STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

April 16, 1997

Texaco Exploration and Production, Inc.
P. O. Box 3109
Midland, Texas 79702
Attention: C. Wade Howard

Administrative Order DD-168(H)
High Angle/Horizontal

Dear Mr. Howard:

Reference is made to your application dated February 27, 1997 for authorization to initiate a high angle/horizontal directionally drilling project in the North Vacuum-Abo Pool within Texaco's North Vacuum Abo West Unit/North Vacuum Abo West Unit Waterflood Project Area in portions of Sections 15, 21, 22, 27, 28, 33, and 34, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

The Division Director Finds That:

(1) The application of Texaco Exploration and Production, Inc. ("Texaco") as operator of the following described North Vacuum Abo West Unit ("project area") in Lea County, New Mexico (approved by Division Order No. R-6822, dated November 18, 1981) has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 15:	W/2
Section 21:	S/2 NE/4, S/2 SW/4, and SE/4
Section 22:	W/2
Section 27:	W/2
Section 28:	N/2 and SE/4
Section 33:	N/2 SE/4
Section 34:	N/2 NW/4, SW/4 NW/4, and NW/4 SW/4;

(2) The proposed high angle/horizontal directionally drilling project is within the applicant's North Vacuum Abo West Unit Waterflood Project Area (established by Division Order No. R-6857, as amended) and as such Division General Rule 701.G(4) applies, which states that wells within waterflood project areas are not subject to an oil allowable;

(3) The North Vacuum-Abo Pool is subject to the "*Special Rules and Regulations for the North Vacuum-Abo (Oil) Pool*", as promulgated by Division Order No. R-2421, as amended, which provides for 80-acre oil spacing and proration units, or drilling units, and requires that wells be located within a 200 foot radius of the center of a governmental quarter-quarter section or lot, provided that the first well on the 80-acre unit is located in either the NW/4 or SE/4 of a governmental quarter section;

(4) Texaco is seeking to initiate a high angle/horizontal directional drilling project within this portion of the North Vacuum-Abo Pool, which is a heterogeneous reservoir where vertical segregation is common, in an attempt to drain laterally discontinuous lenses that would not otherwise be exploited without dense vertical well spacing [see files for Division Administrative Orders DD-153(H) and DD-154(H];

(5) It is Texaco's intent at this time to drill its North Vacuum Abo West Unit Well No. 29 at a surface location 2080 feet from the North line and 660 feet from the West line (Unit E) of Section 22, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico and to drill multiple laterals off of the vertical wellbore within the unitized Abo formation in such a manner that causes the drainholes to traverse section, quarter section, and quarter-quarter section lines within the project area;

(6) The applicable drilling window or "producing area" for said wellbore should include that area within the above-described Unit provided that the horizonal or producing portion of any drainhole shall be located no closer than 560 feet from the outer boundary of the above-described "project area"

(7) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration and Production, Inc. ("Texaco") is hereby authorized to initiate a high angle/horizontal directional drilling project in the North Vacuum-Abo Pool within its North Vacuum Abo West Unit/North Vacuum Abo West Unit Waterflood Project Area comprising the following described "project area" in Lea County, New Mexico;

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 15:	W/2
Section 21:	S/2 NE/4, S/2 SW/4, and SE/4
Section 22:	W/2
Section 27:	W/2
Section 28:	N/2 and SE/4
Section 33:	N/2 SE/4
Section 34:	N/2 NW/4, SW/4 NW/4, and NW/4 SW/4;

(2) Texaco is further authorized to proceed with their initial plans to drill the North Vacuum Abo West Unit Well No. 29 at a surface location 2080 feet from the North line and 660 feet from the West line (Unit E) of Section 22, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico and to drill multiple laterals off of the vertical wellbore within the unitized Abo formation;

PROVIDED HOWEVER THAT any drainhole drilled from said well may traverse section, quarter section, and quarter-quarter section lines within the project area provided that the horizonal or producing portion of any drainhole shall be located no closer than 560 feet from the outer boundary of the above-described "project area".

PROVIDED FURTHER THAT the applicant shall determine the actual location of the kick-off points in said well prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of any horizontal wellbore during or after completion of drilling operations.

(3) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(4) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F.

(5) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

(6) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe

DD-TEX. HS

Rec: 3-6-97
Susp: 3-26-97
Released: 4-16-97

April 15, 1997

Texaco Exploration and Production, Inc.
P. O. Box 3109
Midland, Texas 79702

Attention: C. Wade Howard

168
*Administrative Order DD-~~**~~(H)*
High Angle/Horizontal

Dear Mr. Howard:

Reference is made to your application dated February 27, 1997 for authorization to initiate a high angle/horizontal directionally drilling project in the North Vacuum-Abo Pool within Texaco's North Vacuum Abo West Unit/North Vacuum Abo West Unit Waterflood Project Area in portions of Sections 15, 21, 22, 27, 28, 33, and 34, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico.

The Division Director Finds That:

(1) The application of Texaco Exploration and Production, Inc. ("Texaco") as operator of the following described North Vacuum Abo West Unit ("project area") in Lea County, New Mexico (approved by Division Order No. R-6822, dated November 18, 1981) has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 15:	W/2
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Section 27:	W/2
Section 28:	N/2 and SE/4
Section 33:	N/2 SE/4
Section 34:	N/2 NW/4, SW/4 NW/4, and NW/4 SW/4;

(2) The proposed high angle/horizontal directionally drilling project is within the applicant's North Vacuum Abo West Unit Waterflood Project Area (established

4-16

by Division Order No. R-6857, as amended) and as such Division General Rule 701.G(4) applies, which states that wells within waterflood project areas are not subject to an oil allowable;

(3) The North Vacuum-Abo Pool is subject to the "*Special Rules and Regulations for the North Vacuum-Abo (Oil) Pool*", as promulgated by Division Order No. R-2421, as amended, which provides for 80-acre oil spacing and proration units, or drilling units, and requires that wells be located within a 200 foot radius of the center of a governmental quarter-quarter section or lot, provided that the first well on the 80-acre unit is located in either the NW/4 or SE/4 of a governmental quarter section;

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(5) It is Texaco's intent at this time to drill its North Vacuum Abo West Unit Well No. 29 at a surface location 2080 feet from the North line and 660 feet from the West line (Unit E) of Section 22, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico and to drill multiple laterals off of the vertical wellbore within the unitized Abo formation in such a manner that causes the drainholes to traverse section, quarter section, and quarter-quarter section lines within the project area;

(6) The applicable drilling window or "producing area" for said wellbore should include that area within the above-described Unit provided that the horizonal or producing portion of any drainhole shall be located no closer than 560 feet from the outer boundary of the above-described "project area"

(7) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration and Production, Inc. ("Texaco") is hereby authorized to initiate a high angle/horizontal directional drilling project in the North Vacuum-Abo Pool within its North Vacuum Abo West Unit/North Vacuum Abo West Unit Waterflood Project Area comprising the following described "project area" in Lea County, New Mexico;

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 15:	W/2
Section 21:	S/2 NE/4, S/2 SW/4, and SE/4
Section 22:	W/2
Section 27:	W/2
Section 28:	N/2 and SE/4
Section 33:	N/2 SE/4
Section 34:	N/2 NW/4, SW/4 NW/4, and NW/4 SW/4;

(2) Texaco is further authorized to proceed with their initial plans to drill the North Vacuum Abo West Unit Well No. 29 at a surface location 2080 feet from the North line and 660 feet from the West line (Unit E) of Section 22, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico and to drill multiple laterals off of the vertical wellbore within the unitized Abo formation;

PROVIDED HOWEVER THAT any drainhole drilled from said well may traverse section, quarter section, and quarter-quarter section lines within the project area provided that the horizonal or producing portion of any drainhole shall be located no closer than 560 feet from the outer boundary of the above-described "project area".

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(3) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe

3/6/97	3/26/97	MS	KV	DD

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

RECEIVED
MAR - 6 1997
OIL CONSERVATION DIVISION

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
❑ NSL ☒ NSP ☒ DD ❑ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
❑ DHC ❑ CTB ❑ PLC ❑ PC ❑ OLS ❑ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
❑ WFX ❑ PMX ❑ SWD ❑ IPI ❑ EOR ❑ PPR

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ❑ Does Not Apply

[A] ❑ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ❑ Application is One Which Requires Published Legal Notice

[D] ❑ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ❑ Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

C. WADE HOWARD	C. Wade Howard	ENGINEER ASSISTANT	3/4/97
Print or Type Name	Signature	Title	Date

Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

February 27, 1997

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Proration Unit
North Vacuum Abo West Unit Well No. 29
Vacuum Abo, North Field
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Michael E. Stogner

Gentlemen:

Administrative approval, Rule 104.D, and Rule 111.D, is requested to directionally drill a dual lateral horizontal well in a non-standard proration unit in the Abo formation.

The North Vacuum Abo West Unit is a candidate for horizontal wells due to the heterogeneous nature of the reservoir. This Unit was designated a "Project Area" for horizontal drilling in 1996 (see Administrative Orders DD-153H and DD-154H). We have completed one successful horizontal well in this Unit (Well No. 26) and are currently drilling a second horizontal well (No. 27).

Attached for your information is a copy of our directional plans, a type log section, and Form C-102.

The "affected" offset operator to this well has been notified of this request. (See attached offset operator's list and certified mail receipts.)

Any questions concerning this request should be directed to me at (915) 688-4606.

Yours very truly,

C. Wade Howard

C. W. Howard
Engineer's Assistant

CWH:
CC: NMOCD, P. O. Box 1980, Hobbs, NM 88240
Attachments

DISTRICT I
P. O. Box 1980, Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	61760	Vacuum Abo, North

[4] Property Code	[5] Property Name	[6] Well Number
11123	North Vacuum Abo West Unit	29

[7] OGRID No.	[8] Operator Name	[9] Elevation
22351	TEXACO EXPLORATION & PRODUCTION, INC.	4057'

[10] Surface Location

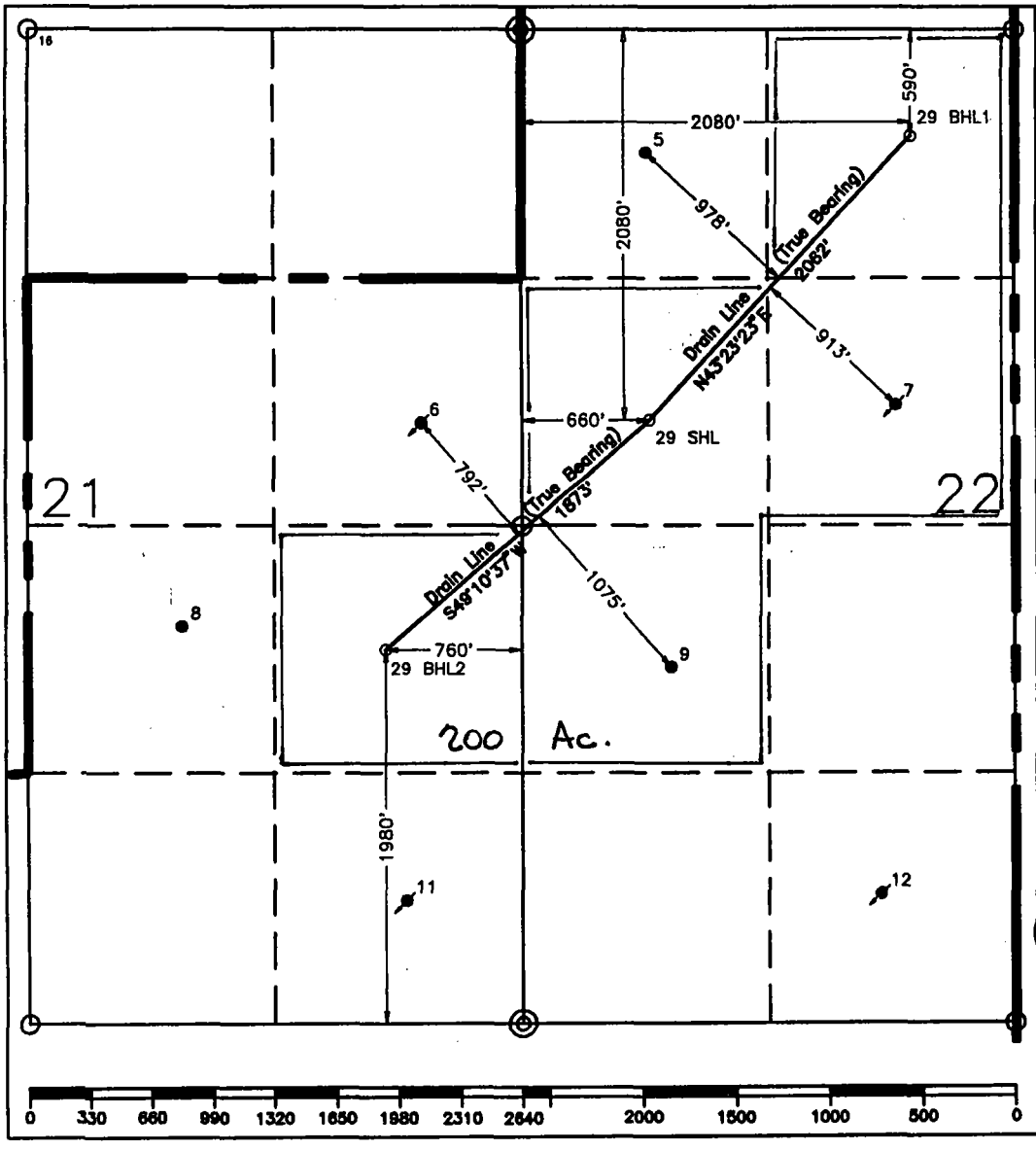
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	[7] County
E	22	17-S	34-E		2080'	North	660'	West	Lea

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	[7] County
L1 C/L2 I	22/21	17-S	34-E		590'/1980'	North/South	2080'/760'	West/East	Lea

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
200			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: C. Wade Howard

Printed Name: C. Wade Howard

Position: Engineer's Assistant

Company: Texaco Expl. & Prod. Inc.

Date: February 26, 1997

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: February 21, 1997

Signature & Seal of Professional Surveyor

Certificate No. 7254 John S. Piper

Sheet

○ = Staked Location ● = Producing Well = Injection Well ◇ = Water Supply Well ✦ = Plugged & Abandon Well

Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

February 27, 1997

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Location
North Vacuum Abo West Unit Well No. 29
Sec. 22, T-17-S, R-34-E
Lea County, New Mexico

TO THE OFFSET OPERATORS:

Gentlemen:

As an offset operator to the captioned unit, you are being furnished with a copy of our Application to directionally drill a horizontal well. If you have no objection, please sign the waiver at the bottom of this letter and return in the enclosed envelope.

Any questions concerning this request should be directed to me at (915) 688-4606.

Yours very truly,

C. Wade Howard

C. W. Howard
Engineer's Assistant

CWH:cwh

File

WAIVER APPROVED:

COMPANY: _____

BY: _____

DATE: _____

OFFSET OPERATOR'S LIST
North Vacuum Abo West Unit Well No. 29
LEA COUNTY, NEW MEXICO

Mobil Exploration and Producing US Inc.
P. O. Box 633
Midland, Texas 79702

Mack Energy Corporation
P. O. Box 1767
Artesia, NM 88211

Chevron USA Inc.
P. O. Box 1150
Midland, Texas 79702

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mobil Exploration and Producing Inc.
P. O. Box 633
Midland, TX 79702

4a. Article Number
P 329 313 829

4b. Service Type
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail XX Return Receipt for Merchandise

7. Date of Delivery MAR 0 3 1997

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent) Jesse L Reyes

PS Form 3811, December 1991 *U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mack Energy Corporation
P. O. Box 1767
Artesia, NM 88211

4a. Article Number
P 329 313 830

4b. Service Type
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail XX Return Receipt for Merchandise

7. Date of Delivery 2-28-97

5. Signature (Addressee) Sylvia Hendley

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent) Sylvia Hendley

PS Form 3811, December 1991 *U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Chevron USA Inc.
P. O. Box 1150
Midland, TX 79702

4a. Article Number
P 329 313 831

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
FEB 28 1997

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

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Is your RETURN ADDRESS completed on the reverse side?

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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

4a. Article Number
P 329 313 832

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
2-28-97

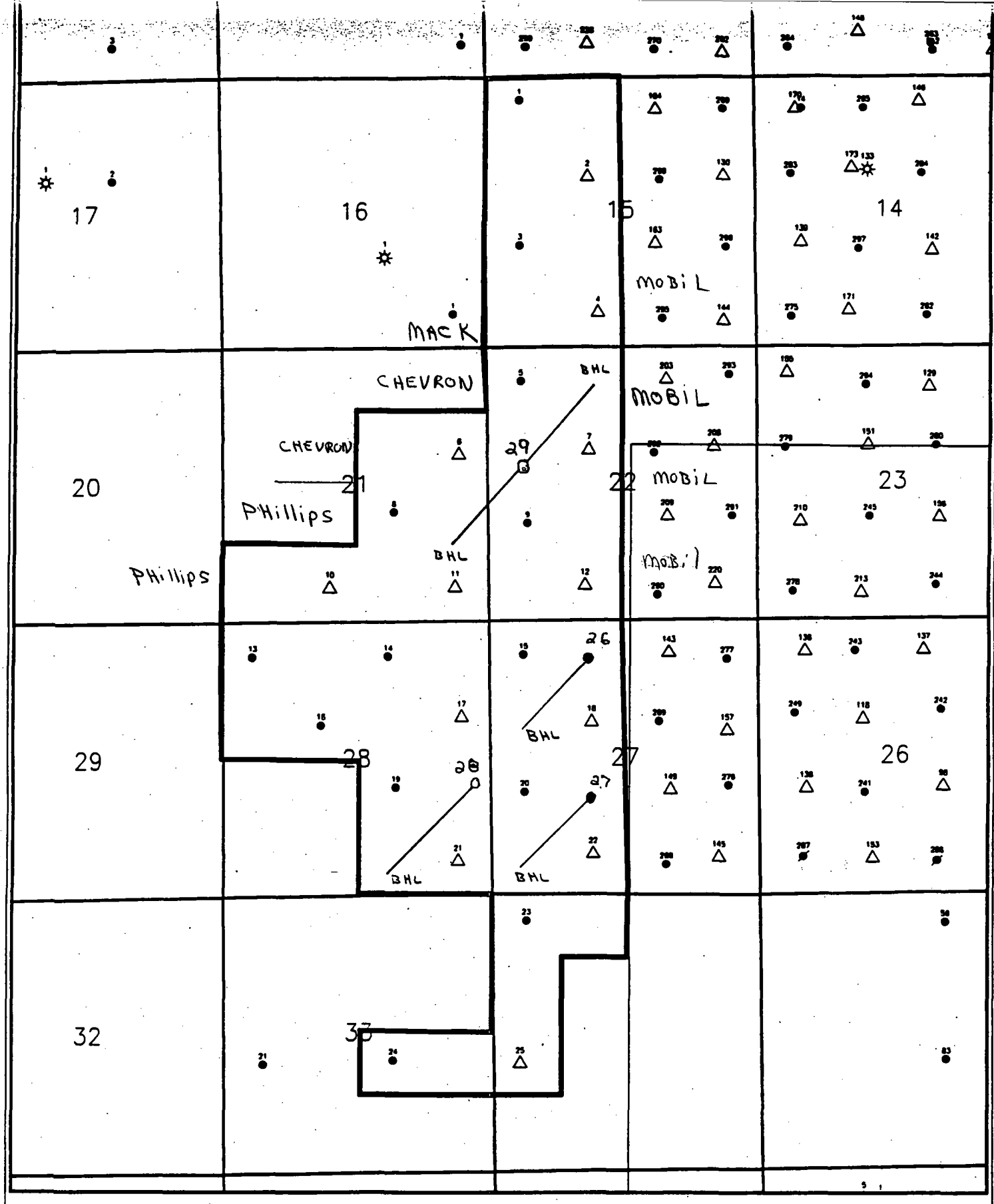
5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

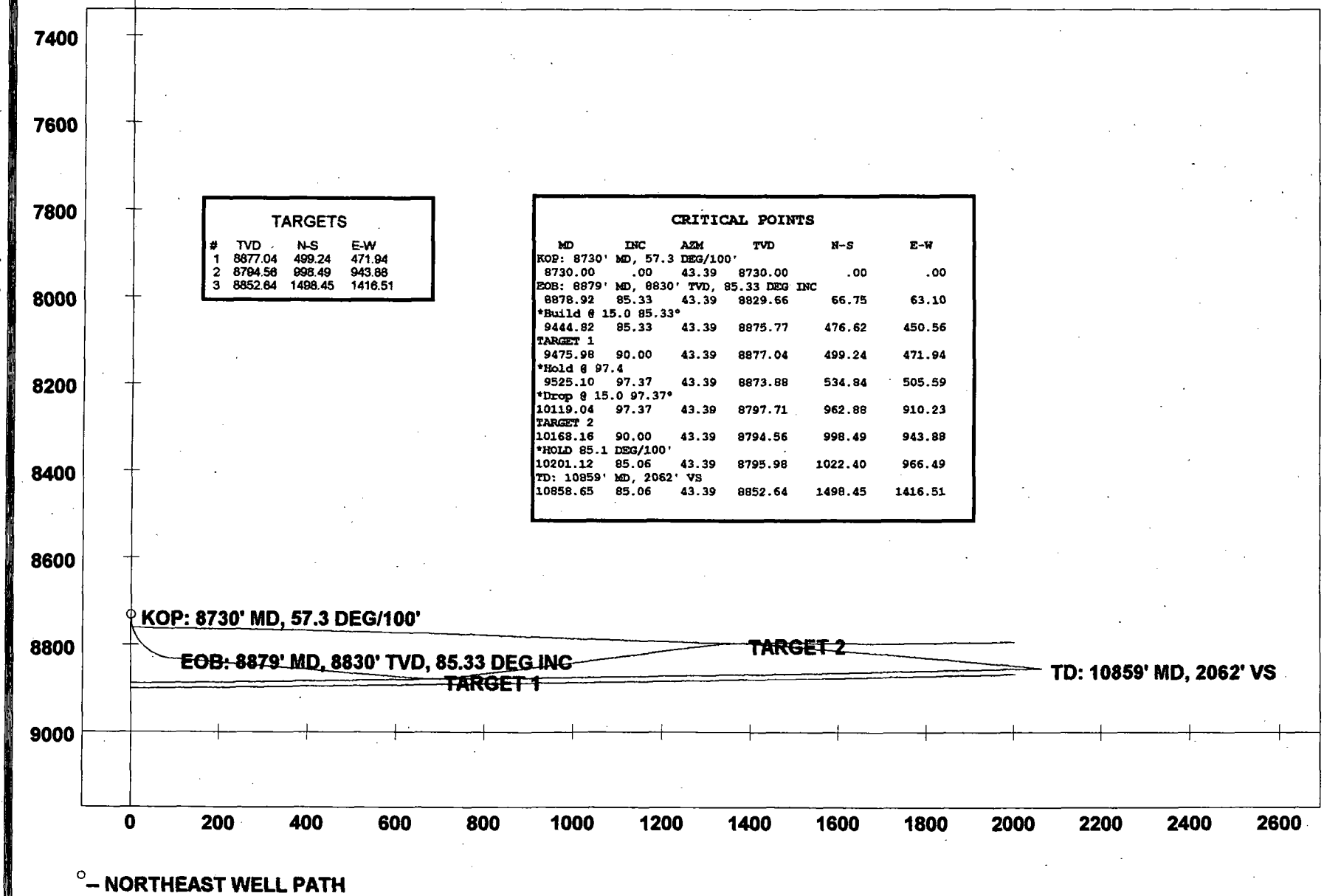
Thank you for using Return Receipt Service.



Texaco Exploration & Production, In

WELL No. 29
North Vacuum Abo West Unit
Base Map, Wells > 8,000' TD

Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Declination: 9.11 DEG EAST
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: Friday, February 28, 1997



TARGETS

#	TVD	N-S	E-W
1	8877.04	499.24	471.94
2	8794.56	998.49	943.88
3	8852.64	1498.45	1416.51

CRITICAL POINTS

MD	INC	AZM	TVD	N-S	E-W
KOP: 8730' MD, 57.3 DEG/100'					
8730.00	.00	43.39	8730.00	.00	.00
EOB: 8879' MD, 8830' TVD, 85.33 DEG INC					
8878.92	85.33	43.39	8829.66	66.75	63.10
*Build @ 15.0 85.33°					
9444.82	85.33	43.39	8875.77	476.62	450.56
TARGET 1					
9475.98	90.00	43.39	8877.04	499.24	471.94
*Hold @ 97.4					
9525.10	97.37	43.39	8873.88	534.84	505.59
*Drop @ 15.0 97.37°					
10119.04	97.37	43.39	8797.71	962.88	910.23
TARGET 2					
10168.16	90.00	43.39	8794.56	998.49	943.88
*HOLD 85.1 DEG/100'					
10201.12	85.06	43.39	8795.98	1022.40	966.49
TD: 10859' MD, 2062' VS					
10858.65	85.06	43.39	8852.64	1498.45	1416.51

Job Number: P97-102
Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Rig Name:

State/Country:
Declination: 9.11 DEG EAST
Grid:
File name: C:\WINSERVE\NVAW29NE.SVY
Date/Time: 28-Feb-97 / 06:06
Curve Name: PROPOSED WELL PATH

Phoenix Drilling Services, Inc.

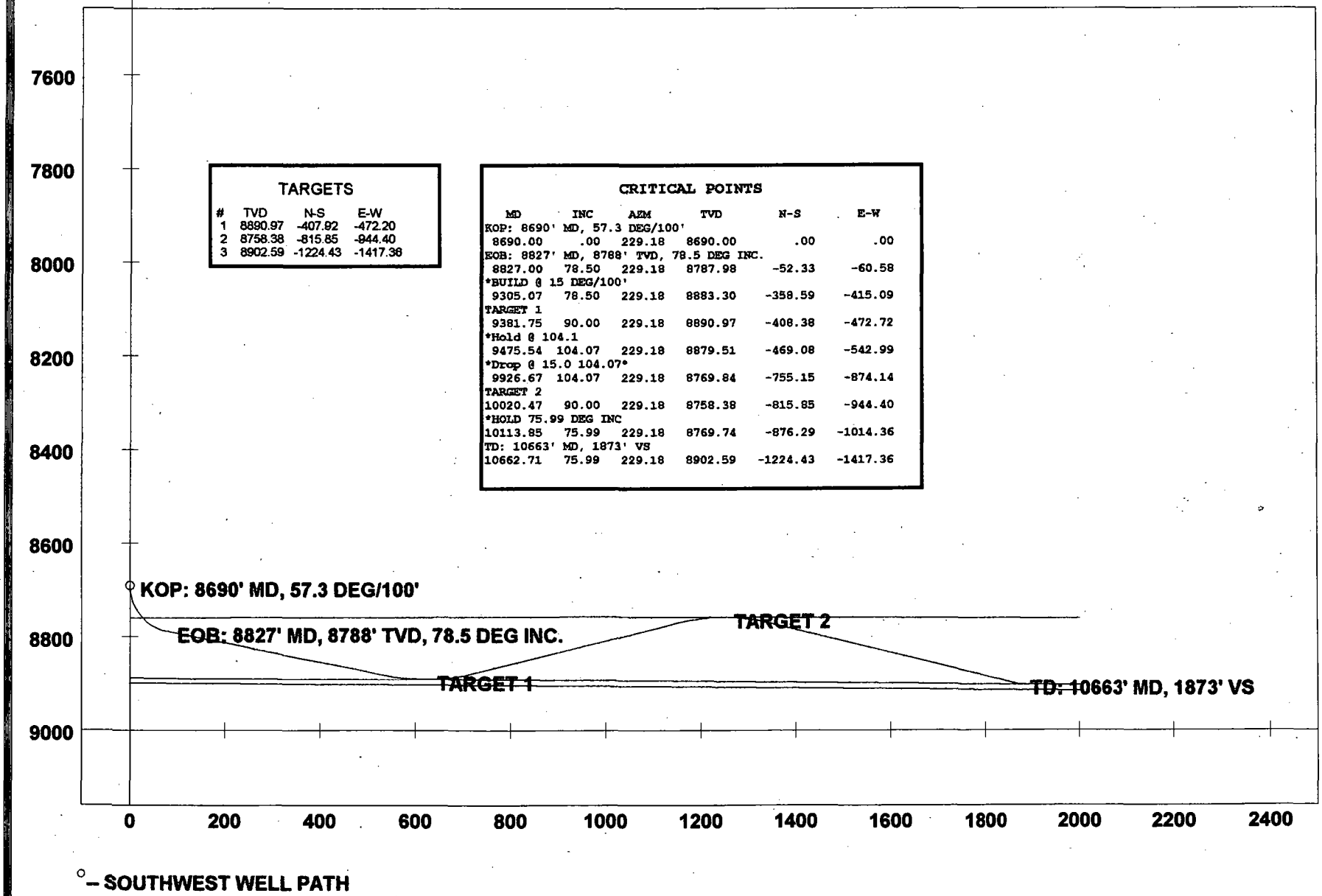
WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 43.39

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
KOP: 8730' MD, 57.3 DEG/100'										
8730.00	.00	43.39	8730.00	4656.00	.00	.00	.00	.00	.00	.00
8740.00	5.73	43.39	8739.98	4665.98	.36	.34	.50	.50	43.39	57.30
8750.00	11.46	43.39	8749.87	4675.87	1.45	1.37	1.99	1.99	43.39	57.30
8760.00	17.19	43.39	8759.55	4685.55	3.25	3.07	4.47	4.47	43.39	57.30
8770.00	22.92	43.39	8768.94	4694.94	5.74	5.42	7.89	7.89	43.39	57.30
8780.00	28.65	43.39	8777.94	4703.94	8.90	8.41	12.24	12.24	43.39	57.30
8790.00	34.38	43.39	8786.46	4712.46	12.69	12.00	17.47	17.47	43.39	57.30
8800.00	40.11	43.39	8794.42	4720.42	17.09	16.16	23.52	23.52	43.39	57.30
8810.00	45.84	43.39	8801.73	4727.73	22.04	20.84	30.33	30.33	43.39	57.30
8820.00	51.57	43.39	8808.33	4734.33	27.50	26.00	37.84	37.84	43.39	57.30
8830.00	57.30	43.39	8814.14	4740.14	33.41	31.58	45.97	45.97	43.39	57.30
8840.00	63.03	43.39	8819.12	4745.12	39.71	37.54	54.64	54.64	43.39	57.30
8850.00	68.76	43.39	8823.20	4749.20	46.34	43.81	63.77	63.77	43.39	57.30

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
8860.00	74.49	43.39	8826.35	4752.35	53.23	50.32	73.25	73.25	43.39	57.30
8870.00	80.22	43.39	8828.54	4754.54	60.32	57.02	83.01	83.01	43.39	57.30
EOB: 8879' MD, 8830' TVD, 85.33 DEG INC										
8878.92	85.33	43.39	8829.66	4755.66	66.75	63.10	91.85	91.85	43.39	57.29
8979.11	85.33	43.39	8837.82	4763.82	139.32	131.70	191.71	191.71	43.39	.00
9079.11	85.33	43.39	8845.97	4771.97	211.74	200.16	291.38	291.38	43.39	.00
9179.11	85.33	43.39	8854.12	4780.12	284.17	268.63	391.05	391.05	43.39	.00
9279.11	85.33	43.39	8862.27	4788.27	356.60	337.10	490.71	490.71	43.39	.00
9379.11	85.33	43.39	8870.41	4796.41	429.03	405.57	590.38	590.38	43.39	.00
Build @ 15.0 85.33°										
9444.82	85.33	43.39	8875.77	4801.77	476.62	450.56	655.87	655.87	43.39	.00
9445.98	85.50	43.39	8875.86	4801.86	477.46	451.35	657.03	657.03	43.39	15.00
9455.98	87.00	43.39	8876.51	4802.51	484.71	458.21	667.01	667.01	43.39	15.00
9465.98	88.50	43.39	8876.91	4802.91	491.97	465.07	677.00	677.00	43.39	15.00
TARGET 1										
9475.98	90.00	43.39	8877.04	4803.04	499.24	471.94	687.00	687.00	43.39	15.00
9485.98	91.50	43.39	8876.91	4802.91	506.51	478.81	697.00	697.00	43.39	15.00
9495.98	93.00	43.39	8876.51	4802.51	513.77	485.67	706.99	706.99	43.39	15.00
9505.98	94.50	43.39	8875.86	4801.86	521.02	492.53	716.97	716.97	43.39	15.00
9515.98	96.00	43.39	8874.95	4800.95	528.25	499.37	726.93	726.93	43.39	15.00
Hold @ 97.4										
9525.10	97.37	43.39	8873.88	4799.88	534.84	505.59	735.99	735.99	43.39	15.00
9625.10	97.37	43.39	8861.06	4787.06	606.91	573.72	835.16	835.16	43.39	.00
9725.10	97.37	43.39	8848.23	4774.23	678.98	641.85	934.34	934.34	43.39	.00
9825.10	97.37	43.39	8835.41	4761.41	751.05	709.98	1033.51	1033.51	43.39	.00
9925.10	97.37	43.39	8822.58	4748.58	823.12	778.11	1132.68	1132.68	43.39	.00
10025.10	97.37	43.39	8809.76	4735.76	895.19	846.23	1231.86	1231.86	43.39	.00
Drop @ 15.0 97.37°										
10119.04	97.37	43.39	8797.71	4723.71	962.88	910.23	1325.01	1325.01	43.39	.00
10119.11	97.36	43.39	8797.70	4723.70	962.93	910.27	1325.08	1325.08	43.39	15.00
10128.16	96.00	43.39	8796.65	4722.65	969.47	916.45	1334.08	1334.08	43.39	15.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
10138.16	94.50	43.39	8795.73	4721.73	976.71	923.29	1344.03	1344.03	43.39	15.00
10148.16	93.00	43.39	8795.08	4721.08	983.96	930.15	1354.01	1354.01	43.39	15.00
10158.16	91.50	43.39	8794.69	4720.69	991.22	937.01	1364.00	1364.00	43.39	15.00
TARGET 2										
10168.16	90.00	43.39	8794.56	4720.56	998.49	943.88	1374.00	1374.00	43.39	15.00
10178.16	88.50	43.39	8794.69	4720.69	1005.75	950.75	1384.00	1384.00	43.39	15.00
10188.16	87.00	43.39	8795.08	4721.08	1013.01	957.61	1393.99	1393.99	43.39	15.00
10198.16	85.50	43.39	8795.73	4721.73	1020.26	964.47	1403.97	1403.97	43.39	15.00
HOLD 85.1 DEG/100'										
10201.12	85.06	43.39	8795.98	4721.98	1022.40	966.49	1406.92	1406.92	43.39	15.00
10301.12	85.06	43.39	8804.59	4730.59	1094.80	1034.93	1506.55	1506.55	43.39	.00
10401.12	85.06	43.39	8813.21	4739.21	1167.20	1103.37	1606.17	1606.17	43.39	.00
10501.12	85.06	43.39	8821.83	4747.83	1239.60	1171.81	1705.80	1705.80	43.39	.00
10601.12	85.06	43.39	8830.44	4756.44	1312.00	1240.25	1805.43	1805.43	43.39	.00
10701.12	85.06	43.39	8839.06	4765.06	1384.40	1308.69	1905.06	1905.06	43.39	.00
10801.12	85.06	43.39	8847.68	4773.68	1456.80	1377.13	2004.69	2004.69	43.39	.00
TD: 10859' MD, 2062' VS										
10858.65	85.06	43.39	8852.64	4778.64	1498.45	1416.51	2062.00	2062.00	43.39	.00

Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Declination: 9.11 DEG EAST
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: Friday, February 28, 1997



TARGETS

#	TVD	N-S	E-W
1	8890.97	-407.92	-472.20
2	8758.38	-815.85	-944.40
3	8902.59	-1224.43	-1417.36

CRITICAL POINTS

MD	INC	AZM	TVD	N-S	E-W
KOP: 8690' MD, 57.3 DEG/100'					
8690.00	.00	229.18	8690.00	.00	.00
EOB: 8827' MD, 8788' TVD, 78.5 DEG INC.					
8827.00	78.50	229.18	8787.98	-52.33	-60.58
*BUILD @ 15 DEG/100'					
9305.07	78.50	229.18	8883.30	-358.59	-415.09
TARGET 1					
9381.75	90.00	229.18	8890.97	-408.38	-472.72
*Hold @ 104.1					
9475.54	104.07	229.18	8879.51	-469.08	-542.99
Drop @ 15.0 104.07					
9926.67	104.07	229.18	8769.84	-755.15	-874.14
TARGET 2					
10020.47	90.00	229.18	8758.38	-815.85	-944.40
*HOLD 75.99 DEG INC					
10113.85	75.99	229.18	8769.74	-876.29	-1014.36
TD: 10663' MD, 1873' VS					
10662.71	75.99	229.18	8902.59	-1224.43	-1417.36

Job Number: P97-102
Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Rig Name:

State/Country:
Declination: 9.11 DEG EAST
Grid:
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: 28-Feb-97 / 06:50
Curve Name: SOUTHWEST WELL PATH

Phoenix Drilling Services, Inc.

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 229.18

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
KOP: 8690' MD, 57.3 DEG/100'										
8690.00	.00	229.18	8690.00	4616.00	.00	.00	.00	.00	.00	.00
8700.00	5.73	229.18	8699.98	4625.98	-.33	-.38	.50	.50	229.18	57.30
8710.00	11.46	229.18	8709.87	4635.87	-1.30	-1.51	1.99	1.99	229.18	57.30
8720.00	17.19	229.18	8719.55	4645.55	-2.92	-3.38	4.47	4.47	229.18	57.30
8730.00	22.92	229.18	8728.94	4654.94	-5.16	-5.97	7.89	7.89	229.18	57.30
8740.00	28.65	229.18	8737.94	4663.94	-8.00	-9.26	12.24	12.24	229.18	57.30
8750.00	34.38	229.18	8746.46	4672.46	-11.42	-13.22	17.47	17.47	229.18	57.30
8760.00	40.11	229.18	8754.42	4680.42	-15.37	-17.80	23.52	23.52	229.18	57.30
8770.00	45.84	229.18	8761.73	4687.73	-19.83	-22.95	30.33	30.33	229.18	57.30
8780.00	51.57	229.18	8768.33	4694.33	-24.74	-28.64	37.84	37.84	229.18	57.30
8790.00	57.30	229.18	8774.14	4700.14	-30.05	-34.79	45.97	45.97	229.18	57.30
8800.00	63.03	229.18	8779.12	4705.12	-35.72	-41.35	54.64	54.64	229.18	57.30
8810.00	68.76	229.18	8783.20	4709.20	-41.69	-48.26	63.77	63.77	229.18	57.30

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
8820.00	74.49	229.18	8786.35	4712.35	-47.89	-55.43	73.25	73.25	229.18	57.30
EOB: 8827' MD, 8788' TVD, 78.5 DEG INC.										
8827.00	78.50	229.18	8787.98	4713.98	-52.33	-60.58	80.06	80.06	229.18	57.30
8927.00	78.50	229.18	8807.92	4733.92	-116.40	-134.74	178.05	178.05	229.18	.00
9027.00	78.50	229.18	8827.86	4753.86	-180.46	-208.89	276.04	276.04	229.18	.00
9127.00	78.50	229.18	8847.80	4773.80	-244.52	-283.04	374.03	374.03	229.18	.00
9227.00	78.50	229.18	8867.74	4793.74	-308.58	-357.20	472.03	472.03	229.18	.00
9275.00	78.50	229.18	8877.31	4803.31	-339.32	-392.79	519.06	519.06	229.18	.00
BUILD @ 15 DEG/100'										
9305.07	78.50	229.18	8883.30	4809.30	-358.59	-415.09	548.53	548.53	229.18	.00
9315.07	80.00	229.18	8885.17	4811.17	-365.01	-422.53	558.36	558.36	229.18	15.00
9325.07	81.50	229.18	8886.78	4812.78	-371.47	-430.00	568.23	568.23	229.18	15.00
9335.07	83.00	229.18	8888.12	4814.12	-377.94	-437.49	578.14	578.14	229.18	15.00
9345.07	84.50	229.18	8889.21	4815.21	-384.44	-445.02	588.08	588.08	229.18	15.00
9355.07	86.00	229.18	8890.04	4816.04	-390.96	-452.56	598.04	598.04	229.18	15.00
9365.07	87.50	229.18	8890.61	4816.61	-397.48	-460.11	608.03	608.03	229.18	15.00
9375.07	89.00	229.18	8890.91	4816.91	-404.02	-467.68	618.02	618.02	229.18	15.00
TARGET 1										
9381.75	90.00	229.18	8890.97	4816.97	-408.38	-472.72	624.69	624.69	229.18	15.00
9391.75	91.50	229.18	8890.84	4816.84	-414.91	-480.29	634.69	634.69	229.18	15.00
9401.75	93.00	229.18	8890.45	4816.45	-421.45	-487.85	644.68	644.68	229.18	15.00
9411.75	94.50	229.18	8889.79	4815.79	-427.97	-495.40	654.66	654.66	229.18	15.00
9421.75	96.00	229.18	8888.88	4814.88	-434.48	-502.94	664.62	664.62	229.18	15.00
9431.75	97.50	229.18	8887.70	4813.70	-440.97	-510.45	674.55	674.55	229.18	15.00
9441.75	99.00	229.18	8886.27	4812.27	-447.44	-517.94	684.45	684.45	229.18	15.00
9451.75	100.50	229.18	8884.58	4810.58	-453.88	-525.40	694.30	694.30	229.18	15.00
9461.75	102.00	229.18	8882.62	4808.62	-460.29	-532.82	704.11	704.11	229.18	15.00
9471.75	103.50	229.18	8880.42	4806.42	-466.67	-540.20	713.86	713.86	229.18	15.00
Hold @ 104.1										
9475.54	104.07	229.18	8879.51	4805.51	-469.08	-542.99	717.55	717.55	229.18	15.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
9575.54	104.07	229.18	8855.20	4781.20	-532.49	-616.40	814.55	814.55	229.18	.00
9675.54	104.07	229.18	8830.89	4756.89	-595.90	-689.80	911.55	911.55	229.18	.00
9775.54	104.07	229.18	8806.58	4732.58	-659.31	-763.20	1008.55	1008.55	229.18	.00
9875.54	104.07	229.18	8782.27	4708.27	-722.73	-836.60	1105.55	1105.55	229.18	.00
Drop @ 15.0 104.07°										
9926.67	104.07	229.18	8769.84	4695.84	-755.15	-874.14	1155.15	1155.15	229.18	.00
9926.69	104.07	229.18	8769.84	4695.84	-755.16	-874.15	1155.16	1155.16	229.18	15.00
9930.47	103.50	229.18	8768.94	4694.94	-757.56	-876.93	1158.83	1158.83	229.18	15.00
9940.47	102.00	229.18	8766.73	4692.73	-763.93	-884.31	1168.59	1168.59	229.18	15.00
9950.47	100.50	229.18	8764.78	4690.78	-770.35	-891.73	1178.39	1178.39	229.18	15.00
9960.47	99.00	229.18	8763.09	4689.09	-776.79	-899.19	1188.25	1188.25	229.18	15.00
9970.47	97.50	229.18	8761.65	4687.65	-783.26	-906.67	1198.14	1198.14	229.18	15.00
9980.47	96.00	229.18	8760.48	4686.48	-789.75	-914.19	1208.08	1208.08	229.18	15.00
9990.47	94.50	229.18	8759.56	4685.56	-796.26	-921.72	1218.03	1218.03	229.18	15.00
10000.47	93.00	229.18	8758.91	4684.91	-802.78	-929.28	1228.01	1228.01	229.18	15.00
10010.47	91.50	229.18	8758.52	4684.52	-809.31	-936.84	1238.00	1238.00	229.18	15.00
TARGET 2										
10020.47	90.00	229.18	8758.38	4684.38	-815.85	-944.40	1248.00	1248.00	229.18	15.00
10030.47	88.50	229.18	8758.52	4684.52	-822.39	-951.97	1258.00	1258.00	229.18	15.00
10040.47	87.00	229.18	8758.91	4684.91	-828.92	-959.53	1267.99	1267.99	229.18	15.00
10050.47	85.50	229.18	8759.56	4685.56	-835.44	-967.08	1277.97	1277.97	229.18	15.00
10060.47	84.00	229.18	8760.48	4686.48	-841.95	-974.62	1287.93	1287.93	229.18	15.00
10070.47	82.50	229.18	8761.65	4687.65	-848.44	-982.13	1297.86	1297.86	229.18	15.00
10080.47	81.00	229.18	8763.09	4689.09	-854.91	-989.62	1307.76	1307.76	229.18	15.00
10090.47	79.50	229.18	8764.78	4690.78	-861.36	-997.08	1317.61	1317.61	229.18	15.00
10100.47	78.00	229.18	8766.73	4692.73	-867.77	-1004.50	1327.42	1327.42	229.18	15.00
10110.47	76.50	229.18	8768.94	4694.94	-874.14	-1011.88	1337.17	1337.17	229.18	15.00
HOLD 75.99 DEG INC										
10113.85	75.99	229.18	8769.74	4695.74	-876.29	-1014.36	1340.45	1340.45	229.18	15.00
10213.85	75.99	229.18	8793.95	4719.95	-939.72	-1087.79	1437.48	1437.48	229.18	.00
10313.85	75.99	229.18	8818.15	4744.15	-1003.15	-1161.21	1534.51	1534.51	229.18	.00
10413.85	75.99	229.18	8842.35	4768.35	-1066.58	-1234.63	1631.53	1631.53	229.18	.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
10513.85	75.99	229.18	8866.56	4792.56	-1130.00	-1308.06	1728.56	1728.56	229.18	.00
10613.85	75.99	229.18	8890.76	4816.76	-1193.43	-1381.48	1825.59	1825.59	229.18	.00
TD: 10663' MD, 1873' VS										
10662.71	75.99	229.18	8902.59	4828.59	-1224.43	-1417.36	1873.00	1873.00	229.18	.00

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

❑ NSL ☒ NSP ☒ DD ❑ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

❑ DHC ❑ CTB ❑ PLC ❑ PC ❑ OLS ❑ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

❑ WFX ❑ PMX ❑ SWD ❑ IPI ❑ EOR ❑ PPR

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ❑ Does Not Apply

[A] ❑ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ❑ Application is One Which Requires Published Legal Notice

[D] ❑ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ❑ Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

C. WADE HOWARD	C. Wade Howard	ENGINEER ASSISTANT	3/4/97
Print or Type Name	Signature	Title	Date

Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

February 27, 1997

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Proration Unit
North Vacuum Abo West Unit Well No. 29
Vacuum Abo, North Field
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Michael E. Stogner

Gentlemen:

Administrative approval, Rule 104.D, and Rule 111.D, is requested to directionally drill a dual lateral horizontal well in a non-standard proration unit in the Abo formation.

The North Vacuum Abo West Unit is a candidate for horizontal wells due to the heterogeneous nature of the reservoir. This Unit was designated a "Project Area" for horizontal drilling in 1996 (see Administrative Orders DD-153H and DD-154H). We have completed one successful horizontal well in this Unit (Well No. 26) and are currently drilling a second horizontal well (No. 27).

Attached for your information is a copy of our directional plans, a type log section, and Form C-102.

The "affected" offset operator to this well has been notified of this request. (See attached offset operator's list and certified mail receipts.)

Any questions concerning this request should be directed to me at (915) 688-4606.

Yours very truly,

C. Wade Howard

C. W. Howard
Engineer's Assistant

CWH:
CC: NMOCD, P. O. Box 1980, Hobbs, NM 88240
Attachments

DISTRICT I
P. O. Box 1980, Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	61760	Vacuum Abo, North

[4] Property Code	[5] Property Name	[6] Well Number
11123	North Vacuum Abo West Unit	29

[7] OGRID No.	[8] Operator Name	[9] Elevation
22351	TEXACO EXPLORATION & PRODUCTION, INC.	4057'

[10] Surface Location

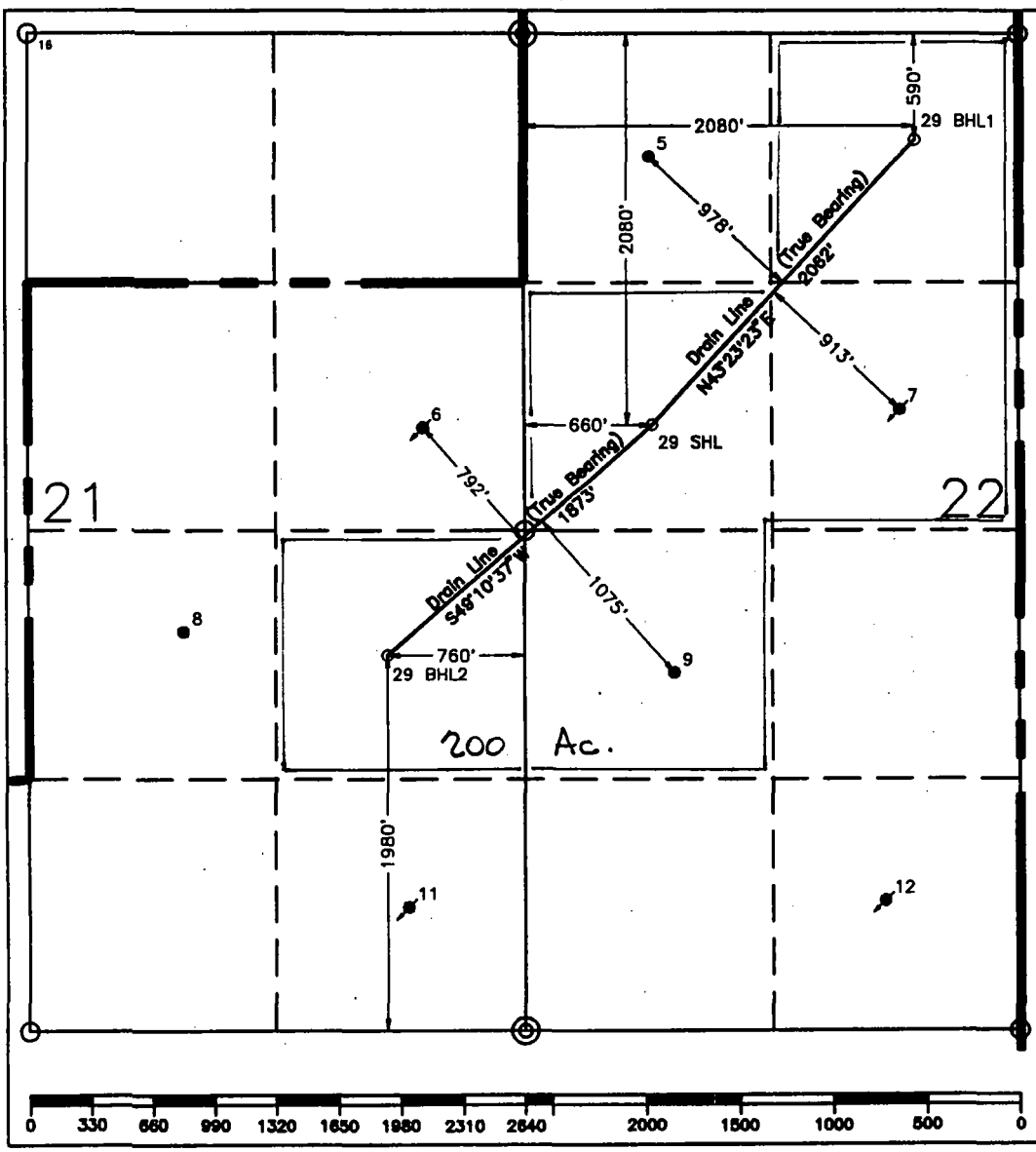
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	[7] County
E	22	17-S	34-E		2080'	North	660'	West	Lea

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	[7] County
L1 C/L2 I	22/21	17-S	34-E		590'/1980'	North/South	2080'/760'	West/East	Lea

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
200			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.



[16] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: C. Wade Howard

Printed Name: C. Wade Howard

Position: Engineer's Assistant

Company: Texaco Expl. & Prod. Inc.

Date: February 26, 1997

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: February 21, 1997

Signature & Seal of Professional Surveyor

Certificate No. 7254 John S. Piper

Sheet

0 = Staked Location ● = Producing Well = Injection Well ☼ = Water Supply Well ✚ = Plugged & Abandon Well

Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

February 27, 1997

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Location
North Vacuum Abo West Unit Well No. 29
Sec. 22, T-17-S, R-34-E
Lea County, New Mexico

TO THE OFFSET OPERATORS:

Gentlemen:

As an offset operator to the captioned unit, you are being furnished with a copy of our Application to directionally drill a horizontal well. If you have no objection, please sign the waiver at the bottom of this letter and return in the enclosed envelope.

Any questions concerning this request should be directed to me at (915) 688-4606.

Yours very truly,

C. Wade Howard

C. W. Howard
Engineer's Assistant

CWH:cwh

File

WAIVER APPROVED:

COMPANY: _____

BY: _____

DATE: _____

OFFSET OPERATOR'S LIST
North Vacuum Abo West Unit Well No. 29
LEA COUNTY, NEW MEXICO

Mobil Exploration and Producing US Inc.
P. O. Box 633
Midland, Texas 79702

Mack Energy Corporation
P. O. Box 1767
Artesia, NM 88211

Chevron USA Inc.
P. O. Box 1150
Midland, Texas 79702

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mobil Exploration and Producing Inc.
P. O. Box 633
Midland, TX 79702

4a. Article Number
P 329 313 829

4b. Service Type
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail XX Return Receipt for Merchandise

7. Date of Delivery MAR 0 3 1997

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
Jesse H Reyes

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mack Energy Corporation
P. O. Box 1767
Artesia, NM 88211

4a. Article Number
P 329 313 830

4b. Service Type
☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail XX Return Receipt for Merchandise

7. Date of Delivery 2-28-97

5. Signature (Addressee)
Sylvia Dempley

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
Sylvia Headley

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Chevron USA Inc.
P. O. Box 1150
Midland, TX 79702

4a. Article Number
P 329 313 831

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
FEB 28 1997

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

4a. Article Number
P 329 313 832

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
2-28-97

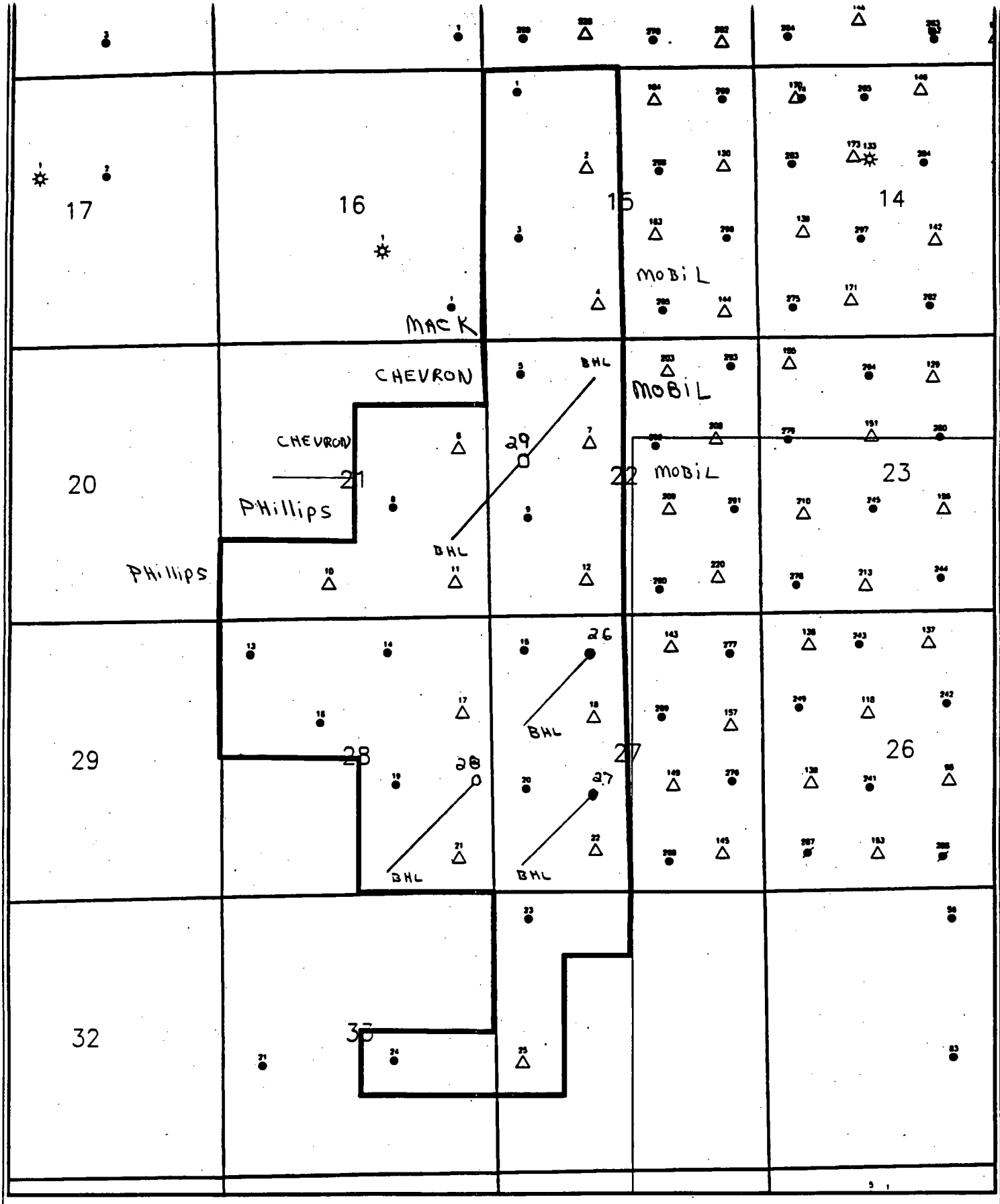
5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.



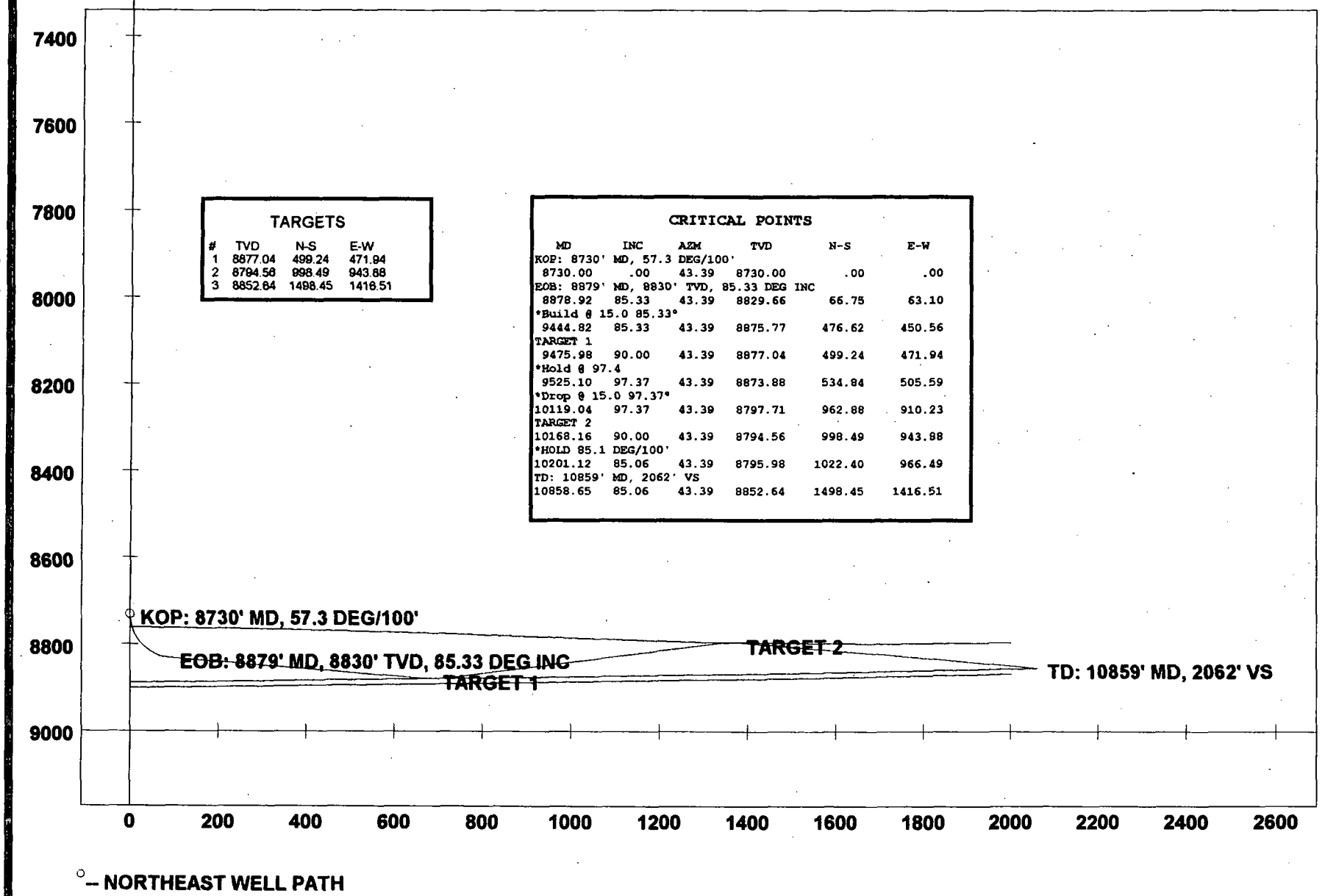
Scale 1:30000.

0.2 0. 0.2 0.4 0.6 0.8 1. miles

0.2 0. 0.2 0.4 0.6 0.8 1. kilometers

Texaco Exploration & Production, In		
WELL No. 29 North Vacuum Abo West Unit Base Map, Wells > 8,000' TD		

Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Declination: 9.11 DEG EAST
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: Friday, February 28, 1997



TARGETS

#	TVD	N-S	E-W
1	8877.04	499.24	471.94
2	8794.58	998.49	943.88
3	8852.64	1498.45	1416.51

CRITICAL POINTS

MD	INC	AZM	TVD	N-S	E-W
KOP: 8730' MD, 57.3 DEG/100'					
8730.00	.00	43.39	8730.00	.00	.00
EOB: 8879' MD, 8830' TVD, 85.33 DEG INC					
8878.92	85.33	43.39	8829.66	66.75	63.10
*Build @ 15.0 85.33°					
9444.82	85.33	43.39	8875.77	476.62	450.56
TARGET 1					
9475.98	90.00	43.39	8877.04	499.24	471.94
*Hold @ 97.4					
9525.10	97.37	43.39	8873.88	534.84	505.59
*Drop @ 15.0 97.37°					
10119.04	97.37	43.39	8797.71	962.88	910.23
TARGET 2					
10168.16	90.00	43.39	8794.56	998.49	943.88
*HOLD 85.1 DEG/100'					
10201.12	85.06	43.39	8795.98	1022.40	966.49
TD: 10859' MD, 2062' VS					
10858.65	85.06	43.39	8852.64	1498.45	1416.51

Job Number: P97-102
Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Rig Name:

State/Country:
Declination: 9.11 DEG EAST
Grid:
File name: C:\WINSERVE\NVAW29NE.SVY
Date/Time: 28-Feb-97 / 06:06
Curve Name: PROPOSED WELL PATH

Phoenix Drilling Services, Inc.

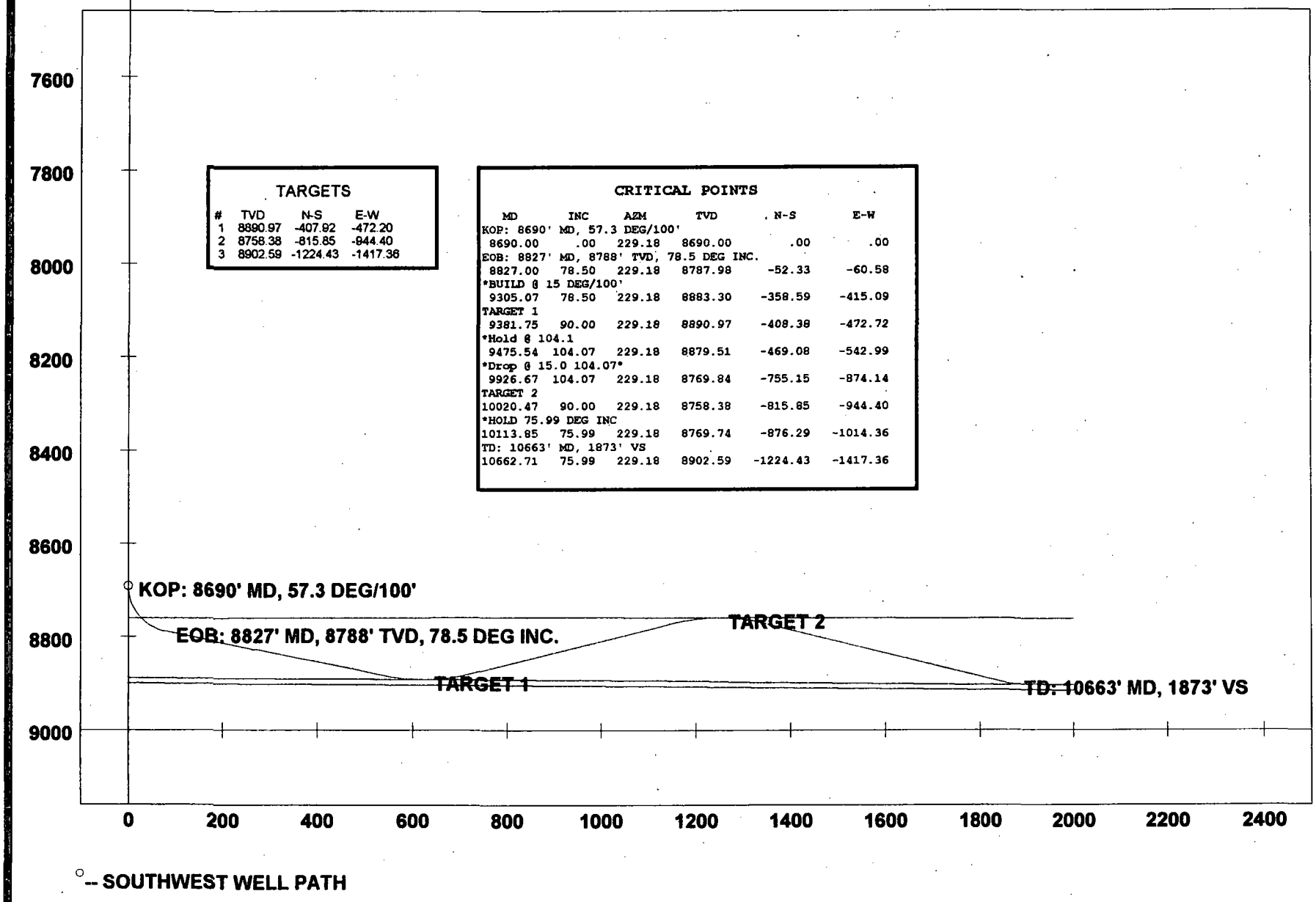
WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 43.39

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
KOP: 8730' MD, 57.3 DEG/100'										
8730.00	.00	43.39	8730.00	4656.00	.00	.00	.00	.00	.00	.00
8740.00	5.73	43.39	8739.98	4665.98	.36	.34	.50	.50	43.39	57.30
8750.00	11.46	43.39	8749.87	4675.87	1.45	1.37	1.99	1.99	43.39	57.30
8760.00	17.19	43.39	8759.55	4685.55	3.25	3.07	4.47	4.47	43.39	57.30
8770.00	22.92	43.39	8768.94	4694.94	5.74	5.42	7.89	7.89	43.39	57.30
8780.00	28.65	43.39	8777.94	4703.94	8.90	8.41	12.24	12.24	43.39	57.30
8790.00	34.38	43.39	8786.46	4712.46	12.69	12.00	17.47	17.47	43.39	57.30
8800.00	40.11	43.39	8794.42	4720.42	17.09	16.16	23.52	23.52	43.39	57.30
8810.00	45.84	43.39	8801.73	4727.73	22.04	20.84	30.33	30.33	43.39	57.30
8820.00	51.57	43.39	8808.33	4734.33	27.50	26.00	37.84	37.84	43.39	57.30
8830.00	57.30	43.39	8814.14	4740.14	33.41	31.58	45.97	45.97	43.39	57.30
8840.00	63.03	43.39	8819.12	4745.12	39.71	37.54	54.64	54.64	43.39	57.30
8850.00	68.76	43.39	8823.20	4749.20	46.34	43.81	63.77	63.77	43.39	57.30

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
8860.00	74.49	43.39	8826.35	4752.35	53.23	50.32	73.25	73.25	43.39	57.30
8870.00	80.22	43.39	8828.54	4754.54	60.32	57.02	83.01	83.01	43.39	57.30
EOB: 8879' MD, 8830' TVD, 85.33 DEG INC										
8878.92	85.33	43.39	8829.66	4755.66	66.75	63.10	91.85	91.85	43.39	57.29
8979.11	85.33	43.39	8837.82	4763.82	139.32	131.70	191.71	191.71	43.39	.00
9079.11	85.33	43.39	8845.97	4771.97	211.74	200.16	291.38	291.38	43.39	.00
9179.11	85.33	43.39	8854.12	4780.12	284.17	268.63	391.05	391.05	43.39	.00
9279.11	85.33	43.39	8862.27	4788.27	356.60	337.10	490.71	490.71	43.39	.00
9379.11	85.33	43.39	8870.41	4796.41	429.03	405.57	590.38	590.38	43.39	.00
Build @ 15.0 85.33°										
9444.82	85.33	43.39	8875.77	4801.77	476.62	450.56	655.87	655.87	43.39	.00
9445.98	85.50	43.39	8875.86	4801.86	477.46	451.35	657.03	657.03	43.39	15.00
9455.98	87.00	43.39	8876.51	4802.51	484.71	458.21	667.01	667.01	43.39	15.00
9465.98	88.50	43.39	8876.91	4802.91	491.97	465.07	677.00	677.00	43.39	15.00
TARGET 1										
9475.98	90.00	43.39	8877.04	4803.04	499.24	471.94	687.00	687.00	43.39	15.00
9485.98	91.50	43.39	8876.91	4802.91	506.51	478.81	697.00	697.00	43.39	15.00
9495.98	93.00	43.39	8876.51	4802.51	513.77	485.67	706.99	706.99	43.39	15.00
9505.98	94.50	43.39	8875.86	4801.86	521.02	492.53	716.97	716.97	43.39	15.00
9515.98	96.00	43.39	8874.95	4800.95	528.25	499.37	726.93	726.93	43.39	15.00
Hold @ 97.4										
9525.10	97.37	43.39	8873.88	4799.88	534.84	505.59	735.99	735.99	43.39	15.00
9625.10	97.37	43.39	8861.06	4787.06	606.91	573.72	835.16	835.16	43.39	.00
9725.10	97.37	43.39	8848.23	4774.23	678.98	641.85	934.34	934.34	43.39	.00
9825.10	97.37	43.39	8835.41	4761.41	751.05	709.98	1033.51	1033.51	43.39	.00
9925.10	97.37	43.39	8822.58	4748.58	823.12	778.11	1132.68	1132.68	43.39	.00
10025.10	97.37	43.39	8809.76	4735.76	895.19	846.23	1231.86	1231.86	43.39	.00
Drop @ 15.0 97.37°										
10119.04	97.37	43.39	8797.71	4723.71	962.88	910.23	1325.01	1325.01	43.39	.00
10119.11	97.36	43.39	8797.70	4723.70	962.93	910.27	1325.08	1325.08	43.39	15.00
10128.16	96.00	43.39	8796.65	4722.65	969.47	916.45	1334.08	1334.08	43.39	15.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
10138.16	94.50	43.39	8795.73	4721.73	976.71	923.29	1344.03	1344.03	43.39	15.00
10148.16	93.00	43.39	8795.08	4721.08	983.96	930.15	1354.01	1354.01	43.39	15.00
10158.16	91.50	43.39	8794.69	4720.69	991.22	937.01	1364.00	1364.00	43.39	15.00
TARGET 2										
10168.16	90.00	43.39	8794.56	4720.56	998.49	943.88	1374.00	1374.00	43.39	15.00
10178.16	88.50	43.39	8794.69	4720.69	1005.75	950.75	1384.00	1384.00	43.39	15.00
10188.16	87.00	43.39	8795.08	4721.08	1013.01	957.61	1393.99	1393.99	43.39	15.00
10198.16	85.50	43.39	8795.73	4721.73	1020.26	964.47	1403.97	1403.97	43.39	15.00
HOLD 85.1 DEG/100'										
10201.12	85.06	43.39	8795.98	4721.98	1022.40	966.49	1406.92	1406.92	43.39	15.00
10301.12	85.06	43.39	8804.59	4730.59	1094.80	1034.93	1506.55	1506.55	43.39	.00
10401.12	85.06	43.39	8813.21	4739.21	1167.20	1103.37	1606.17	1606.17	43.39	.00
10501.12	85.06	43.39	8821.83	4747.83	1239.60	1171.81	1705.80	1705.80	43.39	.00
10601.12	85.06	43.39	8830.44	4756.44	1312.00	1240.25	1805.43	1805.43	43.39	.00
10701.12	85.06	43.39	8839.06	4765.06	1384.40	1308.69	1905.06	1905.06	43.39	.00
10801.12	85.06	43.39	8847.68	4773.68	1456.80	1377.13	2004.69	2004.69	43.39	.00
TD: 10859' MD, 2062' VS										
10858.65	85.06	43.39	8852.64	4778.64	1498.45	1416.51	2062.00	2062.00	43.39	.00

Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Declination: 9.11 DEG EAST
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: Friday, February 28, 1997



TARGETS

#	TVD	N-S	E-W
1	8890.97	-407.92	-472.20
2	8758.38	-815.85	-844.40
3	8902.59	-1224.43	-1417.36

CRITICAL POINTS

MD	INC	AZM	TVD	N-S	E-W
KOP: 8690' MD, 57.3 DEG/100'					
8690.00	.00	229.18	8690.00	.00	.00
EOB: 8827' MD, 8788' TVD, 78.5 DEG INC.					
8827.00	78.50	229.18	8787.98	-52.33	-60.58
*BUILD @ 15 DEG/100'					
9305.07	78.50	229.18	8883.30	-358.59	-415.09
TARGET 1					
9381.75	90.00	229.18	8890.97	-408.38	-472.72
*Hold @ 104.1					
9475.54	104.07	229.18	8879.51	-469.08	-542.99
Drop @ 15.0 104.07					
9926.67	104.07	229.18	8769.84	-755.15	-874.14
TARGET 2					
10020.47	90.00	229.18	8758.38	-815.85	-944.40
*HOLD 75.99 DEG INC					
10113.85	75.99	229.18	8769.74	-876.29	-1014.36
TD: 10663' MD, 1873' VS					
10662.71	75.99	229.18	8902.59	-1224.43	-1417.36

Job Number: P97-102
Company: TEXACO E & P, INC.
Lease/Well: NVAWU #29H
Location: LEA COUNTY, NEW MEXICO
Rig Name:

State/Country:
Declination: 9.11 DEG EAST
Grid:
File name: C:\WINSERVE\NVAW29SW.SVY
Date/Time: 28-Feb-97 / 06:50
Curve Name: SOUTHWEST WELL PATH

Phoenix Drilling Services, Inc.

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 229.18

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
KOP: 8690' MD, 57.3 DEG/100'										
8690.00	.00	229.18	8690.00	4616.00	.00	.00	.00	.00	.00	.00
8700.00	5.73	229.18	8699.98	4625.98	-.33	-.38	.50	.50	229.18	57.30
8710.00	11.46	229.18	8709.87	4635.87	-1.30	-1.51	1.99	1.99	229.18	57.30
8720.00	17.19	229.18	8719.55	4645.55	-2.92	-3.38	4.47	4.47	229.18	57.30
8730.00	22.92	229.18	8728.94	4654.94	-5.16	-5.97	7.89	7.89	229.18	57.30
8740.00	28.65	229.18	8737.94	4663.94	-8.00	-9.26	12.24	12.24	229.18	57.30
8750.00	34.38	229.18	8746.46	4672.46	-11.42	-13.22	17.47	17.47	229.18	57.30
8760.00	40.11	229.18	8754.42	4680.42	-15.37	-17.80	23.52	23.52	229.18	57.30
8770.00	45.84	229.18	8761.73	4687.73	-19.83	-22.95	30.33	30.33	229.18	57.30
8780.00	51.57	229.18	8768.33	4694.33	-24.74	-28.64	37.84	37.84	229.18	57.30
8790.00	57.30	229.18	8774.14	4700.14	-30.05	-34.79	45.97	45.97	229.18	57.30
8800.00	63.03	229.18	8779.12	4705.12	-35.72	-41.35	54.64	54.64	229.18	57.30
8810.00	68.76	229.18	8783.20	4709.20	-41.69	-48.26	63.77	63.77	229.18	57.30

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
8820.00	74.49	229.18	8786.35	4712.35	-47.89	-55.43	73.25	73.25	229.18	57.30
EOB: 8827' MD, 8788' TVD, 78.5 DEG INC.										
8827.00	78.50	229.18	8787.98	4713.98	-52.33	-60.58	80.06	80.06	229.18	57.30
8927.00	78.50	229.18	8807.92	4733.92	-116.40	-134.74	178.05	178.05	229.18	.00
9027.00	78.50	229.18	8827.86	4753.86	-180.46	-208.89	276.04	276.04	229.18	.00
9127.00	78.50	229.18	8847.80	4773.80	-244.52	-283.04	374.03	374.03	229.18	.00
9227.00	78.50	229.18	8867.74	4793.74	-308.58	-357.20	472.03	472.03	229.18	.00
9275.00	78.50	229.18	8877.31	4803.31	-339.32	-392.79	519.06	519.06	229.18	.00
BUILD @ 15 DEG/100'										
9305.07	78.50	229.18	8883.30	4809.30	-358.59	-415.09	548.53	548.53	229.18	.00
9315.07	80.00	229.18	8885.17	4811.17	-365.01	-422.53	558.36	558.36	229.18	15.00
9325.07	81.50	229.18	8886.78	4812.78	-371.47	-430.00	568.23	568.23	229.18	15.00
9335.07	83.00	229.18	8888.12	4814.12	-377.94	-437.49	578.14	578.14	229.18	15.00
9345.07	84.50	229.18	8889.21	4815.21	-384.44	-445.02	588.08	588.08	229.18	15.00
9355.07	86.00	229.18	8890.04	4816.04	-390.96	-452.56	598.04	598.04	229.18	15.00
9365.07	87.50	229.18	8890.61	4816.61	-397.48	-460.11	608.03	608.03	229.18	15.00
9375.07	89.00	229.18	8890.91	4816.91	-404.02	-467.68	618.02	618.02	229.18	15.00
TARGET 1										
9381.75	90.00	229.18	8890.97	4816.97	-408.38	-472.72	624.69	624.69	229.18	15.00
9391.75	91.50	229.18	8890.84	4816.84	-414.91	-480.29	634.69	634.69	229.18	15.00
9401.75	93.00	229.18	8890.45	4816.45	-421.45	-487.85	644.68	644.68	229.18	15.00
9411.75	94.50	229.18	8889.79	4815.79	-427.97	-495.40	654.66	654.66	229.18	15.00
9421.75	96.00	229.18	8888.88	4814.88	-434.48	-502.94	664.62	664.62	229.18	15.00
9431.75	97.50	229.18	8887.70	4813.70	-440.97	-510.45	674.55	674.55	229.18	15.00
9441.75	99.00	229.18	8886.27	4812.27	-447.44	-517.94	684.45	684.45	229.18	15.00
9451.75	100.50	229.18	8884.58	4810.58	-453.88	-525.40	694.30	694.30	229.18	15.00
9461.75	102.00	229.18	8882.62	4808.62	-460.29	-532.82	704.11	704.11	229.18	15.00
9471.75	103.50	229.18	8880.42	4806.42	-466.67	-540.20	713.86	713.86	229.18	15.00
Hold @ 104.1										
9475.54	104.07	229.18	8879.51	4805.51	-469.08	-542.99	717.55	717.55	229.18	15.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
9575.54	104.07	229.18	8855.20	4781.20	-532.49	-616.40	814.55	814.55	229.18	.00
9675.54	104.07	229.18	8830.89	4756.89	-595.90	-689.80	911.55	911.55	229.18	.00
9775.54	104.07	229.18	8806.58	4732.58	-659.31	-763.20	1008.55	1008.55	229.18	.00
9875.54	104.07	229.18	8782.27	4708.27	-722.73	-836.60	1105.55	1105.55	229.18	.00
Drop @ 15.0 104.07°										
9926.67	104.07	229.18	8769.84	4695.84	-755.15	-874.14	1155.15	1155.15	229.18	.00
9926.69	104.07	229.18	8769.84	4695.84	-755.16	-874.15	1155.16	1155.16	229.18	15.00
9930.47	103.50	229.18	8768.94	4694.94	-757.56	-876.93	1158.83	1158.83	229.18	15.00
9940.47	102.00	229.18	8766.73	4692.73	-763.93	-884.31	1168.59	1168.59	229.18	15.00
9950.47	100.50	229.18	8764.78	4690.78	-770.35	-891.73	1178.39	1178.39	229.18	15.00
9960.47	99.00	229.18	8763.09	4689.09	-776.79	-899.19	1188.25	1188.25	229.18	15.00
9970.47	97.50	229.18	8761.65	4687.65	-783.26	-906.67	1198.14	1198.14	229.18	15.00
9980.47	96.00	229.18	8760.48	4686.48	-789.75	-914.19	1208.08	1208.08	229.18	15.00
9990.47	94.50	229.18	8759.56	4685.56	-796.26	-921.72	1218.03	1218.03	229.18	15.00
10000.47	93.00	229.18	8758.91	4684.91	-802.78	-929.28	1228.01	1228.01	229.18	15.00
10010.47	91.50	229.18	8758.52	4684.52	-809.31	-936.84	1238.00	1238.00	229.18	15.00
TARGET 2										
10020.47	90.00	229.18	8758.38	4684.38	-815.85	-944.40	1248.00	1248.00	229.18	15.00
10030.47	88.50	229.18	8758.52	4684.52	-822.39	-951.97	1258.00	1258.00	229.18	15.00
10040.47	87.00	229.18	8758.91	4684.91	-828.92	-959.53	1267.99	1267.99	229.18	15.00
10050.47	85.50	229.18	8759.56	4685.56	-835.44	-967.08	1277.97	1277.97	229.18	15.00
10060.47	84.00	229.18	8760.48	4686.48	-841.95	-974.62	1287.93	1287.93	229.18	15.00
10070.47	82.50	229.18	8761.65	4687.65	-848.44	-982.13	1297.86	1297.86	229.18	15.00
10080.47	81.00	229.18	8763.09	4689.09	-854.91	-989.62	1307.76	1307.76	229.18	15.00
10090.47	79.50	229.18	8764.78	4690.78	-861.36	-997.08	1317.61	1317.61	229.18	15.00
10100.47	78.00	229.18	8766.73	4692.73	-867.77	-1004.50	1327.42	1327.42	229.18	15.00
10110.47	76.50	229.18	8768.94	4694.94	-874.14	-1011.88	1337.17	1337.17	229.18	15.00
HOLD 75.99 DEG INC										
10113.85	75.99	229.18	8769.74	4695.74	-876.29	-1014.36	1340.45	1340.45	229.18	15.00
10213.85	75.99	229.18	8793.95	4719.95	-939.72	-1087.79	1437.48	1437.48	229.18	.00
10313.85	75.99	229.18	8818.15	4744.15	-1003.15	-1161.21	1534.51	1534.51	229.18	.00
10413.85	75.99	229.18	8842.35	4768.35	-1066.58	-1234.63	1631.53	1631.53	229.18	.00

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	CLOSURE Direction Deg	Dogleg Severity Deg/100
10513.85	75.99	229.18	8866.56	4792.56	-1130.00	-1308.06	1728.56	1728.56	229.18	.00
10613.85	75.99	229.18	8890.76	4816.76	-1193.43	-1381.48	1825.59	1825.59	229.18	.00
TD: 10663' MD, 1873' VS										
10662.71	75.99	229.18	8902.59	4828.59	-1224.43	-1417.36	1873.00	1873.00	229.18	.00