

KEN REYNOLDS-PRESIDENT
GARY W. CHAPPELL-VICE PRESIDENT

DRILLING CO., INC. - OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88202-1498
505/623-5070 505/746-2719
ROSWELL, NM ARTESIA, NM

November 3, 1997

Elk Oil Company
P.O. Box 310
Roswell, NM 88202-0310

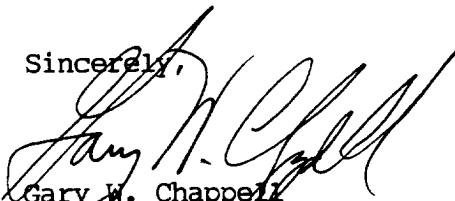
RE: MA Federal #1

Gentlemen:

The following is a Deviation Survey on the above referenced well located in Chaves County, New Mexico.

387' - 3/4°	2,899' - 1 1/4°	4,983' - 1/2°	7,509' - 3/4°	9,847' - 2 1/4°
874' - 3/4°	3,220' - 1 3/4°	5,480' - 3/4°	8,167' - 1/2°	9,940' - 2°
1,380' - 1 1/4°	3,717' - 2°	5,995' - 3/4°	8,662' - 1/4°	10,065' - 2°
1,887' - 1 3/4°	3,970' - 1 1/2°	6,511' - 1/4°	9,162' - 1/2°	10,363' - 2°
2,394' - 1 1/4°	4,470' - 1°	7,007' - 1/2°	9,741' - 2°	10,565' - 1 1/2°

Sincerely,



Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)

COUNTY OF CHAVES)

The foregoing was acknowledged before me this 3rd day of November 1997 by Gary W. Chappell.

MY COMMISSION EXPIRES

JUNE 20, 2000



NOTARY PUBLIC