



DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (505) 748-8704 Fax (505) 748-8719

30-015-38973

March 5, 2012

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

Re: Empire St. SWD " 8 " # 1
Sec. 8, 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:

74' - 1°	1348' - 0.5°	3210' - 1°	5609' - 1.25°	7989' - 1.25°
230' - 0.5°	1680' - 1.25°	3679' - 0.5°	6103' - 1.25°	8296' - 1.5°
480' - 1°	2146' - 0.75°	4175' - 0.25°	6574' - 1°	
772' - 0.75°	2335' - 1°	4645' - 1°	7047' - 1°	
1085' - 1°	2739' - 0.75°	5140' - 0.5°	7497' - 1°	

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 23 2015
RECEIVED

Sincerely,

Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 5th day of March, 2012 by Gary W. Chappell.

NOTARY PUBLIC

