

June 6, 1997

Manzano 0il Corporation P.O. Box 2107 Roswell, New Mexico 88202-2107

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RE: "SV" Big Bertha #1 Unit F 11.165.36e 2081/ $N \neq 1870/\omega$ Gentlemen: 30.025.33883

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

406'- 1/4 ⁰	3395' - 2 ⁰	5908' - 1 3/4 ⁰	8985' - 1 1/4 ⁰
908' - 3/4 ⁰	3676' - 2 ⁰	6407' - 1 ⁰	9485' - 1 1/4 ⁰
$1412' - 1 1/2^{\circ}$	4173' - 2 1/4 ⁰	6980' - 1 1/2 ⁰	9992' - 1 ⁰
1918' - 1 3/4 ⁰	4418' - 1 1/4 ⁰	7476' - 1 1/2 ⁰	10,512' - 1 ⁰
2418' - 1 1/4 ⁰	4918' - 1 1/4 ⁰	7979' - 1 1/4 ⁰	10,625' - 1 ⁰
2896' - 1 1/4 ⁰	5418' - 1 1/4 ⁰	8483' - 1 ⁰	10,900' - 1 1/4 ⁰

Sincerel Cary W./Chappell

Contracts Manager

STATE OF NEW MEXICO)) COUNTY OF CHAVES)

The foregoing was acknowledged before me this 6th day of June 1997 by Gary W. Chappell.

MY COMMISSION EXPIRES

NOTARY PUBLIC

JUNE 20, 2000