

O'Rourke James Calvin
 Form 4
 July 29, 2009

FORM 4

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

OMB APPROVAL

OMB Number: 3235-0287
 Expires: January 31, 2005
 Estimated average burden hours per response... 0.5

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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

(Print or Type Responses)

1. Name and Address of Reporting Person *
 O'Rourke James Calvin

(Last) (First) (Middle)

C/O THE MOSAIC COMPANY, 3033 CAMPUS DRIVE, SUITE E490

(Street)

PLYMOUTH, MN 55441

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
 MOSAIC CO [MOS]

3. Date of Earliest Transaction (Month/Day/Year)
 07/27/2009

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

___ Director ___ 10% Owner
 Officer (give title below) ___ Other (specify below)
 EVP - Operations

6. Individual or Joint/Group Filing(Check Applicable Line)
 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 Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				(A) or (D)	Price		
				Code	V	Amount	

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

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 control number.

SEC 1474 (9-02)

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

1. Title of Derivative	2. Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if	4. Transaction	5. Number of Derivative	6. Date Exercisable and Expiration Date	7. Title and Amount of Underlying Securities
------------------------	---------------	--------------------------------------	-------------------------------	----------------	-------------------------	---	--

Edgar Filing: O'Rourke James Calvin - Form 4

Security (Instr. 3)	or Exercise Price of Derivative Security	any (Month/Day/Year)	Code (Instr. 8)	Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	(Month/Day/Year)	(Instr. 3 and 4)				
			Code V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	
Restricted Stock Units	\$ 0 ⁽¹⁾					01/08/2012	⁽²⁾	Common Stock	13,830	
Stock Option (Right to Buy)	\$ 52.72	07/27/2009	A	12,019		⁽³⁾	07/27/2019	Common Stock	12,019	
Restricted Stock Units	\$ 0 ⁽¹⁾	07/27/2009	A	11,381		07/27/2012	⁽²⁾	Common Stock	11,381	

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

O'Rourke James Calvin
C/O THE MOSAIC COMPANY
3033 CAMPUS DRIVE, SUITE E490
PLYMOUTH, MN 55441

EVP -
Operations

Signatures

/s/ Richard L. Mack, Attorney-in-Fact for James C.
O'Rourke

07/29/2009

__Signature of Reporting Person

Date

Explanation of Responses:

- * 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).
- (1) One-for-One
- (2) Not Applicable
- (3) Grant Date 07/27/2009; option becomes exercisable in three equal installments commencing on the first anniversary of the grant date and on each anniversary thereafter.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.