



DRILLING INC. Oil Well Drilling Contractor

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

November 14, 2011

30-015-39446

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

Re: Empire Fed SWD 10 #5
Sec. 10, T-17-S, R-29-E
Eddy County, New Mexico

Attn: John Coffman

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

302' - 0.75°	2582' - 0.25°	5715' - 0.25°
614' - 1.25°	3057' - 0.5°	6185' - 0.75°
1015' - 1.25°	3500' - 0.75°	6656' - 0.25°
1173' - 0.75°	3962' - 0.5°	7124' - 1°
1550' - 2°	4334' - 0.5°	7405' - 1°
1836' - 1°	4806' - 0.75°	7905' - 0.5°
2138' - 0.25°	5244' - 0.25°	8282' - 0.25°

Sincerely,

Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 14th day of November, 2011 by Gary W. Chappell.



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

My commission expires: 4-29-12

NOTARY PUBLIC