

COUNTY LEA FIELD Denton STATE NM
 NO 17 LEASE Denton API 30-025-25331
 Sec 11, T15S, R37E MAP
 2302 FNL, 2310 FEL of Sec CO-ORD
 1 1/2 mi S/Denton RPD 9-17-82 RE CMP 10-15-82 11-3-16 NM

13 3/8-360-350 sx
 8 5/8-4696-1850 sx
 5 1/2-13,045-750 sx

WELL CLASS: INITDX		FIN	DO LSE CODE	
FORMATION	DATUM		FORMATION	DATUM
TD 13,048 (PCNB)			PBD 11,700	

IP (Devonian) Perfs 11,388-673 P 151 BOPD + 481 BW. Pot
 based on 24 hr test. GOR 304; gty (NR)

CONTR OPRSTIV 3794 GL sub-s

11-15-82 F.R.C. 11-20-82 OWWO
 PD 11,700 WO
 (Orig. Cmp. 3-9-77 thru (Devonian) Perfs
 12,018-038, OTD 13,048, OPB 12,275)
 TD 13,048; PBD 11,700; Complete
 Perf (Devonian) 11,388-390, 11,394-409,
 11,427-429, 11,616-618, 11,627-629, 11,637-
 641, 11,650-665, 11,668-673, 11,727-732,
 11,742-745, 11,747-752, 11,776-780, 11,785-797
 BP @ 11,850
 Swbd 2 BO + 230 BW in 8 hrs (11,388-797)
 PB @ 11,700
 Acid (11,388-673) 2500 gals
 11-20-82 COMPLETION ISSUED

11-3-16 NM
 IC 30-025-70877-82

COUNTY	LEA	FIELD	Denton	STATE	NM
OPR	PHILLIPS PETROLEUM CO.			API	30-025-25331
NO	17	LEASE	Denton	SERIAL	4-1-9 NM
	Sec 11, T15S, R37E			MAP	
	2302' FNL, 2310' FEL of Sec			CO-ORD	
	4 mi S/Prairieview			ELEV	L 8

4 mi S/Fairview		D		DO	
SPD CSG	10-4-76	CMP	3-9-77	WELL CLASS:	INT.
13 3/8" at 360' w/350 sx 8 5/8" at 4696' w/1850 sx 5 1/2" at 13,045' w/750 sx				FORMATION	DATUM
TD 13,048' (PCMB)				PBD	12,275'

IP (Devonian) Perfs 12,018-038' F 374 BOPD + 48 BW. Pot based
on 24 hr test thru 26/64" ch. GOR 500; gry 44.4; CP Pkr;
TP 165#

770 Brahaney OPR'S ELEV 3794' GL PD

F.R. 9-13-76
(Devonian)

10-6-76 Drlg 1450' RB
10-15-76 TD 4700'; Prep Run 8 5/8" Csg
10-22-76 Drlg 6385' lm
10-28-76 Drlg 8232' lm
11-5-76 Drlg 9751'
11-12-76 Drlg 10,410' lm & sh
11-24-76 TD 10,488'; Drlg Cmt 9772'
Lost Circ 9800-50'
Sqzd Lost circ zone w/625 sx

12-2-76 Drlg 11,156' lm
12-10-76 Drlg 11,734' lm

4-1-9 NM

12-16-76 TD 11,734'; Drig by @ 10,766'
Dild off w/dyna drill 10,753'
12-29-76 TD 11,734'; Drig by @ 11,054'
1-7-77 TD 11,734'; Drig by @ 11,246'
1-13-77 TD 11,734'; STTD 11,691'; Peng
1-21-77 Drig 12,485' in 8 hrs
1-26-76 Drig 13,040'
2-7-77 TD 13,048'; WOCU
2-10-77 TD 13,048'; Swbg
Perf (Devonian) 12,900-910' w/4 SPF
2-17-77 TD 13,048'; Swbg
Swbd 24 BW + 115 B-W in 9 hrs
(12,900-910')
CIBP @ 12,860'

4-1-9 NM

2-17-77 Continued
Perf (Devonian) 12,748-754', 12,756-760',
12,801-811' w/2 SPF
2-24-77 TD 13,048'; PBD 12,860'; SD Weather
Acid (12,748-811') 1000 gals
Swbd SW (12,748-811')
3-4-77 TD 13,048'; PBD 12,580'; Prep Perf
RBP @ 12,580'
Perf (Montoya) 12,522-530', 12,542-546' w/2 SPF
Swbd dry (12,522-546')
Acid (12,522-546') 1000 gals
Swbd 8 BO + 132 BW in 8 hrs (12,522-546')
Sqzd Perfs (12,522-546') w/30 sx
3-10-77 TD 13,048'; PBD 12,275'; WOSP
BP @ 12,275'

4-1-9 NM

3-10-77 Continued
Perf (Devonian) 12,018-038' w/2 SPF
Swbd dty (12,018-038')
Acid (12,018-038') 4000 gals
Flwd 364 BO + 48 BSW in 24 hrs thru 26/64"
chk, FTP 165# (12,018-038')

3-28-77 TD 13,048'; PBD 12,275'; Complete
LOG TOPS: Yates 3050', Grayburg 4293',
San Andres 4548', Glorieta 6185', Blinbry
6740', Tubb 7280', Drinkard 7417', Abo
7890', Wolfcamp 9026', Strawn 10,050', Barnett
10,372', Mississippian 10,490', Woodford
11,256', Devonian 11,383', Montoya 12,490',

4-1-9 NM

3-28-77 Continued
Granite Wash 12,880', Pre-Cambrian 12,963'
LOGS RUN: CNL, FDC, BHC, DILL, SONL, GRL
BHT 180 deg

4-2-77 COMPLETION ISSUED

4-1-9 NM
LC 30-025-70155-76

DIRECTIONAL DRILLING REPORT

ALL CALCULATIONS PERFORMED BY ELECTRONIC COMPUTER
USING THE RADIUS OF CURVATURE METHOD

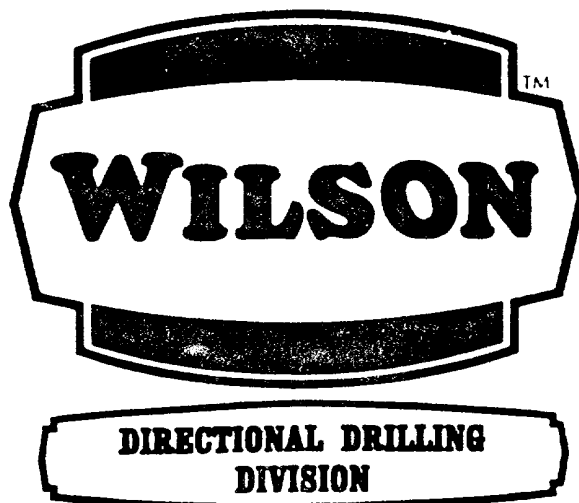
DATE February 4, 1977

COMPANY PHILLIPS PETROLEUM COMPANY

WELL DENTON NO. 17

LOCATION LEA COUNTY, NEW MEXICO

MAGNETIC DECLINATION 10° EAST



JOB # 55515

PHILLIPS PETROLEUM COMPANY

DENTON WELL NO. 17

LEA COUNTY, NEW MEXICO

JOB NO. 55515

COORDINATES AT 10743 FROM MULTISHOT SURVEY

DATE OF SURVEY 1-31-77

VERTICAL SECTION COMPUTED ALONG CLOSURE

MAGNETIC CORRECTION 10DEG EAST

WILSON DOWNHOLE DIRECTIONAL DRILLING

RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES		
		DEG	MIN				NORTH	SOUTH	EAST
10743	10735.88	4	0	S 0 W	.00	227.51	244.66	244.66	72.73
10790	10782.77	4	0	S 69 W	3.68	230.63	246.43	246.43	75.40
10819	10811.70	4	0	N 70 W	9.65	231.95	246.45	246.45	77.30
10879	10871.56	4	0	N 80 W	1.16	233.94	245.37	245.37	81.32
10940	10932.41	4	0	N 78 W	.23	236.23	244.55	244.55	85.50
11002	10994.27	3	45	N 87 W	1.06	238.67	244.00	244.00	89.64
11053	11045.17	3	45	N 38 W	6.09	239.51	242.60	242.60	92.33
11099	11091.08	3	30	N 17 W	2.92	238.60	240.07	240.07	93.67
11161	11152.98	3	15	N 35 W	1.75	237.32	236.82	236.82	95.23
11184	11175.93	3	45	N 19 W	4.75	236.84	235.57	235.57	95.85
11246	11237.80	3	45	N 33 W	1.47	235.43	231.96	231.96	97.61
11309	11300.70	2	45	N 55 W	2.51	235.17	229.36	229.36	99.97
11370	11361.64	2	30	N 63 W	.73	235.77	227.92	227.92	102.36
11420	11411.58	3	0	N 48 W	1.74	236.11	226.55	226.55	104.30
11480	11471.51	2	30	N 42 W	.96	236.05	224.52	224.52	106.35
11543	11534.45	2	45	N 57 W	1.16	236.22	222.68	222.68	108.53
11605	11596.37	3	0	N 60 W	.47	236.87	221.06	221.06	111.18
11667	11658.29	2	45	N 40 W	1.66	237.08	219.11	219.11	113.55
11742	11733.21	2	45	N 55 W	.96	237.15	216.70	216.70	116.18
11802	11793.13	3	0	N 63 W	.79	237.80	215.16	215.16	118.75
11896	11887.01	2	45	N 67 W	.34	239.29	213.16	213.16	123.02
11958	11948.94	2	45	N 64 W	.23	240.26	211.93	211.93	125.73
12050	12040.82	3	0	N 68 W	.35	241.81	210.06	210.06	129.94
12112	12102.74	3	0	N 53 W	1.26	242.59	208.48	208.48	132.74
12206	12196.60	3	15	N 70 W	1.02	243.93	206.08	206.08	137.21

PHILLIPS PETROLEUM COMPANY
DENTON WELL NO. 17
LEA COUNTY, NEW MEXICO
JOB NO. 55515
COORDINATES AT 10743 FROM MULTISHOT SURVEY

PAGE 2

DATE OF SURVEY 1-31-77

VERTICAL SECTION COMPUTED ALONG CLOSURE

MAGNETIC CORRECTION 10 DEG EAST

WILSON DOWNHOLE DIRECTIONAL DRILLING
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES		
		DEG	MIN	DEG				NORTH	SOUTH	EAST WEST
12300	12290.46	3	0	N 68 W		.29	245.89	204.25	204.25	142.00
12392	12382.33	3	15	N 60 W		.55	247.39	202.04	202.04	146.49
12490	12480.18	3	0	N 62 W		.28	248.72	199.45	199.45	151.16
12582	12572.04	3	15	N 57 W		.40	249.84	196.90	196.90	155.47
12674	12663.91	3	0	N 55 W		.30	250.67	194.10	194.10	159.63
12766	12755.80	2	30	N 58 W		.57	251.43	191.66	191.66	163.30
13046	13035.36	4	0	N 86 W		.77	258.86	187.74	187.74	178.23

THE CALCULATION PROCEDURES ARE BASED ON THE USE OF THE RADIUS OF CURVATURE METHOD

ALL CALCULATIONS PERFORMED BY A UNIVAC 1108 COMPUTER

HORIZONTAL DISPLACEMENT = 258.86 FEET AT SOUTH 43 DEG. 30 MIN. WEST (TRUE)

COMPANY **PHILLIPS PETROLEUM COMPANY**

WELL
DENTON NO. 17

LOCATION
LEA COUNTY, NEW MEXICO

DATE 2/04/77

PAGE 4 of 7

[illegible]

CLOSURE:	Distance	Direction
	258.86'	S 43° 30' W

WILSON SUPERVISOR: Jim Wilson

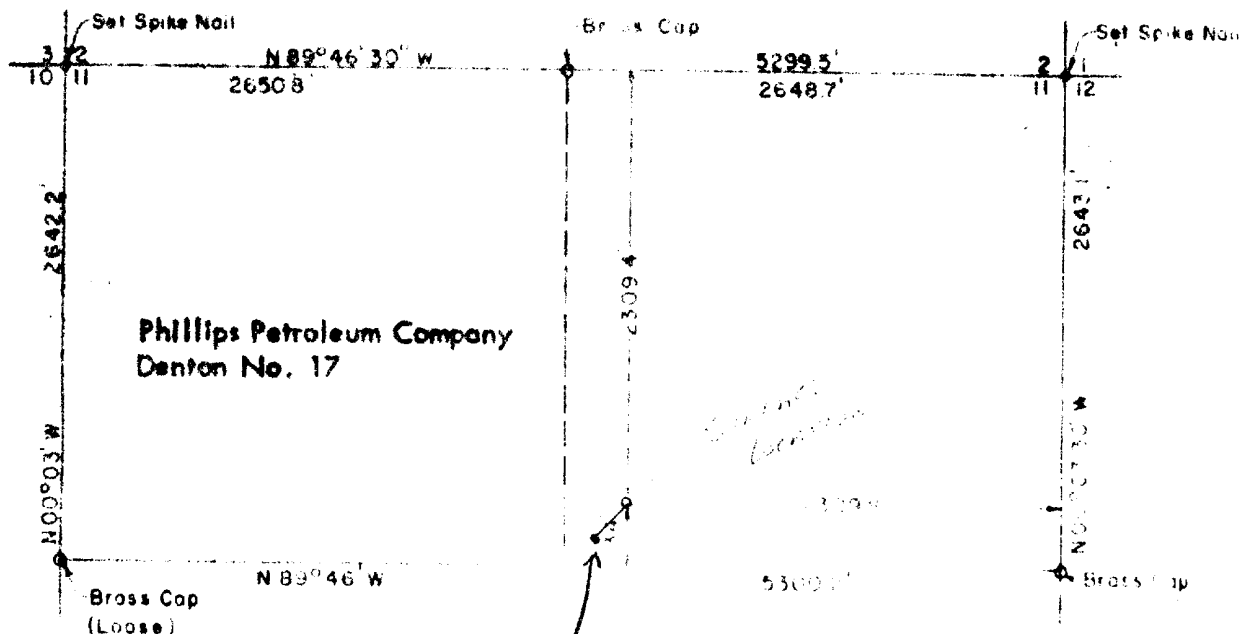
WE CERTIFY THAT THIS IS A TRUE AND CORRECT REPORT OF OUR SURVEY AND THAT IT AFFORDS A TRUE AND CORRECT REPRESENTATION OF OUR FINDINGS AS TO THE NATURE AND CONDITIONS OF THE WELL AT THE TIME THE SURVEY WAS MADE.

BEFORE ME THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED
Jim Wilson, KNOWN TO ME TO
 BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THIS INSTRUMENT, WHO AFTER BEING
 DULY SWORN ON OATH, STATES THAT THE SAME IS A TRUE AND CORRECT STATEMENT
 OF THE FACTS THEREIN RECITED.

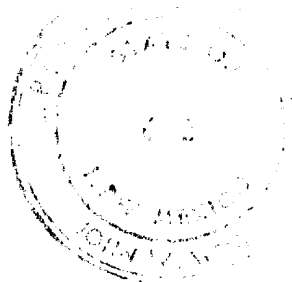
SUBSCRIBED AND SWORN TO BEFORE ME THIS 4th DAY
 OF February, 1977

NOTARY PUBLIC IN AND FOR HARRIS COUNTY, TEXAS

WISON INDUSTRIES INC.
Directional Drilling Division



B.H. Loc.
258.86'
S43°30'W



I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

John W. West
JOHN W. WEST, N.M. P.E. 545676
TEXAS R.P.S. NO. 1112

PHILLIPS PETROLEUM COMPANY

Outside Boundaries of N $\frac{1}{2}$ Section 11, Township 15 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

JOHN W. WEST ENGINEERING COMPANY CONSULTING ENGINEERS MOBBS, NEW MEX.	
Scale 1"=1000 Date 12-24-76	Drawn by Presley Sheet of Sheets

TRUE VERTICAL DEPTH

VERTICAL SECTION

10735.

250.

500.

X 10790.

10985.

X 11002.

11235.

X 11246.

11485.

X 11543.

11735.

X 11802.

11985.

X 12050.

12235.

X 12300.

12485.

X 12582.

12735.

X 12766.

12985.

258.86 X 13046. T.M.D.

13235.

PHILLIPS PETROLEUM COMPANY
DENTON WELL NO. 17
LEA COUNTY, NEW MEXICO

JOB NO. 55515

COORDINATES AT 10743 FROM MULTISHOT SURVEY

VERTICAL SECTION COMPUTED ALONG CLOSURE

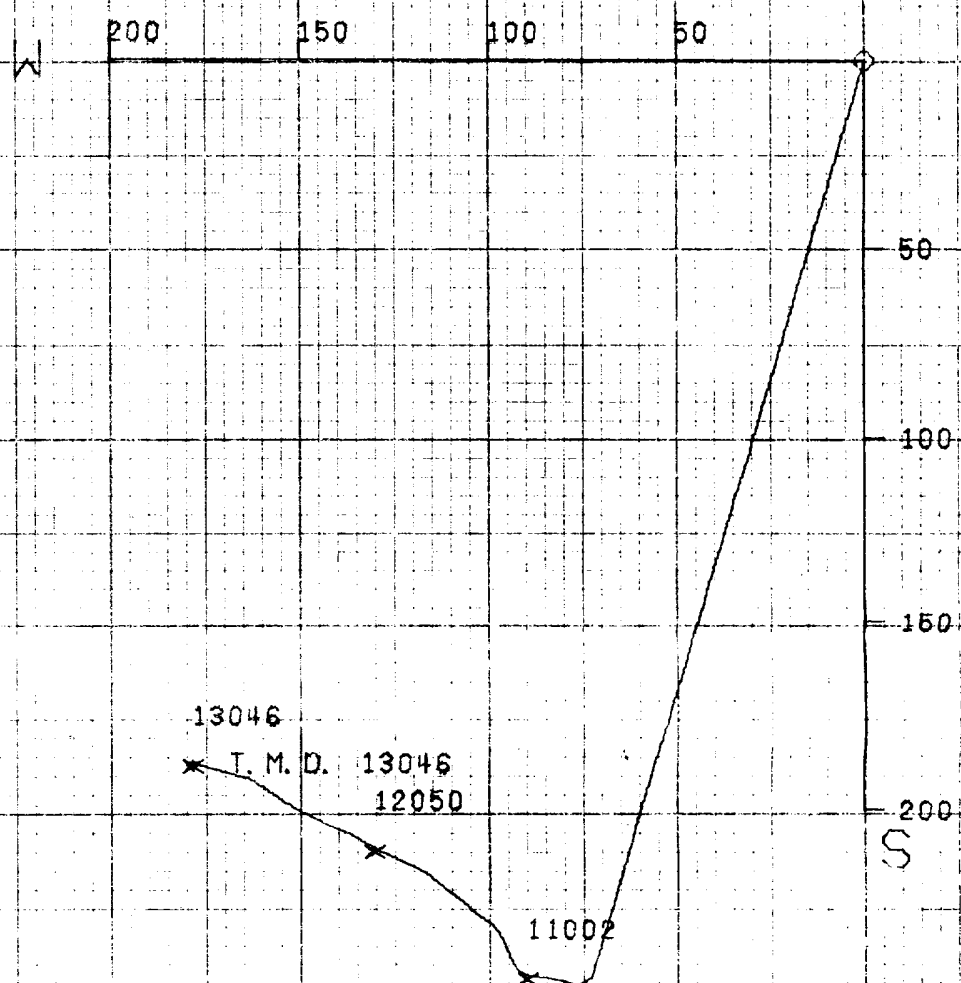
VERTICAL SECTION = 258.86

HORIZONTAL DISPLACEMENT = 258.86 FEET AT SOUTH 43 DEG. 30 MIN. WEST (TRUE)

TRUE VERTICAL DEPTH = 13035.86

MEASURED DEPTH = 13046.00

SCALE 1" = 250.00



PHILLIPS PETROLEUM COMPANY

DENTON WELL NO. 17

LEA COUNTY, NEW MEXICO

JOB NO. 55515

COORDINATES AT 10743 FROM MULTISHOT SURVEY

VERTICAL SECTION COMPUTED ALONG CLOSURE

HORIZONTAL DISPLACEMENT = 258.86 FEET AT SOUTH 43 DEG. 30 MIN. WEST (TRUE)

TRUE VERTICAL DEPTH = 13035.36

MEASURED DEPTH = 13046.00

SCALE 1" = 50.00

⊙ = SUR. LOC.

* = B.H. LOC.

sperry-sun



J. A. Fouché
President

FIELD: Denton Devonian
LEASE: Denton
WELL : No. 17

January 7, 1977

Phillips Petroleum
4th & Washington
Odessa, TX 79760

Gentlemen:

The enclosed film and five folders contains the results of our Gyroscopic Multishot and Magnetic Multishot job nos SU3-6629 and MS-6630, Denton lease, well no. 17, Denton Devonian field, in Lea County, New Mexico on December 10, 1976. The Gyro was from surface to a depth of 4,700 feet and the Magnetic Multishot was from 4,700 feet to a depth of 11,734 feet.

One of these folders contains the original of the computation sheets, field data sheets, and certification. Bottom hole location has been plotted in relation to surface location on the certified plat furnished by you and copies of same have been included in all folders.

The operator on these surveys was Jimmy McKelvain.
It has been a pleasure to perform these surveys for you.

Very truly yours,

SPERRY-SUN, INC.

Tom Hamlin
District Manager

TH/jp
enclosures

PHILLIPS PETROLEUM COMPANY

DENTON NO. 1

DEVONIAN FIELD

LEA COUNTY, NEW MEXICO

SEISMOLOGIC AND MAGNETIC 400-FT SHOT SURVEY

DATE OF SURVEY
10-10-1970
CLOSURE

SPERRY-SUN INC.
RECORD OF SURVEY

MEASURED DEPTH	TRUE DEPTH	SURFACE	INCLINATION DEG MIN	COURSE	DIRECTION	SEV	DEG/100	REMARKS
200	200.00	-3594.00	0 5	S 61 58 E		.04		
400	400.00	-3594.00	0 15	S 1 13 E		.11		
600	600.00	-3594.00	0 30	N 59 28 W		.17		
800	800.00	-3594.00	0 20	S 75 21 W		.11		
1000	1000.00	-3594.00	0 30	N 77 47 W		.10		
1200	1199.99	-2394.01	0 15	N 83 9 E		.21		
1400	1399.99	-2394.01	0 10	N 5 51 W		.15		
1600	1599.99	-2194.01	0 10	S 25 47 E		.16		
1800	1799.99	-1994.01	0 20	S 73 42 E		.13		
2000	1999.99	-1794.01	0 10	N 57 48 E		.13		
2200	2199.98	-1594.02	0 30	S 8 55 W		.28		
2400	2399.96	-1394.04	1 20	S 24 58 W		.43		
2600	2599.94	-1194.12	1 30	S 21 0 W		.26		
2800	2799.92	-994.20	1 40	S 30 0 W		.43		
3000	2999.90	-794.28	1 50	S 47 39 W		.31		
3200	3199.87	-594.36	0 00	S 30 56 W		.21		
3400	3399.85	-394.44	0 25	S 18 8 E		.25		
3600	3599.83	-194.52	0 15	N 45 45 E		.29		
3800	3799.81	0.00	0 10	S 62 21 E		.15		
4000	3999.79	2000.00	0 00	S 52 28 E		.25		
4200	4199.77	4000.00	0 20	S 60 4 E		.17		
4400	4399.75	6000.00	1 0	S 64 14 E		.29		
4600	4599.73	8000.00	0 15	S 62 21 E		.21		
4800	4799.71	10000.00	0 30	S 82 28 E		.21		
5000	4999.69	12000.00	0 40	S 87 0 E		.23		
5200	5199.67	14000.00	1 0	N 90 0 E		.13		
5400	5399.65	16000.00	1 0	S 66 0 E		.21		
5600	5599.63	18000.00	1 0	S 76 0 E		.09		
5800	5799.61	20000.00	1 0	S 43 0 E		.27		
6000	5999.59	22000.00	1 0	S 43 0 E		.27		
6200	6199.57	24000.00	1 0	S 43 0 E		.27		
6400	6399.55	26000.00	1 0	S 43 0 E		.27		
6600	6599.53	28000.00	1 0	S 43 0 E		.27		
6800	6799.51	30000.00	1 0	S 43 0 E		.27		
7000	6999.49	32000.00	1 0	S 43 0 E		.27		
7200	7199.47	34000.00	1 0	S 43 0 E		.27		
7400	7399.45	36000.00	1 0	S 43 0 E		.27		
7600	7599.43	38000.00	1 0	S 43 0 E		.27		
7800	7799.41	40000.00	1 0	S 43 0 E		.27		
8000	7999.39	42000.00	1 0	S 43 0 E		.27		
8200	8199.37	44000.00	1 0	S 43 0 E		.27		
8400	8399.35	46000.00	1 0	S 43 0 E		.27		
8600	8599.33	48000.00	1 0	S 43 0 E		.27		
8800	8799.31	50000.00	1 0	S 43 0 E		.27		
9000	8999.29	52000.00	1 0	S 43 0 E		.27		
9200	9199.27	54000.00	1 0	S 43 0 E		.27		
9400	9399.25	56000.00	1 0	S 43 0 E		.27		
9600	9599.23	58000.00	1 0	S 43 0 E		.27		
9800	9799.21	60000.00	1 0	S 43 0 E		.27		
10000	9999.19	62000.00	1 0	S 43 0 E		.27		

PHILLIPS PETROLEUM COMPANY

DENISON NO.

DEWON-DEVONIAN FIELD

LEA COUNTY, NEW MEXICO

GEOMAGNETIC AND MAGNETIC MULTISPECT SURVEY

DATE OF SURVEY

DEC 10, 1976

HORIZONTAL SECTION DIRECTION

CLOSURE

SU3-6629-MS-0500

SPERRY-SUN INC.

RECORD OF SURVEY

HEADING	VERTICAL	TRUE	SUR	INCLINATION DEG MIN	COURSE DEG MIN	DIRECTION	CORRECTION DEG MIN	TOTAL	COORDINATES EAST/WEST	VERTICAL SECTION
6000	5999.50	3205.50	2205.50	1 30	S 20	O E	.23	34.04 S	21.57 E	20.07
6200	6199.42	2405.42	2405.42	1 45	S 12	O E	.17	39.49 S	23.13 E	24.16
6400	6399.32	2605.32	2605.32	1 45	S 9	O E	.08	45.49 S	24.24 E	28.96
6600	6599.24	2805.24	2805.24	1 30	S 0	O E	.00	51.49 S	24.69 E	33.76
6800	6799.16	3005.16	3005.16	1 45	S 8	O W	.12	57.49 S	24.23 E	38.56
7000	6999.06	3205.06	3205.06	2 0	S 8	O W	.12	63.49 S	23.38 E	43.36
7200	7199.93	3404.93	3404.93	2 0	S 11	O W	.05	70.17 S	22.23 E	51.73
7400	7399.81	3604.81	3604.81	2 0	S 20	O W	.16	76.50 S	20.36 E	58.55
7600	7599.68	3804.68	3804.68	2 15	S 17	O W	.14	83.33 S	18.01 E	65.37
7800	7799.52	4004.52	4004.52	2 15	S 22	O W	.10	89.33 S	15.39 E	72.19
8000	7999.33	4204.33	4204.33	2 45	S 19	O W	.26	99.50 S	12.34 E	82.29
8200	8199.10	4404.10	4404.10	2 45	S 21	O W	.05	108.52 S	9.01 E	91.80
8400	8399.00	4603.99	4603.99	2 30	S 24	O W	.18	116.94 S	5.55 E	100.92
8600	8599.84	4803.84	4803.84	3 15	S 22	O W	.20	125.33 S	1.83 E	110.92
8800	8799.68	5003.68	5003.68	3 30	S 24	O W	.20	133.73 S	0.16 W	120.92
9000	8999.52	5203.52	5203.52	3 30	S 24	O W	.06	142.14 S	8.32 W	134.86
9200	9199.49	5403.49	5403.49	4 0	S 25	O W	.25	150.94 S	13.74 W	147.92
9400	9399.37	5603.37	5603.37	4 15	S 26	O W	.13	159.93 S	19.94 W	162.29
9600	9599.24	5803.24	5803.24	4 0	S 28	O W	.12	168.85 S	26.24 W	175.67
9800	9799.08	6003.08	6003.08	4 15	S 31	O W	.13	177.73 S	32.21 W	191.84
10000	9999.01	6202.91	6202.91	3 15	S 36	O W	.65	210.33 S	38.65 W	204.11
10200	10199.19	6402.81	6402.81	3 15	S 44	O W	.23	219.02 S	45.94 W	215.19
10400	10399.33	6602.66	6602.66	3 30	S 48	O W	.17	227.20 S	53.81 W	226.38
10600	10599.49	6802.51	6802.51	4 15	S 49	O W	.20	236.13 S	64.53 W	239.02
10800	10799.68	7002.33	7002.33	5 0	S 48	O W	.81	247.18 S	76.33 W	254.24
11000	10999.81	7199.01	7199.01	4 45	S 48	O W	.18	258.85 S	88.66 W	270.34
11200	11199.17	7397.17	7397.17	5 45	S 47	O W	.50	271.21 S	102.15 W	287.57
11400	11399.45	7595.45	7595.45	6 45	S 52	O W	.35	279.70 S	112.08 W	299.70
11600	11599.72	7794.72	7794.72	7 45	S 47	O W	2.84	288.96 S	120.87 W	309.34

PHILLIPS OIL COMPANY

DENTON NO. 17

DEWON DEVONIAN FIELD

LEA COUNTY, NEW MEXICO

GYROSCOPIC AND MAGNETIC MULTISHOT SURVEY

DATE OF SURVEY
VERTICAL SECTION DESCRIPTION

DEC 20, 1976

CLOSURE

SPERRY-SUN INC.

RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	SUR SEA TWD	COURSE INCLINATION	COURSE	006-LEG	RECTANGULAR NORTH/SOUTH	CUMULATIVE
11515	11503.19	7709.19	5 45	5 33	0 W	304.77 S	198.35 W
11600	11586.93	7792.93	5 30	5 37	0 W	314.36 S	162.05 W
11700	11685.52	7391.52	10 15	5 41	0 W	317.27 S	157.18 W
11734	11719.02	7025.02					

** THE CALCULATIONS ARE BASED ON THE AVERAGE ANGLE METHOD **

HORIZONTAL DISPLACEMENT = 358.89 FEET AT SOUTH 27 DEG. 46 MIN. WEST (TRUE)

START OF SURVEY WAS 1739.00 FEET ABOVE SEA LEVEL

STATE OF Texas
COUNTY/PARISH OF Ector

I/We, J.D. McKelvain

_____, in the employ of the Directional Surveying Department of
Sperry-Sun Well Surveying Company, did on the 10th day of December 19 76
and the _____ day of _____ 19_____
and the _____ day of _____ 19_____
and the _____ day of _____ 19_____

respectively conduct or supervise the taking of a Multi-shot/~~Single Shot~~ Directional survey by method indicated:

from a depth of -0- feet to 4,700 feet by Gyroscopic/Magnetic/Oriented Survey
depth of 4,700 feet to 11,734 feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
with records of inclination and direction of inclination being taken at approximately every 200 feet.

This survey was conducted at the request of Phillips Petroleum,

for their Denton Lease Well No. 17,

_____ Survey, _____ Lea _____ County/Parish,

State of New Mexico, in the Denton Devonian Field.

I/We certify that this is a true and correct report of such survey and that it affords a true and correct representation of our findings as to the nature and conditions of the well at the time the survey was/surveys were made.

J. D. McKelvain

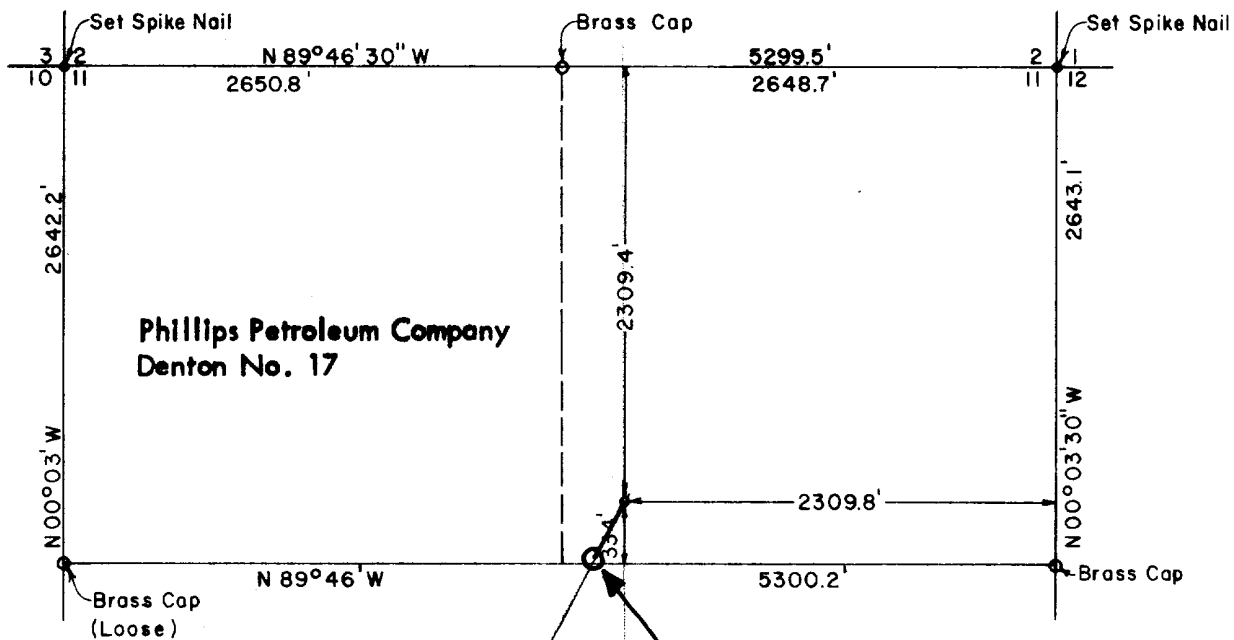
STATE OF _____
COUNTY/PARISH OF _____

Before me the undersigned authority/authorities, on this day personally appeared _____,

known to me to be the person/persons whose name is/names are subscribed to this instrument, who after being by me duly sworn on oath, states that he has/they have knowledge of all the facts stated above and that the same is a true and correct statement of the facts therein recited.

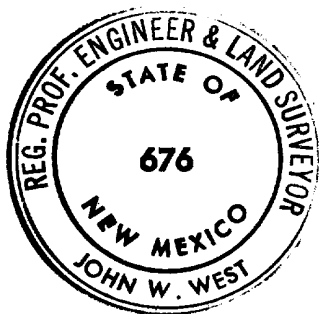
Subscribed and sworn to before me this the _____ day of _____ 19_____.

Notary Public in and for _____



Phillips Petroleum Company
Denton No. 17

SPERRY-SUN JOB NO. SH-3-6629/MS-6630
DATE SURVEYED December 10, 1976
SURVEYED FROM Surface TO 11734'
TIE-ON COORDINATES FROM _____
BHL AT 11734' FT. (MD) = 358.59 FT.
AT South 27° 46' West
BHL IS 17' ± TO South LEASE LINE.



I HEREBY CERTIFY THAT THIS PLAT WAS
MADE FROM NOTES TAKEN IN THE FIELD IN
A BONA FIDE SURVEY MADE UNDER MY SUPER-
VISION, AND THAT THE SAME IS TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF.

John W. West
JOHN W. WEST, N.M. P.E. & L.S. NO. 676
TEXAS R.P.S. NO. 1138

PHILLIPS PETROLEUM COMPANY

Outside Boundaries of N $\frac{1}{2}$ Section 11, Township 15
South, Range 37 East, N.M.P.M., Lea County,
New Mexico.

JOHN W. WEST ENGINEERING COMPANY
CONSULTING ENGINEERS HOBBES, NEW MEXICO

Scale 1"=1000	Drawn by Presley
Date 12-24-76	Sheet of Sheets

HORIZONTAL PROJECTION
 FOR
 PHILLIPS PETROLEUM COMPANY
 DENTON No. 17
 DENTON DAMMERS FIELD
 LEE COUNTY, NEW MEXICO
 SURVEY BY GEORGE W. WILSON
 MAPPING NUMBER MS-6630
 SURVEY DATE - DECEMBER 10, 1976

True North

ORIGIN AT
 THE SURFACE

HORIZONTAL DISPLACEMENT
 EQUALS 358.59'
 AT SOUTH 27°46' WEST
 SOUTH = 317.21'
 WEST = 167.10'

MD = 11734'
 TVD = 11719.02'

SOUTH LEASE LINE

200 180 160 140 120 100 80 60 40 20 0 20 40

0

20

40

60

80

100

120

140

160

180

200

220

240

260

280

300

320

