 Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	01/28/2010		M		1,634	A	(1)	2,638	D	
Common Stock	01/28/2010		F		758	D	\$48.27	1,880	D	
Common Stock								482 ⁽²⁾	I	By 401(k) Plan

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)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Employee Stock Option (Right to Buy)	\$39.71	01/28/2009		A		8,500		(3)	01/28/2019	Common Stock	8,500	\$0	15,600	D	
Deferred Restricted Stock Units (DRSUs)	(1)	01/28/2009		A		4,900		(4)	(4)	Common Stock	4,900	\$0	7,116	D	
DRSUs	(1)	01/28/2010		M		1,634		(5)	(5)	Common Stock	1,634	(1)	5,482	D	

Explanation of Responses:

- Each DRSU is the economic equivalent of one share of Minerals Technologies Inc. Common Stock.
- Mr. Dietrich has 482 shares of Minerals Technologies Inc. Common Stock under the Company's 401(k) Plan. The information contained in this report is based on a Plan Statement dated as of January 28, 2010.
- The options vest in three equal annual installments beginning on January 28, 2010.
- DRSUs vest in three equal annual installments beginning on January 28, 2010. Vested shares will be delivered to the reporting person upon vesting.
- Mr. Dietrich was granted 4,900 DRSUs on January 28, 2009, which vest in three equal annual installments beginning on January 28, 2010.

Remarks:

Thomas Meek for Douglas T. Dietrich 02/01/2010

** 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.

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