

DIRECTIONAL DRILLING REPORT

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

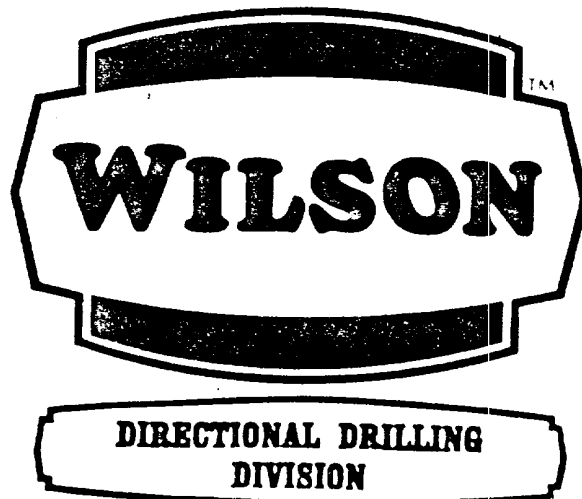
DATE DECEMBER 14, 1984

COMPANY AMOCO PRODUCTION CO.

WELL SOUTH HOBBS UNIT COOP WELL #9

LOCATION LEA COUNTY, NEW MEXICO

MAGNETIC DECLINATION TRUE 10 DEGREES EASTERLY



JOB NO. D4-66432

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DEC 28 1984

OFFICE
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AMOCO PRODUCTION COMPANY
SOUTH HOBBS UNIT COOP WELL #8
LEA COUNTY, NEW MEXICO

WILSON DOWNHOLE DIRECTIONAL DRILLING
TRUE 10 DEGREES EASTERLY
12-11-84 JOB NO. D4-66432

RECORD OF SURVEY

ALL CALCULATIONS PERFORMED BY DIGITAL ELECTRONIC COMPUTER

RADIUS OF CURVATURE METHOD

MEAS. DEPTH	DRIFT ANGLE D M	TRUE VERTICAL DEPTH	VERTICAL SECTION	DRIFT DIREC DEG	PAGE 1	TOTAL COORDINATES	C L O S U R E S		DOG LEG SEVERITY DEG/100FT
							DISTANCE	ANGLE D N S	
1633	0 30	1632.97	-5.47	N 85 W	7.53	N	7.57	N 5 50 19 W	0.000
1823	0 45	1822.96	-6.70	S 67 W	7.12	N	7.63	N 21 3 43 W	0.207
2012	10 45	2010.88	10.41	S 47 E	5.43	S	10.56	S 59 2 44 E	7.358
2105	12 15	2102.01	28.92	S 46 E	18.20	S	28.93	S 51 1 24 E	1.627
COORDINATES AT 1633' TAKEN FROM A.M.F.S. MULTI SHOT SURVEY									
2261	14 45	2253.69	65.30	S 51 E	42.20	S	65.30	S 49 44 40 E	1.769
2383	16 15	2371.25	97.87	S 53 E	62.25	S	97.88	S 50 30 40 E	1.305
2507	18 0	2489.75	134.29	S 54 E	83.95	S	134.36	S 51 19 47 E	1.431
2662	20 30	2636.05	185.23	S 54 E	113.98	S	185.41	S 52 3 55 E	1.613
2784	20 15	2750.42	227.47	S 57 E	138.04	S	227.81	S 52 42 13 E	0.880
2971	19 15	2926.42	290.25	S 55 E	173.35	S	290.90	S 53 25 28 E	0.645
3062	19 15	3012.33	320.14	S 54 E	190.77	S	320.90	S 53 31 30 E	0.362
3200	19 0	3142.72	365.27	S 52 E	217.97	S	366.11	S 53 27 39 E	0.508
3386	17 15	3319.47	423.07	S 52 E	253.59	S	423.95	S 53 15 42 E	0.941
3460	18 0	3389.99	445.47	S 48 E	268.00	S	446.30	S 53 5 45 E	1.925
3521	18 0	3448.01	464.31	S 48 E	280.61	S	465.08	S 52 53 23 E	0.000

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MEAS. DRIFT		TRUE		VERTICAL		VERTICAL		DRIFT		PAGE		COORDINATES		C L O S U R E S		DOG LEG	
DEPTH ANGLE		DEPTH		SECTION		DIREC		DEG		TOTAL		D M S		DISTANCE		SEVERITY	
D	M	D	M									D	M	S			DEG/100FT
3551	19 45	3476.39		474.00	S 45 E	287.30	S	377.92	E	474.72	S 52 45 29	E	6.670				
3582	20 15	3505.53		484.53	S 42 E	294.99	S	385.22	E	485.19	S 52 33 22	E	3.682				
3645	20 15	3564.63		506.02	S 38 E	311.68	S	399.22	E	506.48	S 52 1 13	E	2.197				
3713	19 30	3628.59		528.88	S 46 E	328.84	S	414.64	E	529.20	S 51 34 57	E	4.146				
3751	21 45	3664.16		542.25	S 48 E	337.96	S	424.43	E	542.55	S 51 28 16	E	6.205				
3774	25 0	3685.27		551.37	S 50 E	343.94	S	431.32	E	551.66	S 51 25 52	E	14.546				
3843	27 30	3747.15		581.88	S 48 E	363.97	S	454.33	E	582.15	S 51 18 5	E	3.843				
3936	28 15	3829.35		625.35	S 48 E	393.07	S	486.65	E	625.56	S 51 4 20	E	0.806				
4059	28 45	3937.45		684.00	S 47 E	432.72	S	529.91	E	684.14	S 50 45 56	E	0.562				
4182	29 45	4044.76		744.03	S 47 E	473.71	S	573.87	E	744.12	S 50 27 42	E	0.813				
4274	30 45	4124.23		790.31	S 46 E	505.61	S	607.48	E	790.36	S 50 13 45	E	1.217				
4367	32 45	4203.31		839.12	S 45 E	539.92	S	642.37	E	839.14	S 49 57 10	E	2.224				
4485	34 15	4301.70		904.03	S 45 E	585.97	S	688.42	E	904.04	S 49 35 47	E	1.271				
BOTTOM HOLE CLOSURE				904.04 FEET AT		S 49 35 47 E											

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LOCATION LEA COUNTY, NEW MEXICO

DATE NOVEMBER 11, 1984

PAGE 4 of 6

[illegible]

CLOSURE: Distance 904.04' Direction S 49° 35' 47" E

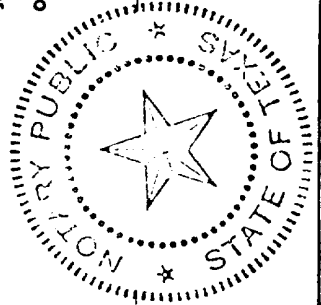
WILSON SUPERVISOR: THOMAS WRIGHT

BEFORE ME THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED
Thomas Wright, 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 THE Eleventh DAY
OF November 1984

Harry S. Walker

WILSON INDUSTRIES INC.
Directional Drilling Division



NOTARY PUBLIC IN AND FOR HARRIS COUNTY, TEXAS

1947, Dec. 1, Vol. 9, No. 12
 The American Medical Association
 535 North Dearborn Street, Chicago 10, Ill.
 Sold by The L. A. S. Co., Inc.

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AMOCO PRODUCTION COMPANY
SOUTH HOBBS UNIT COOP WELL #8
LEA COUNTY, NEW MEXICO

WILSON DOWNHOLE DIRECTIONAL DRILLING
TRUE 10 DEGREES EASTERLY
12-11-84 JOB NO. D4-66432

INITIAL SURVEY POINT

MD 1633.00 FEET
TVD 1632.97 FEET
NORTH 7.53 FEET
WEST 0.77 FEET

BOTTOM HOLE LOCATION

MD 4485.00 FEET
TVD 4301.70 FEET
SOUTH 585.96 FEET
EAST 688.42 FEET

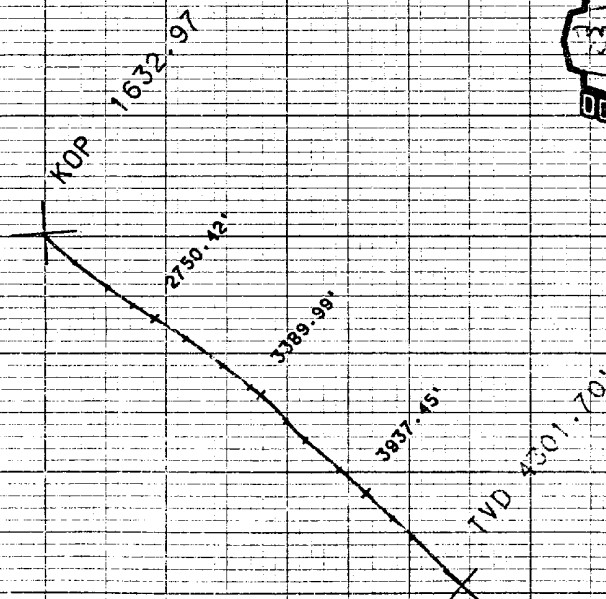
CLOSURE = 904.04' S 49° 35' 48" E

HORIZONTAL PLOT

SCALE - 1 INCH = 200 FEET

0 200 400 600 800

N



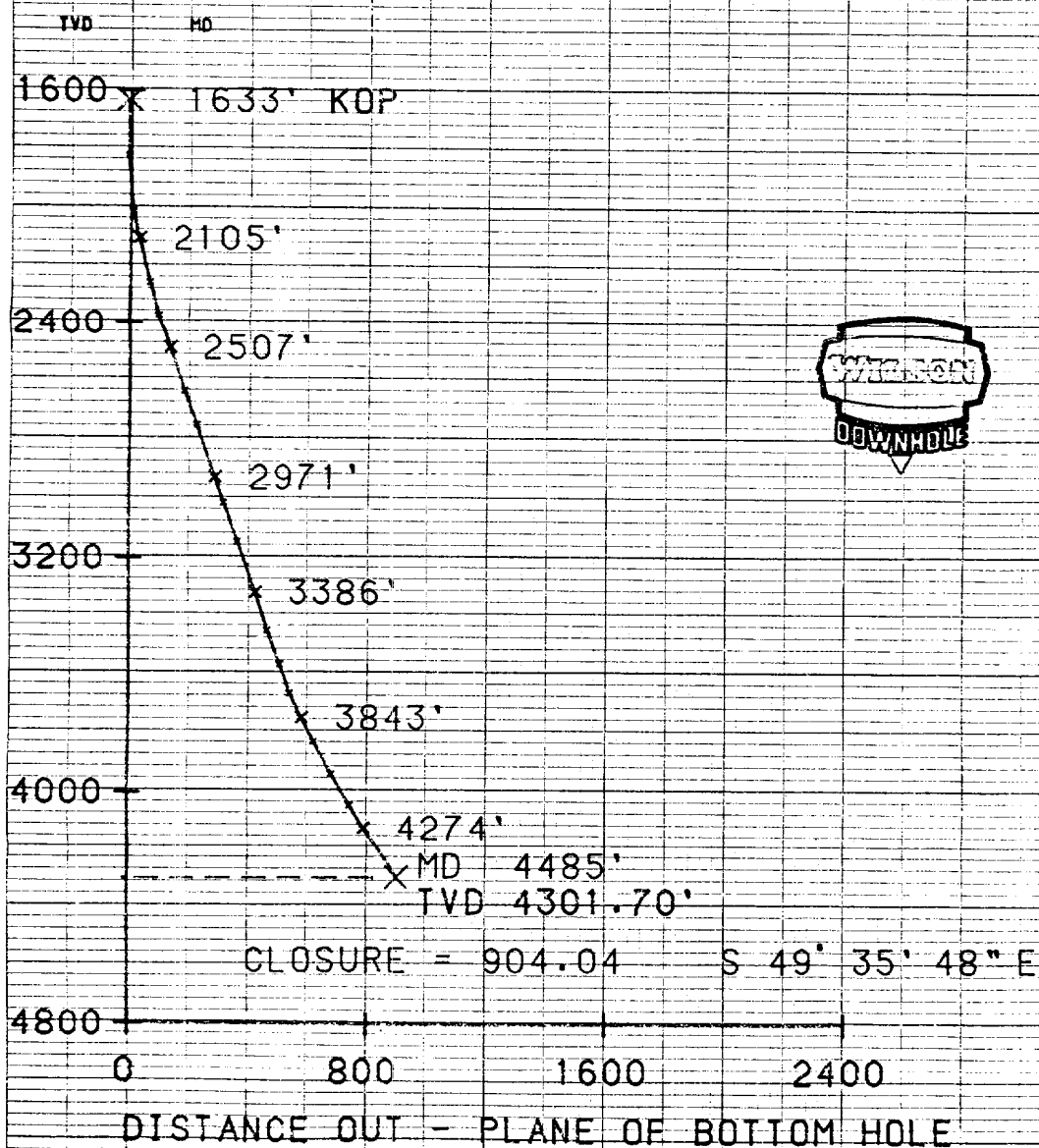
0
-200
-400
-600

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VERTICAL SECTION PLOT

SCALE - 1 INCH = 400 FEET



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