



DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (575) 748-8704 Fax (575) 748-8719

HOBBS OCD

May 16, 2011

JUL 05 2011

30-025-39620

RECEIVED

COG Operating, LLC
500 W. Texas, Suite 1300
Midland, Texas 79701

Re: MC Federal # 47
Sec. 21, T-17-S, R-32-E
Lea County, New Mexico
340/W + 1650/E

Unit B

Attn: John Coffman

The following is a Deviation Survey on the referenced well in Lea County, New Mexico:

74' - 0°	792' - 2°	3540' - 2.25°	5503' - 1°
225' - 0.25°	1285' - 1°	3727' - 2°	6000' - 0.75°
373' - 1.5°	1785' - 1.75°	3914' - 2°	6498' - 0.75°
461' - 2°	2067' - 1°	4131' - 1°	
548' - 3°	2541' - 0.25°	4600' - 1°	
635' - 3°	3040' - 1°	5006' - 1°	

Sincerely,

Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 16th day of May, 2011 by Gary W. Chappell.



OFFICIAL SEAL
CHERYL A. BARTLETT
NOTARY PUBLIC - STATE OF NEW MEXICO

My commission expires: 4-29-12

NOTARY PUBLIC