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DEVIATION SURVEY REPORT

JUL 1 1982

O. C. D. ARTES A. OFFICE

OPERATOR: JACK GRYNBERG AND ASSOCIATES Re: WELL NAME: HOBBS CANYON FEDERAL #4 WELL LOCATION: 660' FNL & 660' FEL Sec. 12, T 6 S - R 24 E

Chaves County, NM

TOTCO DEVIATION SURVEY:

1

DATE	FOOTAGE/DEPTH	DEVIATION/DEGREE
4/11/82	530'	1/2
4/12/82	854'	1/2
4/14/82	1368'	0
4/15/82	1890' 2420'	1/4 1/2
4/16/82	2940'	1/2
4/17/82	3433'	0
4/18/82	4041'	1/2

I hereby certify that the above deviation survey, performed on the referenced well, is true and correct to the best of my knowledge.

JACK GRYNBERG AND ASSOCIATES

MORRIS ETTINGER, Exploration Manager

STATE OF COLORADO COUNTY OF DENVER

ss.

On this 24th day of May , 1982, before me, a No in and for said County and State, personally appeared Morris Ettinger May____, 1982, before me, a Notary Public to me known to be the identical person described in and who executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

WITNESS my hand and official seal the day and year above written.



My commission expires:

11-5-1