FORM 371.0—3

SCHLUMBERGER WELL SURVEYING CORPORATION
HOUSTON, TEXAS

SCHLUMBERGER

Dipmeter

COUNTY Malheur
FIELD or LOCATION Wildcat-Vail Area
WELL Federal 1
COMPANY El Paso Natural Gas Co.

COMPANY El Paso Natural Gas Company
WELL Federal 1
FIELD Wildcat-Vail Area
LOCATION 5-20S-44E
COUNTY Malheur
STATE Oregon

Location of Well

Elevation: D.F.:
K.B.:
or G.L.:

FILING No.

RUN NO.	One
Date	12/31/54
Casing Depth	293
Total Depth	6530
Hole Diameter	17½ to 310
	9 to 6530
	to
Mud Nature	Jel-Caustic
Weight	10.1
Viscosity	47
Resistivity	2.3 at 70°
Max. Temp. °F	195°
Observer	Pound
Type Resistivity (AA)	10
S. P. (A)	
Magnetic Declination	17°E

TABLE OF VERTICAL DISPLACEMENT IN FEET CORRESPONDING TO VARIOUS HORIZONTAL DISTANCES AND ANGLES OF DIP

DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100'	1000'	1 mile (5280')
1	1.75	17.5	92.2
2	3.5	35.	184.
3	5.2	52.	277.
4	7.0	70.	369.
5	8.8	88.	462.
6	10.5	105.	555.
7	12.3	123.	648.
8	14.1	141.	742.
9	15.8	158.	836.
10	17.6	176.	931.
11	19.4	194.	1026.
12	21.3	213.	1122.
13	23.1	231.	1219.
14	24.9	249.	1316.
15	26.8	268.	1415.
16	28.7	287.	1514.
17	30.6	306.	1614.
18	32.5	325.	1716.

DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100'	1000'	(illegible) (5280')
19	34.4	344.	1818.
20	36.4	364.	1922.
21	38.4	384.	2027.
22	40.4	404.	2133.
23	42.5	425.	2241.
24	44.5	445.	2351.
25	46.6	466.	2462.
30	57.7	577.	3048.
35	70.0	700.	3697.
40	83.9	839.	4430.
45	100.0	1000.	5280.
50	119.2	1192.	6293.
55	142.8	1428.	7540.
60	173.2	1732.	9145.
65	214.4	2144.	11323.
70	274.8	2748.	14507.
75	373.2	3732.	19705.
80	567.1	5671.	29945.

To obtain vertical displacements corresponding to multiples of hundreds feet, thousands of feet or miles, multiply the number found in the table by the number of hundreds, thousands or miles.

Example: The formation dip is 16 degrees. The vertical displacement occurring at a spot 660 feet away from the well is desired. The table shows 28.7 feet per 100 feet for 16° dip. Therefore 28.7 x 6.60 = 189.42, or 189. feet.

STATION	Depth Interval	FROM MAGNETIC NORTH: Drift Azimuth	Drift Angle	Orient No. 1	Displacement of curves in reference to 1 (I)	(II)	Direction	Dip	FROM TRUE NORTH: AVERAGE DIRECTION	AV. DIP	Graph of Direction	REMARKS
AA1	1250 to	193	0-45	89	U3.1	U1.9	65	23	S 89 E	24		Fair.
AA2	1280			95	U3.4	U2.5	78	24				
BB1	1815 to	182	0-30	125	D1.2	0	251	11	S 86 W	12		Fair.
BB2	1837			357	0	D1.2	241	12				
CC1	2629 to	119	1-00	360	U1.4	U0.9	334	12	N 1 E	12		Good.
CC2	2656			142	D0.6	D1.3	348	11				
DD1	2950 to	93	2-00	40	D2.1	D3.2	243	26	S 74 W	25		Good.
DD2	2980			171	U0.6	U3.0	225	25				
EE1	3600 to	67	2-00	145	D2.2	D1.1	289	18	N 53 W	18		Good.
EE2	3626			251	U1.0	U2.2	285	18				
FF1	3837 to	68	2-00	310	U2.2	U1.0	275	18	N 68 W	19		Good.
FF2	3867			66	D1.4	D2.5	268	20				
GG1	4408 to	73	2-00	Indefinite.								
GG2	4438			271	U2.7	U1.7	250	22	West	22		Fair.
HH1	5080 to	60	2-00	63	D0.8	D2.2	275	18	N 64 W	18		Fair.
HH2	5108			70	D1.0	D2.2	277	18				
II1	5418 to	56	2-00	233	U1.8	0	180	17	S 18 W	16		Fair.
II2	5445			229	U1.5	0	176	15				
JJ1	5585 to	64	2-00	142	U1.3	0	91	10	S 71 E	10		Fair to good.
JJ2	5615			138	U1.4	0	87	11				
	to											
	to											
	to											
	to											
	to											
	to											
	to											