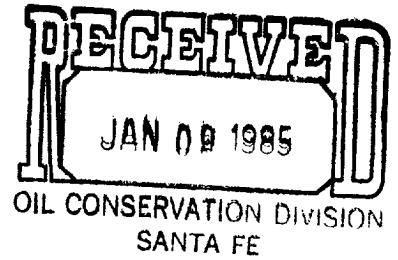


ARAPAHOE DRILLING CO., INC.
P. O. BOX 26687
ALBUQUERQUE, NEW MEXICO 87125



STEVE SCHALK
PRESIDENT

January 2, 1985

Operator: Chace Oil Company

#1 Santa Fe Mining
Section 31, Township 14 North, Range 8 East
Santa Fe County, New Mexico

DEVIATION RECORD

DATE	DEPTH	DEVIATION
11/28/84	60'	3/4°
	163'	1/2°
11/29/84	328'	1/2°
	447'	1°
11/30/84	566'	1 1/2°
	658'	1 1/2°
	689'	1 1/2°
12/01/84	720'	2°
	744'	1 1/2°
	783'	1 3/4°
12/02/84	813'	1 1/2°
	844'	1 3/4°
	906'	1 1/2°
12/03/84	938'	1 3/4°
	969'	1 1/2°
	1030'	1 1/2°
12/04/84	1063'	1 3/4°
	1125'	1 1/2°
	1248'	2°
12/05/84	1340'	3°
	1371'	3°
	1433'	3 3/4°
12/06/84	1464'	3 3/4°
	1477'	3 1/2°
	1527'	3 3/4°
12/07/84	1588'	3 3/4°
	1620'	4°
	1680'	3 1/4°
12/08/84	1753'	3 3/4°
	1774'	4°

Chace Oil Company
Deviation Record
January 2, 1985
Page Two

DATE	DEPTH	DEVIATION
12/09/84	1805'	3 3/4°
	1868'	4 1/2°
	1899'	4 3/4°
12/10/84	1931'	4 1/2°
	1993'	4 1/2°
	2037'	4 3/4°
12/11/84	2085'	4 1/2°
	2114'	4 1/2°
	2145'	4 3/4°
	2175'	5°
12/12/84	2206'	5°
	2236'	5 1/4°
	2287'	5 1/4°
12/13/84	2328'	5 1/4°
	2390'	6°
	2450'	6°
	2512'	7°
12/14/84	2565'	8 1/4°
	2593'	8 1/2°
12/15/84	2654'	8 3/4°
	2684'	9°
12/16/84	2715'	9 1/4°
	2746'	9 1/2°
	2775'	9 1/4°
	2838'	10°
	2867'	9 3/4°
12/17/84	2900'	10 1/4°
	2930'	10 3/4°
	2960'	10 1/4°
	2992'	10°
	3014'	10 1/4°
12/18/84	3053'	10 1/4°
	3084'	10 1/2°
	3114'	10°
	3145'	10 1/4°
	3176'	10 1/2°
	3206'	10 1/2°

Chace Oil Company
 Deviation Record
 January 2, 1985
 Page Three

DATE	DEPTH	DEVIATION
12/20/84	3237'	10 3/4°
	3267'	11°
	3330'	12 1/4°
	3361'	12 1/2°
	3392'	13°
12/21/84	3423'	12°
	3453'	12 1/4°
	3484'	12 1/2°
	3514'	13°
	3545'	13 1/2°
12/22/84	3575'	14°
	3606'	15°
	3647'	15°
12/23/84	3699'	13 1/2°
	3729'	14 1/2°
	3760'	14°
	3791'	13°
	3821'	14°
12/24/84	3851'	13°
	3870'	13°
	3912'	14°
	3942'	15°
	3973'	15°
12/25/84	4005'	15°
	4035'	15 1/2°
	4065'	16°
	4095'	16 1/4°
	4126'	16 1/4°
12/25/84	4187'	16°
	4228'	16°

ARAPAHOE DRILLING CO., INC.

Steve Schalk
 Steve Schalk
 President

STATE OF NEW MEXICO
 COUNTY OF BERNALILLO



OFFICIAL SEAL
 LOIS CUNNINGHAM
 NOTARY PUBLIC - NEW MEXICO
 Notary Bond Filed with Secretary of State
 My Commission Expires: 3/7/87

Subscribed and sworn to before me, a Notary Public,
 this 2ND day of January, 1985, by Steve Schalk,
 President of Arapahoe Drilling Co., Inc.

Lois Cunningham
 Notary Public