

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		² OGRID Number 022351
⁴ Property Code 010926	⁵ Property Name WEST DOLLARHIDE DRINKARD UNIT	³ API Number 30 025 30829
		⁶ Well No. 107

⁷ Surface Location									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
I	32	24S	38E		1435	SOUTH	1211	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
1/J	32	24S	38E		1310' / 1620'	SOUTH / SOUTH	200' / 2200'	EAST / EAST	LEA
⁹ Proposed Pool 1 WEST DOLLARHIDE DRINKARD					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation
¹⁶ Multiple No	¹⁷ Proposed Depth TVD 6452	¹⁸ Formation DRINKARD	¹⁹ Contractor	²⁰ Spud Date 7/1/99

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

TEXACO INTENDS TO DRILL TWO 1000' HORIZONTALS LATERALS (EAST & WEST) IN THE DRINKARD FORMATION. THE INTENDED PROCEDURE IS ATTACHED.

Plug-Back

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>J. Denise Leake</i>		Approved By: <i>[Signature]</i>	
Printed Name J. Denise Leake		Title:	
Title Engineering Assistant		Approval Date: <i>[Date]</i>	Expiration Date:
Date 3/25/99	Telephone 397-0405	Conditions of Approval: Attached <input type="checkbox"/>	

OVERVIEW

The West Dollarhide Drinkard Unit # 107 well was drilled in mid 1991 as a conventional test of the Drinkard and Abo formations. The well potential for 177 BOPD, 181 BWPD and 180 MCFD from Drinkard-Abo perforations 6421'-6424', 6428'-6434', 6438'-6442', 6447'-6453', 6460'-6464', 6474'-6476', 6480'-6484', 6492'-6502', 6508'-6514', 6520'-6522', 6532', 6541'-6544', 6570'-6573', 6626'-6631', 6638'-6640', 6650'-6652', 6706', 6709'-6711, 6715', 6724'-6728', 6732'-6735', 6738'-6740', 6746'-6750', 6772'-6774', 6820'-6824', 6826'-6829' and 6832'-6834'. Successful horizontal laterals have been drilled in the WDDU # 93, #114, #123 and #126 wells. It is proposed to employ this technology on the subject well and drill two +/- 1000 foot horizontal laterals (east & west) in the Drinkard formation. The basic well plan is as follows:

- a) Lay down rods, pump and tubing. Move pumping unit out of the way. TIH with a casing scraper and run to PBTD (6500'). TOOH.
- b) Set a TIW full bore SS-WB-BB permanent packer at +/- 6394' (5-1/2", 17 #/ft, L-80 pipe). TIH with latch (1.0'), space out assembly (+/- 60' drill collars), debris sub (2.55') and the 3 degree multi-lateral selective/reentry whipstock (top of window +/- 6324', bottom of window +/- 6331').
- c) Drill a short radius curve using a 4-3/4" bit to a measured depth of +/- 6497' (TVD +/- 6452'). The final angle will be 77.7 degrees from vertical.
- d) Drill +/- 1000' horizontal section (east lateral 97 degrees).
- e) Retrieve the whipstock. TIH with latch (1.0'), space out assembly (+/- 100' drill collars), debris sub (2.55') and another 3 degree whipstock (top of window +/- 6284', bottom of window +/- 6291').
- f) Drill a short radius curve using a 4-3/4" bit to a measure depth of +/- 6469' (TVD +/- 6420'). The final angle will be 78.3 degrees from vertical.
- g) Drill a +/- 1000' horizontal section (west lateral 280.6 degrees).
- h) Acid frac both horizontal laterals in the well. Place well on submersible pump.

LOST IN HOLE INSURANCE FOR THE DOWNHOLE MOTOR AND MWD IS INCLUDED WITH THE DAILY RATE FROM DIAMONDBACK DRILLING.

PROPOSED WORK

PRODUCTION HOLE:

1. TOOH and lay down rods, pump and tubing. TIH with a casing scraper and run to PBTD (6880'). TOOH. TIH with a 5-1/2", 17#/ft, TIW full bore packer on wireline and set the top of the packer at +/- 6419'. Correlate the casing collars with the production logs so that the whipstock will be set 5-8' above a casing collar. TOOH.
2. TIH with the orientation lug and gyro survey tool and tag the packer. Strap the pipe going in the hole. This measurement will be used when setting the whipstock. Accuracy is very important. Check the strap with the wireline measurement. Seat into the riser slot for orientation. Re-set the gyro several times until a consistent azimuth is reached. TOOH.
3. Pick up the latch, +/- 60' of space out drill collars, debris sub and a 3 degree retrievable whipstock. Tighten to required torque. Make up the whipstock assembly over the hole and back off the spline sleeve (this tool has 72 splines with increments of 5 degrees) on the latch assembly. Stretch a string from the whipstock lug to the compass card at the latch. Orient the azimuth of the packer slot to the key on the latch assembly. Once the latch assembly has been aligned, orient the whipstock face to the desired (97 degrees) azimuth. Set the shear pins (5000 #'s per pin) for the required release on the latch.
4. Pick up the whipstock assembly using the lifting clevis. Snub into the rotary and set the space out assembly in the slips. Install the starting mill assembly on the whipstock. TIH slowly (no speed records). Record the weight of the assembly prior to stacking out on the packer. Lower the assembly until weight loss is observed. Do not exceed the shear pin requirements! Pick up and pull 5-8000 pounds to verify the latch is set (do not exceed the shear pin requirements). Shear off the starting mill.
5. Pick up the power swivel and begin circulating. Pick up the drill pipe until the starting mill has cleared the whipstock and start rotation. Lower the drill pipe slowly until the torque gauge suggest the starting mill is contacting the casing. Adjust weight and speed until satisfied with the penetration rate. Mill to a predetermined depth that will assure the setting lug is completely removed and a cut out in the casing has been initiated. TOOH.

6. TIH with the metal muncher window mill, string mill and the watermelon mill. Resume milling operations and mill until the complete assembly has cleared the casing. Pick up and lower the string several times without rotation to assure a good clean window has been obtained. Circulate the hole clean. TOOH.
7. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

HORIZONTAL PRODUCTION HOLE:

1. Rig up Diamondback Drilling Company. Adjust plan to target as necessary. Trip in the hole with Diamondback Drilling's curve building assembly. This will be a 4-3/4" insert bit, 3-3/4" PDM, float sub/orientation combo, 2-flexible monel collars, 2-7/8" 8.7 #/ft P-110 (PH-6) tubing in the horizontal hole and 2-7/8" AOH drill pipe in the vertical hole).
2. Build curve to estimated target depths and angles as follows:

True Vertical Depth	6452'
Measured Depth	6497'
Final Angle	77.7 degrees
Target Azimuth	97 degrees
Build Rate	48 degrees/100'

Drill the curve sliding as necessary to stay on target. It is recommended that after each slide, the bit be pulled back and washed through the slide. Once the curve is built, rotate through the curve section noting tight spots and fill. Make at least one short trip prior to tripping out of the hole.

3. Trip in the hole with Diamondback Drilling's lateral assembly. This will be a 4-3/4" PDC bit, 3-3/4" articulated motor, float sub/orientation combo, 2 - flexible monel collars, 2-7/8" 8.7 #/ft P-110 (PH-6) tubing in the horizontal hole and 2-7/8" AOH drill pipe in the vertical hole.
4. Drill +/- 1000' of horizontal hole per the attached Diamondback well plan.

5. Continue drilling the horizontal section per the Texaco Geologist recommendations.
6. Trip out of the hole with the drilling assembly.
7. TIH and retrieve the whipstock. TOOH. TIH with the latch, +/- 100' space out assembly (drill collars), debris sub and another retrievable 3 degree whipstock (top of window at +/- 6284', bottom of window at +/- 6291'). Repeat steps 2-7 (production hole) and steps 1-5 (horizontal hole). Build the curve to estimated target depths and angles as follows:

True Vertical Depth	6420'
Measured Depth	6469'
Final Angle	78.3 degrees
Target Azimuth	280.6 degrees
Build Rate	45 degrees/100'

8. Trip in the hole with the lateral drilling assembly. Drill the lateral per Diamondback's well plan. TOOH with the drilling assembly. Pull the whipstock. Set a wireline set, tubing retrievable bridge plug for 5-1/2", 17 #/ft casing at +/- 6000' Test plug to 1000 psi.
9. Lay down the drill pipe.
10. Nipple down the BOP stack. Install a manual 3000 psig BOP equipped with blind rams and 2-7/8" pipe rams. Release the rig. Rig down and move out rotary tools.

COMPLETION PROCEDURE:

1. Back drag the location and set pulling unit anchors.
2. Move in and rig up a pulling unit.
3. Trip in the hole with a retrieving head on 2-7/8" tubing. Retrieve the plug. Trip out of the hole and lay down the plug. TIH with tubing and ported subs to within 200 foot of the end of the lateral. Use a bent joint to orient into the laterals.
4. Rig up Dowell. Acid frac each Drinkard horizontal lateral with 60,000 gallons of 15% HCL and gelled water spacers. The acid frac will be done down tubing using ported subs.
5. Flow back immediately. Flow/swab test.
6. Place on pump.



Job Number: State/Country: NEW MEXICO
 Company: TEXACO E&P Declination:
 Lease/Well: WDDU #107 Grid:
 Location: LEA COUNTY File name: D:\DATA\TEXACO~1\WESTDO~2\WDDU107\WDDU107.SVY
 Rig Name: YALE E. KEY ??? Date/Time: 17-Nov-98 / 13:52
 RKB: 3186 Curve Name: EASTERN (LOWER) LATERAL (REV.1) 11/17/98
 G.L. or M.S.L.:

DIAMONDBACK DIRECTIONAL
A B.W.W.C. COMPANY

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 97.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

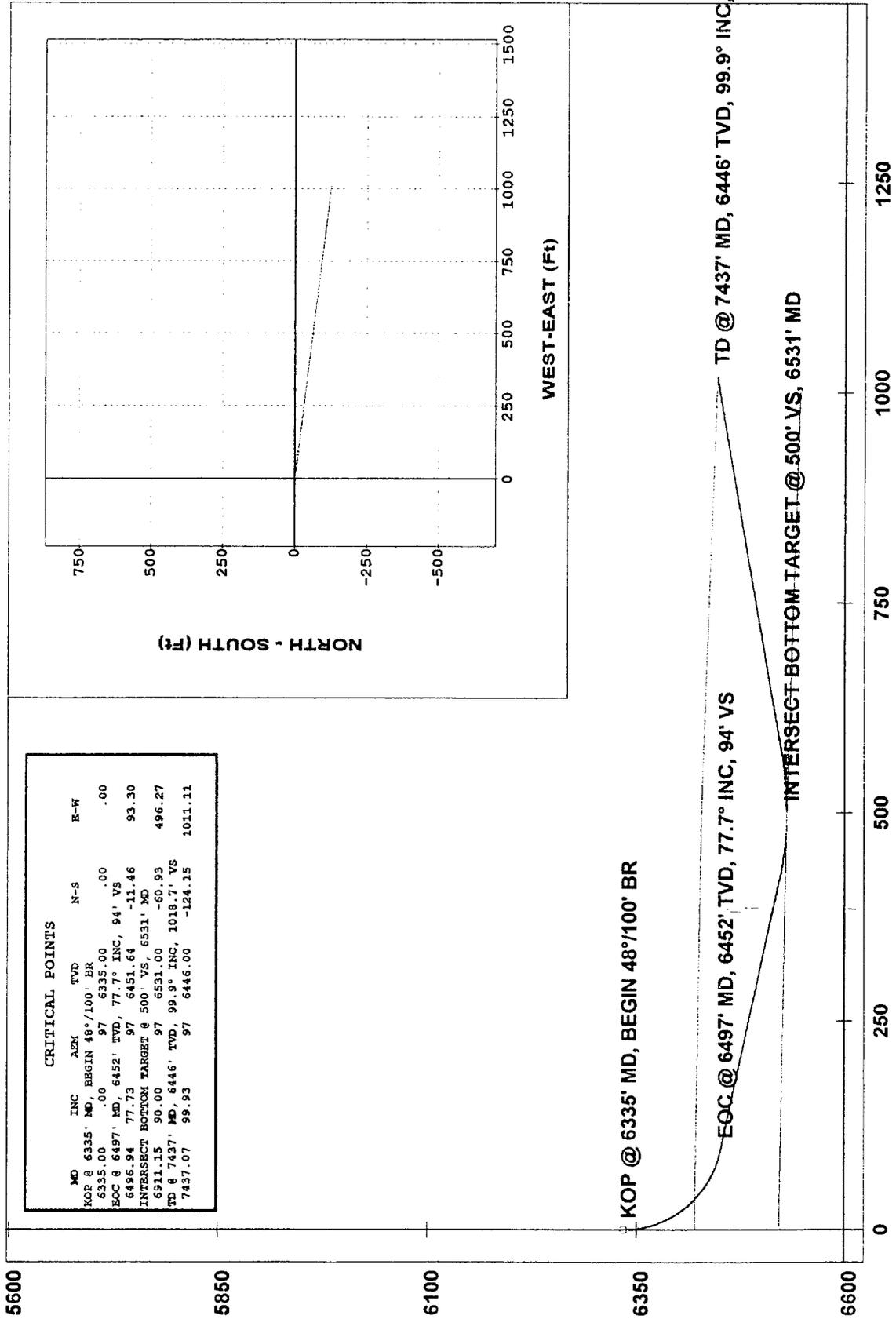
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6335.00	.00	97.00	6335.00	-3149.00	.00	.00	.00	.00	.00
6345.00	4.80	97.00	6344.99	-3158.99	-.05	.42	.42	97.00	48.00
6355.00	9.60	97.00	6354.91	-3168.91	-.20	1.66	1.67	97.00	48.00
6365.00	14.40	97.00	6364.69	-3178.69	-.46	3.72	3.75	97.00	48.00
6375.00	19.20	97.00	6374.26	-3188.26	-.81	6.59	6.64	97.00	48.00
6385.00	24.00	97.00	6383.55	-3197.55	-1.26	10.24	10.32	97.00	48.00
6395.00	28.80	97.00	6392.51	-3206.51	-1.80	14.65	14.76	97.00	48.00
6405.00	33.60	97.00	6401.06	-3215.06	-2.43	19.79	19.94	97.00	48.00
6415.00	38.40	97.00	6409.14	-3223.14	-3.15	25.63	25.82	97.00	48.00

KOP @ 6335' MD, BEGIN 48°/100' BR

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
TD @ 7437' MD, 6446' TVD, 99.9° INC, 1018.7' VS										
7437.07	99.93	97.00	6446.00	-3260.00	-124.15	1011.11	1018.70	1018.70	97.00	.00

Company: TEXACO E&P
 Lease/Well: WDDU #107
 Location: LEA COUNTY
 Rig Name: YALE E. KEY ???
 State/Country: NEW MEXICO
 Declination:

File name: D:\DATA\TEXACO~1\ANNIEM~1\9H\MILLER9H.SVY
 Date/Time: Tuesday, November 17, 1998



-- EASTERN (LOWER) LATERAL (REV.1) 11/17/98

VERTICAL SECTION (EAST) @ 07 0000



Job Number: State/Country: NEW MEXICO
 Company: TEXACO E&P Declination:
 Lease/Well: WDDU #107 Grid:
 Location: LEA COUNTY File name: D:\DATA\TEXACO~1\WESTDO~2\WDDU107\WDDU107.SVY
 Rig Name: YALE E. KEY ??? Date/Time: 17-Nov-98 / 13:56
 RKB: 3186 Curve Name: WESTERN (UPPER) LATERAL (REV.1) 11/17/98
 G.L. or M.S.L.:

DIAMONDBACK DIRECTIONAL
A B.W.W.C. COMPANY

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 97.00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

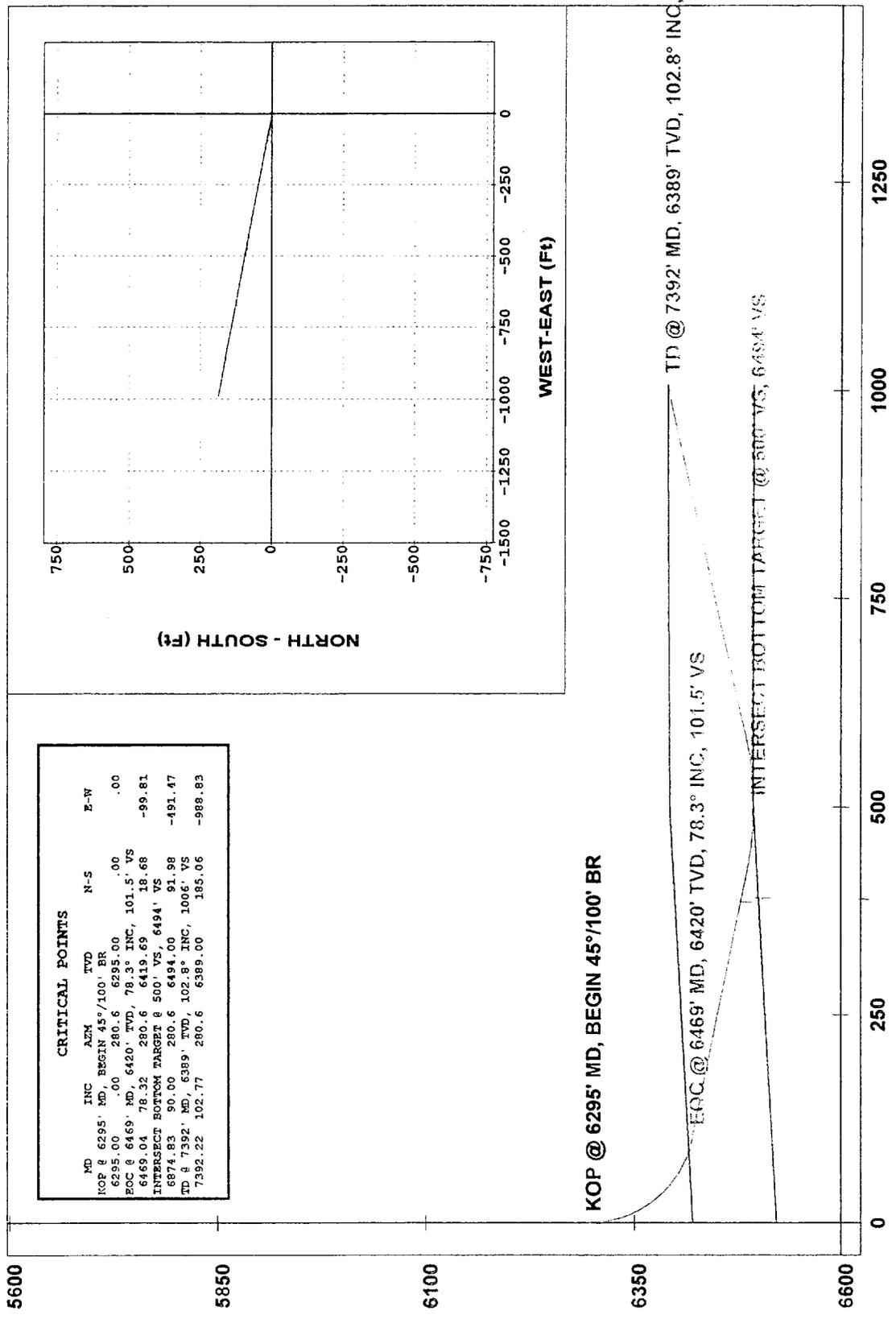
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
6295.00	.00	280.60	6295.00	-3109.00	.00	.00	.00	.00	.00	.00
6305.00	4.50	280.60	6304.99	-3118.99	.07	-.39	-.39	.39	280.60	45.00
6315.00	9.00	280.60	6314.92	-3128.92	.29	-1.54	-1.56	1.57	280.60	45.00
6325.00	13.50	280.60	6324.72	-3138.72	.65	-3.46	-3.51	3.52	280.60	45.00
6335.00	18.00	280.60	6334.35	-3148.35	1.15	-6.13	-6.22	6.23	280.60	45.00
6345.00	22.50	280.60	6343.72	-3157.72	1.78	-9.53	-9.67	9.69	280.60	45.00
6355.00	27.00	280.60	6352.80	-3166.80	2.55	-13.64	-13.85	13.88	280.60	45.00
6365.00	31.50	280.60	6361.53	-3175.53	3.45	-18.44	-18.73	18.76	280.60	45.00
6375.00	36.00	280.60	6369.84	-3183.84	4.47	-23.90	-24.27	24.32	280.60	45.00

KOP @ 6295' MD, BEGIN 45°/100' BR

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
TD @ 7392' MD, 6389' TVD, 102.8° INC, 1006' VS										
7392.22	102.77	280.60	6389.00	-3203.00	185.06	-988.83	-1004.01	1006.00	280.60	.00

File name: D:\DATA\TEXACO~1\WESTDO~2\WDDU107\WDDU107
 Date/Time: 17-Nov-98 / 13:56

Company: TEXACO E&P
 Lease/Well: WDDU #107
 Location: LEA COUNTY
 Rig Name: YALE E. KEY ???
 State/Country: NEW MEXICO
 Declination:



TRUE VERTICAL DEPTH (Ft)

WESTERN (UPPER) LATERAL (REV.1) 11/17/98

VERTICAL SECTION (Ft) @ 280.60°