



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

December 23, 1996

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

AMENDED Administrative Order DD-153(H)
High Angle/Horizontal

Dear Mr. Howard:

By Division Administrative Order DD-153(H), dated October 11, 1996, authorization was given Texaco Exploration and Production, Inc. ("Texaco") to initiate a high angle/horizontal directional drilling project within a non-standard 160-acre oil spacing and proration unit comprising the NW/4 of Section 27, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, North Vacuum Abo West Unit, North Vacuum Abo West Unit Waterflood Project Area, Lea County, New Mexico, by drilling its North Vacuum Abo West Unit Well No. 26 (API No. 30-025-33637) at a standard North Vacuum-Abo Pool surface oil well location 560 feet from the North line and 2080 feet from the West line (Unit C) of said Section 27, drill vertically to an approximate depth of 8600 feet, kick-off in a southwesterly direction with a short radius wellbore (57.3 degrees/100 feet), and drill horizontally a lateral distance of approximately 1,800 feet through the Abo formation. Said order further provided for an applicable drilling window or "producing area" for said horizontal wellbore such that no portion of the producing interval of said wellbore is to be no closer than 460 feet from the outer boundary of said 160-acre tract.

Reference is now made to your letter with attachments dated December 11, 1996, whereby an amendment should be issued in this order to accurately reflect the actual subsurface path of the producing portion of this wellbore.

The Division Director Finds That:

- (1) This application was originally approved under the provisions of Division General Rule 111.D;
- (2) In complying with the provisions of said order Texaco's survey of the vertical portion of the North Vacuum Abo West Unit Well No. 26 indicates that the penetration point of the Abo formation is located approximately 563 feet from the North line and 2251 feet from the West line of said Section 27, which is only 389

feet from the eastern boundary of the subject 160-acre tract; and,

- (3) This amendment has been duly filed under the provisions of Division General Rules 111.D, 111.E, and 104.F.

IT IS THEREFORE ORDERED THAT:

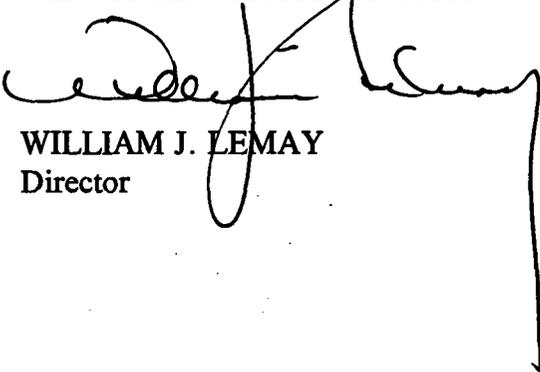
(1) Decretory Paragraph No. (4) Division Administrative Order DD-153(H) is hereby amended to properly reflect the actual subsurface path of the producing portion of said North Vacuum Abo West Unit Well No. 26 within the North Vacuum-Abo Pool such that the "producing area" for said horizontal wellbore shall include that area within the NW/4 of said Section 27 that is no closer than 389 feet from the eastern boundary of said 160-acre tract nor closer than 460 feet from the northern, western, or southern boundaries of said 160-acre tract.

(2) All other provisions of said Order DD-153(H), dated October 11, 1996, not in conflict with this change shall remain in full force and effect until further notice.

(3) 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

SEAL

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe
File: DD-153(H)



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

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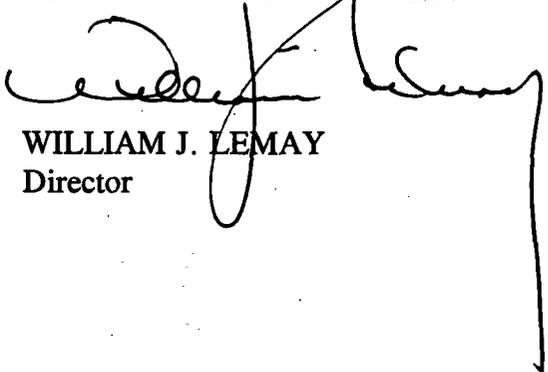
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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

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
File: DD-153(H)

Rec: 12-16-96
Susp: WA
Released 12-23-96

December 23, 1996

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

Attention: C. Wade Howard

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High Angle/Horizontal

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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
File: DD-153(H)

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]

OIL CONSERVATION
RECEIVED
96 DEC 16 AM 8

[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

See
DD-136.1110
for an example

[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
Print or Type Name

C. Wade Howard
Signature

ENGINEER ASSISTANT
Title

12/11/96
Date



Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

December 11, 1996

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Administrative Order DD-153(H)
Non-Standard Location
North Vacuum Abo West Unit Well No. 26
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.F. (2), is requested for a non-standard location for the Penetration Point in the Abo formation for the captioned well.

Texaco drilled the vertical wellbore and set production casing at 6000'. The directional survey indicated that the bottom-hole location is located at 563' FNL and 2251' FWL of Section 18, T-17-S, R-34-E, which will be our penetration point for the Abo formation. This penetration point is 389' from our Lease line, which makes this a non-standard location.

Attached for your information is a copy of our directional survey, and Form C-102.

Mobil is the only "affected" offset operator to this well has been notified of this request. (see attached waiver)

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

Yours very truly,

C. W. Howard
Engineer's Assistant

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



Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

December 11, 1996

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Location
North Vacuum Abo West Unit Well No. 26
Sec. 27, T-17-S, R-34-E
Lea County, New Mexico

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

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: Mobil Producing TEXAS & New Mexico Inc.

BY: *D. Pequeno*
D PEQUENO - Land/Joint Interest Advisor

DATE: 12-11-96

SCIENTIFIC DRILLING

MIDLAND, TEXAS

TEXACO, INC.

Well Name	: NVAB-WV #26
Location	: LEA COUNTY, NEW MEXICO
SHL	:
BHL	:
ACTUAL BHL	:
Date	: 30 NOVEMBER 1996
Job Number	: 32K1196536
Surveyor	: GARY DESPAIN

This survey is correct to the best of my knowledge and is supported by actual field data.

.....*George Moody*..... **COMPANY REPRESENTATIVE**

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :

Page 1 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

Height Of WELLSITE Datum Above Field Datum 0.00 ft

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
0.0	0.00	N 0.00°E	0.00	0.00	0.00	0.00	0.0
100.0	0.63	S17.30°E	100.00	-0.52	0.16	0.17	0.6
200.0	0.77	S22.87°E	199.99	-1.67	0.59	0.62	0.2
300.0	0.93	S23.97°E	299.98	-3.03	1.18	1.24	0.2
400.0	0.89	S23.31°E	399.97	-4.48	1.82	1.91	0.0
500.0	0.90	S21.90°E	499.95	-5.93	2.42	2.54	0.0
600.0	0.80	S20.37°E	599.94	-7.31	2.95	3.10	0.1
700.0	0.79	S23.90°E	699.93	-8.59	3.47	3.65	0.0
800.0	0.66	S19.19°E	799.93	-9.77	3.94	4.15	0.1
900.0	0.85	S27.64°E	899.92	-10.97	4.48	4.70	0.2
1000.0	0.71	S26.28°E	999.91	-12.18	5.09	5.35	0.1
1100.0	0.76	S31.08°E	1099.90	-13.31	5.71	5.99	0.1
1200.0	0.99	S40.65°E	1199.89	-14.53	6.62	6.92	0.3
1300.0	1.10	S47.18°E	1299.87	-15.84	7.88	8.21	0.2
1400.0	1.17	S51.29°E	1399.85	-17.13	9.38	9.74	0.1
1500.0	1.33	S51.30°E	1499.83	-18.49	11.09	11.47	0.2
1600.0	1.20	S48.43°E	1599.80	-19.91	12.78	13.19	0.1
1700.0	1.14	S53.71°E	1699.78	-21.20	14.36	14.80	0.1
1800.0	1.06	S54.43°E	1799.76	-22.32	15.92	16.38	0.1
1900.0	1.02	S53.43°E	1899.75	-23.39	17.38	17.87	0.0
2000.0	1.06	S55.93°E	1999.73	-24.44	18.86	19.37	0.1
2100.0	1.10	S55.45°E	2099.71	-25.50	20.42	20.95	0.0
2200.0	1.12	S57.15°E	2199.70	-26.58	22.03	22.58	0.0
2300.0	1.14	S59.14°E	2299.68	-27.62	23.71	24.28	0.0
2400.0	1.24	S66.18°E	2399.65	-28.56	25.55	26.14	0.2
2500.0	1.29	S67.68°E	2499.63	-29.43	27.58	28.19	0.1
2600.0	1.68	S85.16°E	2599.60	-29.98	30.08	30.70	0.6
2700.0	1.77	N86.35°E	2699.55	-30.01	33.09	33.70	0.3
2800.0	1.92	N85.22°E	2799.50	-29.77	36.30	36.91	0.2
2900.0	1.86	N84.10°E	2899.45	-29.46	39.58	40.19	0.1
3000.0	1.85	N85.31°E	2999.39	-29.16	42.80	43.40	0.0
3100.0	1.81	N87.91°E	3099.34	-28.97	45.99	46.58	0.1
3200.0	1.64	N88.74°E	3199.30	-28.88	49.00	49.59	0.2
3300.0	1.46	N86.77°E	3299.26	-28.78	51.70	52.29	0.2
3400.0	1.29	N88.23°E	3399.23	-28.67	54.10	54.68	0.2
3500.0	1.24	N86.77°E	3499.21	-28.58	56.30	56.89	0.1
3600.0	1.21	N87.13°E	3599.18	-28.46	58.44	59.02	0.0
3700.0	1.17	N81.64°E	3699.16	-28.26	60.50	61.08	0.1
3800.0	1.19	N69.70°E	3799.14	-27.75	62.49	63.05	0.2
3900.0	1.24	N67.47°E	3899.12	-26.98	64.46	65.01	0.1

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :
 Height Of WELLSITE Datum Above Field Datum 0.00 ft

Page 2 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
4000.0	1.30	N65.36°E	3999.09	-26.09	66.49	67.02	0.1
4100.0	1.33	N57.48°E	4099.07	-24.99	68.50	69.01	0.2
4200.0	1.38	N53.23°E	4199.04	-23.65	70.44	70.92	0.1
4300.0	1.43	N51.21°E	4299.01	-22.15	72.38	72.83	0.1
4400.0	1.46	N48.00°E	4398.98	-20.51	74.30	74.71	0.1
4500.0	1.52	N50.29°E	4498.94	-18.81	76.27	76.64	0.1
4600.0	1.55	N47.79°E	4598.91	-17.06	78.29	78.63	0.1
4700.0	1.46	N47.96°E	4698.87	-15.30	80.24	80.54	0.1
4800.0	1.33	N49.63°E	4798.84	-13.69	82.07	82.34	0.1
4900.0	1.33	N50.87°E	4898.82	-12.21	83.85	84.09	0.0
5000.0	1.30	N51.61°E	4998.79	-10.77	85.64	85.85	0.0
5100.0	1.38	N60.52°E	5098.76	-9.47	87.58	87.76	0.2
5200.0	1.40	N69.38°E	5198.73	-8.45	89.77	89.93	0.2
5300.0	1.38	N67.24°E	5298.71	-7.55	92.02	92.16	0.1
5400.0	1.44	N72.01°E	5398.67	-6.70	94.33	94.45	0.1
5500.0	1.46	N68.58°E	5498.64	-5.85	96.71	96.81	0.1
5600.0	1.55	N67.61°E	5598.61	-4.87	99.15	99.23	0.1
5700.0	1.45	N72.33°E	5698.57	-3.97	101.60	101.66	0.2
5800.0	1.36	N79.57°E	5798.54	-3.37	103.98	104.02	0.2
5900.0	1.35	N78.55°E	5898.52	-2.92	106.30	106.34	0.0
6000.0	1.34	N76.80°E	5998.49	-2.42	108.59	108.62	0.0
6100.0	1.26	N77.87°E	6098.46	-1.92	110.80	110.82	0.1
6200.0	1.22	N77.50°E	6198.44	-1.46	112.92	112.92	0.0
6300.0	1.24	N80.87°E	6298.42	-1.06	115.03	115.02	0.1
6400.0	1.22	N77.46°E	6398.39	-0.65	117.13	117.12	0.1
6500.0	1.25	N76.69°E	6498.37	-0.17	119.23	119.21	0.0
6600.0	1.28	N75.30°E	6598.35	0.36	121.38	121.34	0.0
6700.0	1.31	N75.00°E	6698.32	0.94	123.56	123.51	0.0
6800.0	1.33	N80.30°E	6798.29	1.43	125.81	125.75	0.1
6900.0	1.35	N81.88°E	6898.27	1.79	128.12	128.05	0.0
7000.0	1.38	N86.27°E	6998.24	2.04	130.49	130.42	0.1
7100.0	1.36	N87.22°E	7098.21	2.18	132.87	132.80	0.0
7200.0	1.46	S89.91°E	7198.18	2.23	135.33	135.26	0.1
7300.0	1.43	S89.92°E	7298.15	2.23	137.85	137.78	0.0
7400.0	1.45	S86.14°E	7398.12	2.14	140.36	140.29	0.1
7500.0	1.53	S87.01°E	7498.08	1.99	142.96	142.89	0.1
7600.0	1.39	S82.99°E	7598.05	1.77	145.50	145.43	0.2
7700.0	1.54	S86.58°E	7698.02	1.54	148.04	147.98	0.2
7800.0	1.49	S81.66°E	7797.98	1.27	150.67	150.61	0.1
7900.0	1.29	S79.63°E	7897.95	0.88	153.06	153.01	0.2

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :

Page 3 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

Height Of WELLSITE Datum Above Field Datum 0.00 ft No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
8000.0	1.41	S79.53°E	7997.92	0.45	155.38	155.34	0.1
8100.0	1.35	S75.45°E	8097.90	-0.07	157.73	157.70	0.1
8200.0	1.60	S82.22°E	8197.86	-0.55	160.25	160.23	0.3
8300.0	1.58	S78.51°E	8297.82	-1.01	162.99	162.97	0.1
8400.0	1.64	S78.81°E	8397.79	-1.57	165.74	165.74	0.1
8500.0	1.52	S77.90°E	8497.75	-2.12	168.44	168.45	0.1
8600.0	1.66	S78.12°E	8597.71	-2.70	171.16	171.18	0.1
8700.0	1.56	S80.36°E	8697.67	-3.22	173.92	173.95	0.1
8800.0	1.28	S82.75°E	8797.64	-3.59	176.37	176.40	0.3
8830.0	1.64	S81.99°E	8827.63	-3.70	177.12	177.16	1.2

Origin of Bottom Hole Closure WELLSITE CENTRE
 Bottom Hole Closure 177 ft S88.80°E

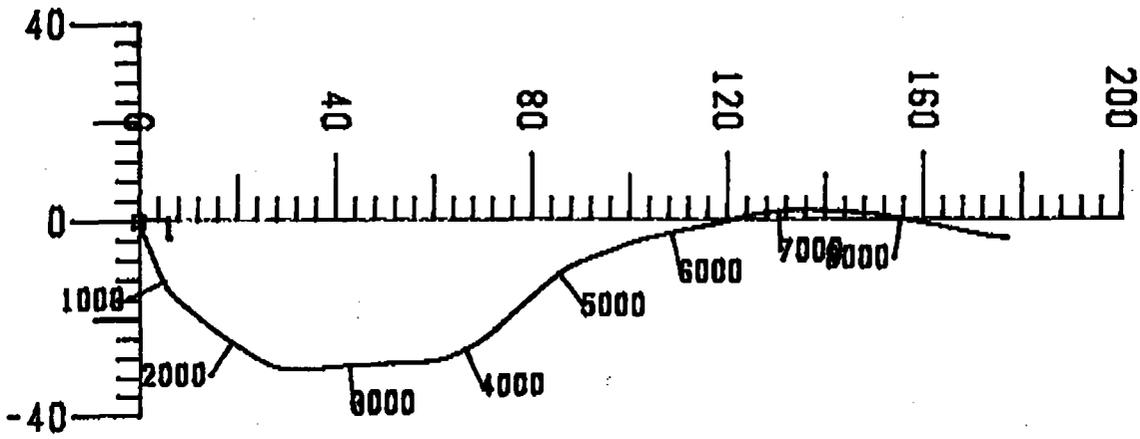


SCIENTIFIC DRILLING
For
TEXACO, INC.
NYAD-TV 028
in
LEA COUNTY, NEW MEXICO



Departure Scale 1 inch = 40 ft

Latitude Scale 1 inch = 100 ft





Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

December 11, 1996

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Administrative Order DD-153(H)
Non-Standard Location
North Vacuum Abo West Unit Well No. 26
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.F. (2), is requested for a non-standard location for the Penetration Point in the Abo formation for the captioned well.

Texaco drilled the vertical wellbore and set production casing at 6000'. The directional survey indicated that the bottom-hole location is located at 563' FNL and 2251' FWL of Section 18, T-17-S, R-34-E, which will be our penetration point for the Abo formation. This penetration point is 389' from our Lease line, which makes this a non-standard location.

Attached for your information is a copy of our directional survey, and Form C-102.

Mobil is the only "affected" offset operator to this well has been notified of this request. (see attached waiver)

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

Yours very truly,

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

Form C-102
Revised February 10, 1994

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

Instructions on back

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

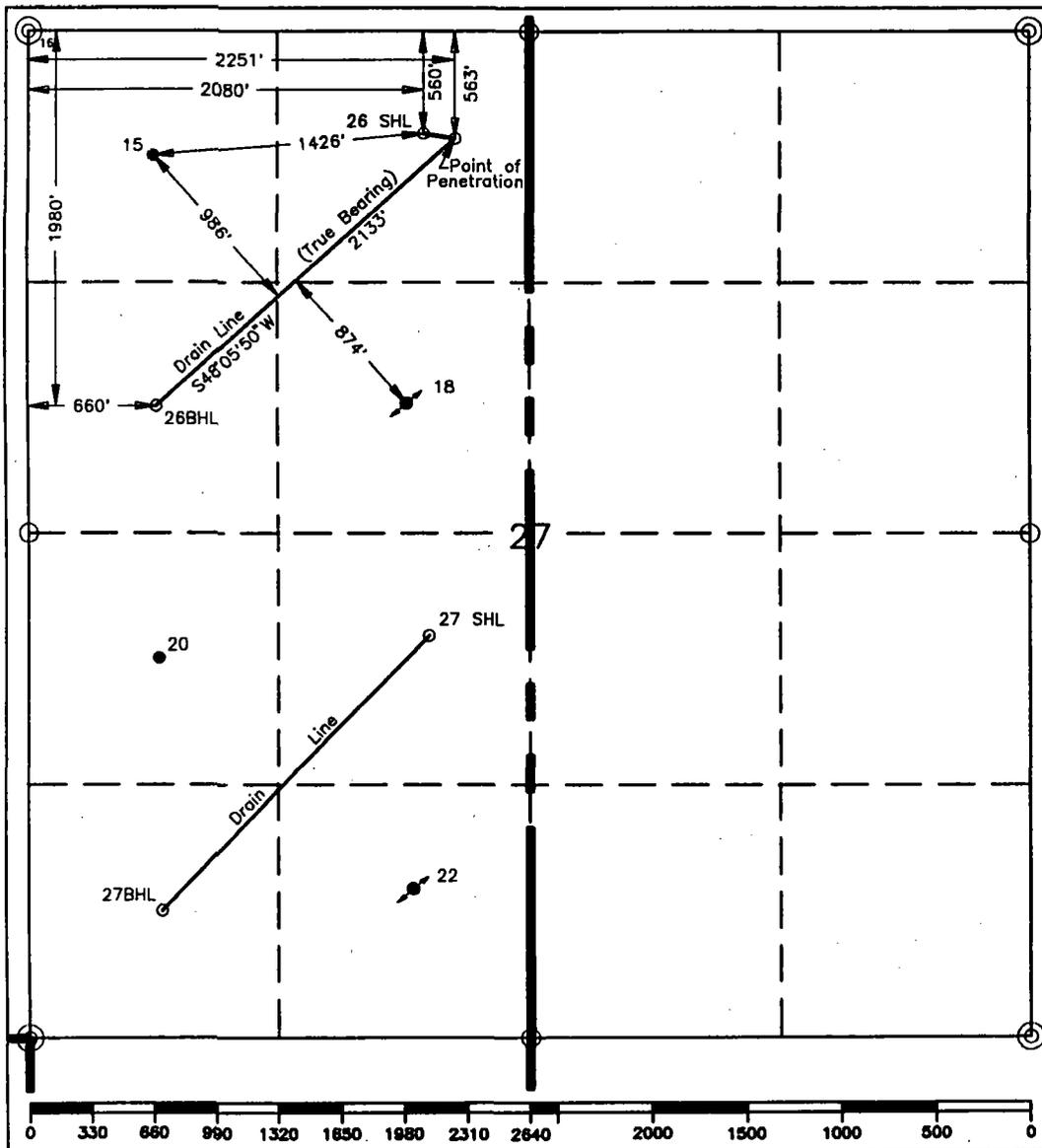
¹ API Number 30-025-33637		² Pool Code	³ Pool Name Vacuum Abo, North
⁴ Property Code 1123	⁵ Property Name North Vacuum Abo West Unit		⁶ Well Number 26
⁷ OGRID No. 22351	⁸ Operator Name TEXACO EXPLORATION & PRODUCTION, INC.		⁹ Elevation 4042'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	27	17-S	34-E		560'	North	2080'	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	County
E	27	17-S	34-E		1980'	North	660'	West	Lea

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-------------------------------------	-------------------------------	----------------------------------	-------------------------

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: December 11, 1996

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: August 30, 1996

Signature & Seal of Professional Surveyor: *John S. Piper*

Certificate No.: 7254 John S. Piper

Sheet



Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3109
Midland TX 79702

December 11, 1996

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Location
North Vacuum Abo West Unit Well No. 26
Sec. 27, T-17-S, R-34-E
Lea County, New Mexico

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

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: Mobil Producing TEXAS & New Mexico Inc.

BY: *D. Pequeno*

D. PEQUENO - Land/Joint Interest Advisor

DATE: 12-14-96

SCIENTIFIC DRILLING

MIDLAND, TEXAS

TEXACO, INC.

Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :
 Date : 30 NOVEMBER 1996
 Job Number : 32K1196536
 Surveyor : GARY DESPAIN

This survey is correct to the best of my knowledge and is supported by actual field data.

.....*George T. Nardy*..... COMPANY REPRESENTATIVE

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :
 Height Of WELLSITE Datum Above Field Datum 0.00 ft

Page 1 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
0.0	0.00	N 0.00° E	0.00	0.00	0.00	0.00	0.0
100.0	0.63	S17.30° E	100.00	-0.52	0.16	0.17	0.6
200.0	0.77	S22.87° E	199.99	-1.67	0.59	0.62	0.2
300.0	0.93	S23.97° E	299.98	-3.03	1.18	1.24	0.2
400.0	0.89	S23.31° E	399.97	-4.48	1.82	1.91	0.0
500.0	0.90	S21.90° E	499.95	-5.93	2.42	2.54	0.0
600.0	0.80	S20.37° E	599.94	-7.31	2.95	3.10	0.1
700.0	0.79	S23.90° E	699.93	-8.59	3.47	3.65	0.0
800.0	0.66	S19.19° E	799.93	-9.77	3.94	4.15	0.1
900.0	0.85	S27.64° E	899.92	-10.97	4.48	4.70	0.2
1000.0	0.71	S26.28° E	999.91	-12.18	5.09	5.35	0.1
1100.0	0.76	S31.08° E	1099.90	-13.31	5.71	5.99	0.1
1200.0	0.99	S40.65° E	1199.89	-14.53	6.62	6.92	0.3
1300.0	1.10	S47.18° E	1299.87	-15.84	7.88	8.21	0.2
1400.0	1.17	S51.29° E	1399.85	-17.13	9.38	9.74	0.1
1500.0	1.33	S51.30° E	1499.83	-18.49	11.09	11.47	0.2
1600.0	1.20	S48.43° E	1599.80	-19.91	12.78	13.19	0.1
1700.0	1.14	S53.71° E	1699.78	-21.20	14.36	14.80	0.1
1800.0	1.06	S54.43° E	1799.76	-22.32	15.92	16.38	0.1
1900.0	1.02	S53.43° E	1899.75	-23.39	17.38	17.87	0.0
2000.0	1.06	S55.93° E	1999.73	-24.44	18.86	19.37	0.1
2100.0	1.10	S55.45° E	2099.71	-25.50	20.42	20.95	0.0
2200.0	1.12	S57.15° E	2199.70	-26.58	22.03	22.58	0.0
2300.0	1.14	S59.14° E	2299.68	-27.62	23.71	24.28	0.0
2400.0	1.24	S66.18° E	2399.65	-28.56	25.55	26.14	0.2
2500.0	1.29	S67.68° E	2499.63	-29.43	27.58	28.19	0.1
2600.0	1.68	S85.16° E	2599.60	-29.98	30.08	30.70	0.6
2700.0	1.77	N86.35° E	2699.55	-30.01	33.09	33.70	0.3
2800.0	1.92	N85.22° E	2799.50	-29.77	36.30	36.91	0.2
2900.0	1.86	N84.10° E	2899.45	-29.46	39.58	40.19	0.1
3000.0	1.85	N85.31° E	2999.39	-29.16	42.80	43.40	0.0
3100.0	1.81	N87.91° E	3099.34	-28.97	45.99	46.58	0.1
3200.0	1.64	N88.74° E	3199.30	-28.88	49.00	49.59	0.2
3300.0	1.46	N86.77° E	3299.26	-28.78	51.70	52.29	0.2
3400.0	1.29	N88.23° E	3399.23	-28.67	54.10	54.68	0.2
3500.0	1.24	N86.77° E	3499.21	-28.58	56.30	56.89	0.1
3600.0	1.21	N87.13° E	3599.18	-28.46	58.44	59.02	0.0
3700.0	1.17	N81.64° E	3699.16	-28.26	60.50	61.08	0.1
3800.0	1.19	N69.70° E	3799.14	-27.75	62.49	63.05	0.2
3900.0	1.24	N67.47° E	3899.12	-26.98	64.46	65.01	0.1

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :

Page 2 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

Height Of WELLSITE Datum Above Field Datum 0.00 ft

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
4000.0	1.30	N65.36°E	3999.09	-26.09	66.49	67.02	0.1
4100.0	1.33	N57.48°E	4099.07	-24.99	68.50	69.01	0.2
4200.0	1.38	N53.23°E	4199.04	-23.65	70.44	70.92	0.1
4300.0	1.43	N51.21°E	4299.01	-22.15	72.38	72.83	0.1
4400.0	1.46	N48.00°E	4398.98	-20.51	74.30	74.71	0.1
4500.0	1.52	N50.29°E	4498.94	-18.81	76.27	76.64	0.1
4600.0	1.55	N47.79°E	4598.91	-17.06	78.29	78.63	0.1
4700.0	1.46	N47.96°E	4698.87	-15.30	80.24	80.54	0.1
4800.0	1.33	N49.63°E	4798.84	-13.69	82.07	82.34	0.1
4900.0	1.33	N50.87°E	4898.82	-12.21	83.85	84.09	0.0
5000.0	1.30	N51.61°E	4998.79	-10.77	85.64	85.85	0.0
5100.0	1.38	N60.52°E	5098.76	-9.47	87.58	87.76	0.2
5200.0	1.40	N69.38°E	5198.73	-8.45	89.77	89.93	0.2
5300.0	1.38	N67.24°E	5298.71	-7.55	92.02	92.16	0.1
5400.0	1.44	N72.01°E	5398.67	-6.70	94.33	94.45	0.1
5500.0	1.46	N68.58°E	5498.64	-5.85	96.71	96.81	0.1
5600.0	1.55	N67.61°E	5598.61	-4.87	99.15	99.23	0.1
5700.0	1.45	N72.33°E	5698.57	-3.97	101.60	101.66	0.2
5800.0	1.36	N79.57°E	5798.54	-3.37	103.98	104.02	0.2
5900.0	1.35	N78.55°E	5898.52	-2.92	106.30	106.34	0.0
6000.0	1.34	N76.80°E	5998.49	-2.42	108.59	108.62	0.0
6100.0	1.26	N77.87°E	6098.46	-1.92	110.80	110.82	0.1
6200.0	1.22	N77.50°E	6198.44	-1.46	112.92	112.92	0.0
6300.0	1.24	N80.87°E	6298.42	-1.06	115.03	115.02	0.1
6400.0	1.22	N77.46°E	6398.39	-0.65	117.13	117.12	0.1
6500.0	1.25	N76.69°E	6498.37	-0.17	119.23	119.21	0.0
6600.0	1.28	N75.30°E	6598.35	0.36	121.38	121.34	0.0
6700.0	1.31	N75.00°E	6698.32	0.94	123.56	123.51	0.0
6800.0	1.33	N80.30°E	6798.29	1.43	125.81	125.75	0.1
6900.0	1.35	N81.88°E	6898.27	1.79	128.12	128.05	0.0
7000.0	1.38	N86.27°E	6998.24	2.04	130.49	130.42	0.1
7100.0	1.36	N87.22°E	7098.21	2.18	132.87	132.80	0.0
7200.0	1.46	S89.91°E	7198.18	2.23	135.33	135.26	0.1
7300.0	1.43	S89.92°E	7298.15	2.23	137.85	137.78	0.0
7400.0	1.45	S86.14°E	7398.12	2.14	140.36	140.29	0.1
7500.0	1.53	S87.01°E	7498.08	1.99	142.96	142.89	0.1
7600.0	1.39	S82.99°E	7598.05	1.77	145.50	145.43	0.2
7700.0	1.54	S86.58°E	7698.02	1.54	148.04	147.98	0.2
7800.0	1.49	S81.66°E	7797.98	1.27	150.67	150.61	0.1
7900.0	1.29	S79.63°E	7897.95	0.88	153.06	153.01	0.2

SCIENTIFIC DRILLING

Client : TEXACO, INC.
 Well Name : NVAB-WV #26
 Location : LEA COUNTY, NEW MEXICO
 SHL :
 BHL :
 ACTUAL BHL :

Page 3 of 3
 Date 30 NOVEMBER 1996
 Filename : NVABWV26

Height Of WELLSITE Datum Above Field Datum 0.00 ft

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
8000.0	1.41	S79.53°E	7997.92	0.45	155.38	155.34	0.1
8100.0	1.35	S75.45°E	8097.90	-0.07	157.73	157.70	0.1
8200.0	1.60	S82.22°E	8197.86	-0.55	160.25	160.23	0.3
8300.0	1.58	S78.51°E	8297.82	-1.01	162.99	162.97	0.1
8400.0	1.64	S78.81°E	8397.79	-1.57	165.74	165.74	0.1
8500.0	1.52	S77.90°E	8497.75	-2.12	168.44	168.45	0.1
8600.0	1.66	S78.12°E	8597.71	-2.70	171.16	171.18	0.1
8700.0	1.56	S80.36°E	8697.67	-3.22	173.92	173.95	0.1
8800.0	1.28	S82.75°E	8797.64	-3.59	176.37	176.40	0.3
8830.0	1.64	S81.99°E	8827.63	-3.70	177.12	177.16	1.2

Origin of Bottom Hole Closure WELLSITE CENTRE
 Bottom Hole Closure 177 ft S88.80°E

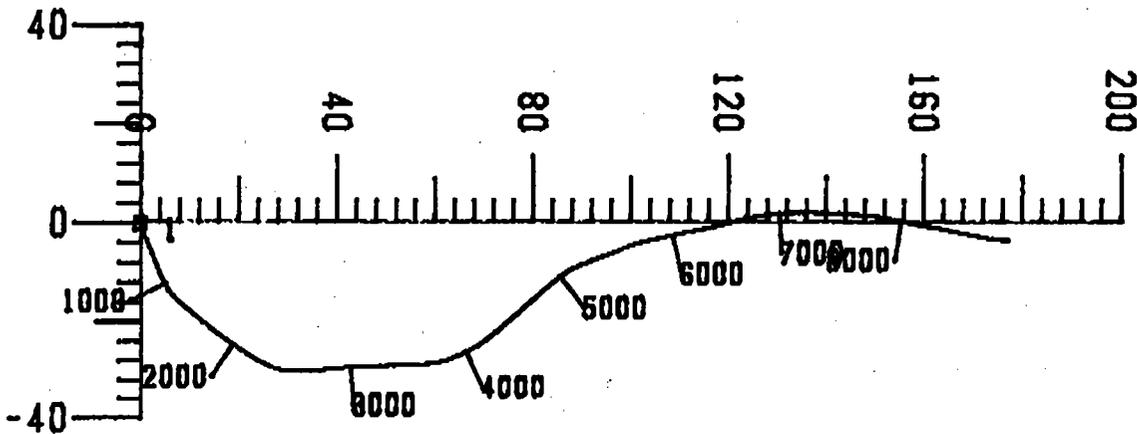


SCIENTIFIC DRILLING
for
TEXACO, INC.
WVAD-WY 928
in
LEA COUNTY, NEW MEXICO



Departure Scale 1 inch = 40 ft

Latitude Scale 1 inch = 40 ft



OGRID Identifier : 22351 TEXACO EXPLORATION & PRODUCTION INC
Prop Identifier : 11123 NORTH VACUUM ABO WEST UNIT
API Well Identifier : 30 25 33637 Well No : 026
Surface Locn - UL : C Sec : 27 Twp : 17S Range : 34E Lot Idn :
Multiple comp (S/M/C) : S TVD Depth (Feet) : MVD Depth (Feet):
Spud Date : P/A Date :

Casing/Linear Record:

S Size Grade Weight Depth(ft) Depth(ft) Hole Size Cement ---- TOC ----
(inches) (lb/ft) Top-Liner Bot-Liner (inches) (Sacks) (feet) Code

E0004: No matching record found. Enter data to create.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 COMMENT PF10 TLOG PF11 PF12

CMD :
OG6C101

ONGARD
C101-APPLICATION FOR PERMIT TO DRILL

12/23/96 14:32:06
OGOMES -EMEO

OGRID Idn : 22351 API Well No: 30 25 33637 APD Status(A/C/P): A
Opr Name, Addr: TEXACO EXPLORATION & PRODUCTION Aprvl/Cncl Date : 10-18-1996
205 EAST BENDER
HOBBS,NM 88240

Prop Idn: 11123 NORTH VACUUM ABO WEST UNIT Well No: 26

	U/L	Sec	Township	Range	Lot	Idn	North/South	East/West
Surface Locn	: C	27	17S	34E			FTG 560 F N	FTG 2080 F W
OCD U/L	: C		API County	: 25				

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): O Cable/Rotary (C/R) : R
Lease typ(F/S/P/N/J/U/I): S Ground Level Elevation : 4042

State Lease No: Multiple Comp (Y/N) : S
Prpsd Depth : 10560 Prpsd Frmtn : ABO

E0009: Enter data to modify record

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07	PF08	PF09 PRINT	PF10 C102	PF11 HISTORY	PF12



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

October 11, 1996

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

Administrative Order DD-153(H)
High Angle/Horizontal

Dear Mr. Howard:

Reference is made to your application dated September 11, 1996 for authorization to initiate a high angle/horizontal directionally drilling project within the in the NW/4 of Section 27, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, Lea County, New Mexico.

The Division Director Finds That:

- (1) The application of Texaco Exploration and Production, Inc. ("Texaco") as operator of the North Vacuum Abo West Unit (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;
- (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 entire W/2 of said Section 27 is within the horizontal limits of the North Vacuum-Abo Pool, said 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;
- (5) Texaco is currently developing the North Vacuum-Abo Pool within the NW/4 of said Section 27 with water injection into its North Vacuum Abo West Unit Well No. 18 (API No. 30-025-23887), located at a standard Abo well location 1980 feet from the North and West lines (Unit F) of said Section 27 and producing from its North Vacuum Abo West Unit Well No. 15 (API No. 30-025-23905), located within a standard 80-acre oil spacing and proration unit comprising the W/2 NW/4 of said Section 27 at a standard oil well location 660 feet from the North and West lines (Unit D) of said Section 27;
- (6) The "project area" proposed by Texaco would consist of an over-sized spacing unit comprising 160 acres (two standard stand-up 80-acre units) underlying the NW/4 of said Section 27;
- (7) It is Texaco's intent to place its North Vacuum Abo West Unit Well No. 26 at a standard North Vacuum-Abo Pool oil well location 560 feet from the North line and 2080 feet from the West line (Unit C) of said Section 27, drill vertically to an approximate depth of 8600 feet, kick-off in a southwesterly direction with a short radius wellbore (57.3 degrees/100 feet), and drill horizontally a lateral distance of approximately 1,800 feet through the Abo formation;
- (8) The applicable drilling window or "producing area" for said wellbore should include that area within the NW/4 of said Section 27 that is no closer than 460 feet to the outer boundary of the subject 160-acre non-standard oil spacing and proration unit that is the NW/4 of said Section 27; and,
- (9) 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 within a non-standard 160-acre oil spacing and proration unit comprising the NW/4 of Section 27, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, North Vacuum Abo West Unit, North Vacuum Abo West Unit Waterflood Project Area, Lea County, New Mexico, by drilling its North Vacuum Abo West Unit Well No. 26 at a standard North Vacuum-Abo Pool surface oil well location 560 feet from the North line and 2080 feet from the West line (Unit C) of said Section 27, drill vertically to an approximate depth of 8600 feet, kick-off in a southwesterly direction with a short radius wellbore (57.3 degrees/100 feet), and drill horizontally a lateral distance of approximately 1,800 feet through the Abo formation;

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) 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.

(3) The "project area" for said horizontal well shall consist of an oversized 160-acre non-standard oil spacing and proration unit for said pool comprising the NW/4 of said Section 27.

(4) The "producing area" for said horizontal wellbore shall include that area within the NW/4 of said Section 27 that is no closer than 460 feet from the outer boundary of said quarter.

(5) 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.

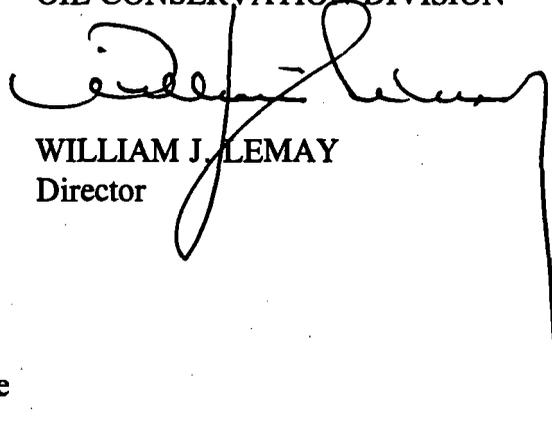
(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

Administrative Order DD-153(H)
Texaco Exploration and Production, Inc.
October 11, 1996
Page 4

(7) 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

SEAL

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

~~DD-TEX. H1~~
DD-TEX. H1

Rec: 9-19-96

Susa: 10-9-96

Released 10-11-96

October 11, 1996

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

Attention: C. Wade Howard

153
Administrative Order DD-***(H)
High Angle/Horizontal

Dear Mr. Howard:

Reference is made to your application dated September 11, 1996 for authorization to initiate a high angle/horizontal directionally drilling project within the in the NW/4 of Section 27, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, Lea County, New Mexico.

The Division Director Finds That:

- (1) The application of Texaco Exploration and Production, Inc. ("Texaco") as operator of the North Vacuum Abo West Unit (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;
- (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 entire W/2 of said Section 27 is within the horizontal limits of the North Vacuum-Abo Pool, said 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;
- (5) Texaco is currently developing the North Vacuum-Abo Pool within the NW/4 of said Section 27 with water injection into its North Vacuum Abo West Unit Well No. 18 (API No. 30-025-23887), located at a standard Abo well location 1980 feet from the North and West lines (Unit F) of said Section 27 and producing from its North Vacuum Abo West Unit Well No. 15 (API No. 30-025-23905), located within a standard 80-acre oil spacing and proration unit comprising the W/2 NW/4 of said Section 27 at a standard oil well location 660 feet from the North and West lines (Unit D) of said Section 27;
- (6) The "project area" proposed by Texaco would consist of an over-sized spacing unit comprising 160 acres (two standard stand-up 80-acre units) underlying the NW/4 of said Section 27;
- (7) It is Texaco's intent to place its North Vacuum Abo West Unit Well No. 26 at a standard North Vacuum-Abo Pool oil well location 560 feet from the North line and 2080 feet from the West line (Unit C) of said Section 27, drill vertically to an approximate depth of 8600 feet, kick-off in a southwesterly direction with a short radius wellbore (57.3 degrees/100 feet), and drill horizontally a lateral distance of approximately 1,800 feet through the Abo formation;
- (8) The applicable drilling window or "producing area" for said wellbore should include that area within the NW/4 of said Section 27 that is no closer than 460 feet to the outer boundary of the subject 160-acre non-standard oil spacing and proration unit that is the NW/4 of said Section 27; and,
- (9) 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 within a non-standard 160-acre oil spacing and proration unit comprising the NW/4 of Section 27, Township 17 South, Range 34 East, NMPM, North Vacuum-Abo Pool, North Vacuum Abo West Unit, North Vacuum Abo

West Unit Waterflood Project Area, Lea County, New Mexico, by drilling its North Vacuum Abo West Unit Well No. 26 at a standard North Vacuum-Abo Pool surface oil well location 560 feet from the North line and 2080 feet from the West line (Unit C) of said Section 27, drill vertically to an approximate depth of 8600 feet, kick-off in a southwesterly direction with a short radius wellbore (57.3 degrees/100 feet), and drill horizontally a lateral distance of approximately 1,800 feet through the Abo formation;

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) 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.

(3) The "project area" for said horizontal well shall consist of an oversized 160-acre non-standard oil spacing and proration unit for said pool comprising the NW/4 of said Section 27.

(4) The "producing area" for said horizontal wellbore shall include that area within the NW/4 of said Section 27 that is no closer than 460 feet from the outer boundary of said quarter.

(5) 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.

(6) 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).

(7) 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

SEAL

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



Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

OIL CONSERVATION DIVISION
P O Box 3109
Midland TX 79702

DD 10/9/96

September 11, 1996

1996 SEP 19 AM 8 52

GOV - STATE AND LOCAL GOVERNMENTS

Directional Drilling - Horizontal
Non-Standard Proration Unit
North Vacuum Abo West Unit Well No. 26
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 111.D and Rule 104.D, is requested to directionally drill a horizontal well in a non-standard eighty-acre proration unit in the Abo formation.

The North Vacuum Abo West Unit is a candidate for a horizontal well due to the heterogeneous nature of the reservoir. Vertical segregation is common, with a productive interval consisting of 4 to 7 (10' to 40' thick) porous zones, which are often subdivided by low porosity lenses. Porosity quality varies laterally from well to well within a single lithologic unit. Additionally, porosity development cross cuts stratigraphic boundaries. Application of this particular version of horizontal technology to this reservoir will allow for drainage from laterally discontinuous lenses which would otherwise not be tapped without dense vertical well spacing. The proposed Northeast - Southwest direction of the horizontal sections are dictated by the current injection patterns on the North Vacuum Abo West Unit and the adjacent North Vacuum Abo Unit which is operated by Mobil. As per our conversation this day, if this well is successful Texaco plans to make this Unit a "Project Area" for horizontal drilling.

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

The "affected" offset operators to this well have been notified of this request (see attached offset operator's list and certified mail receipts). Texaco grants itself a waiver to this request.

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

Form C-102
Revised February 10, 1994

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

Instructions on back
Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

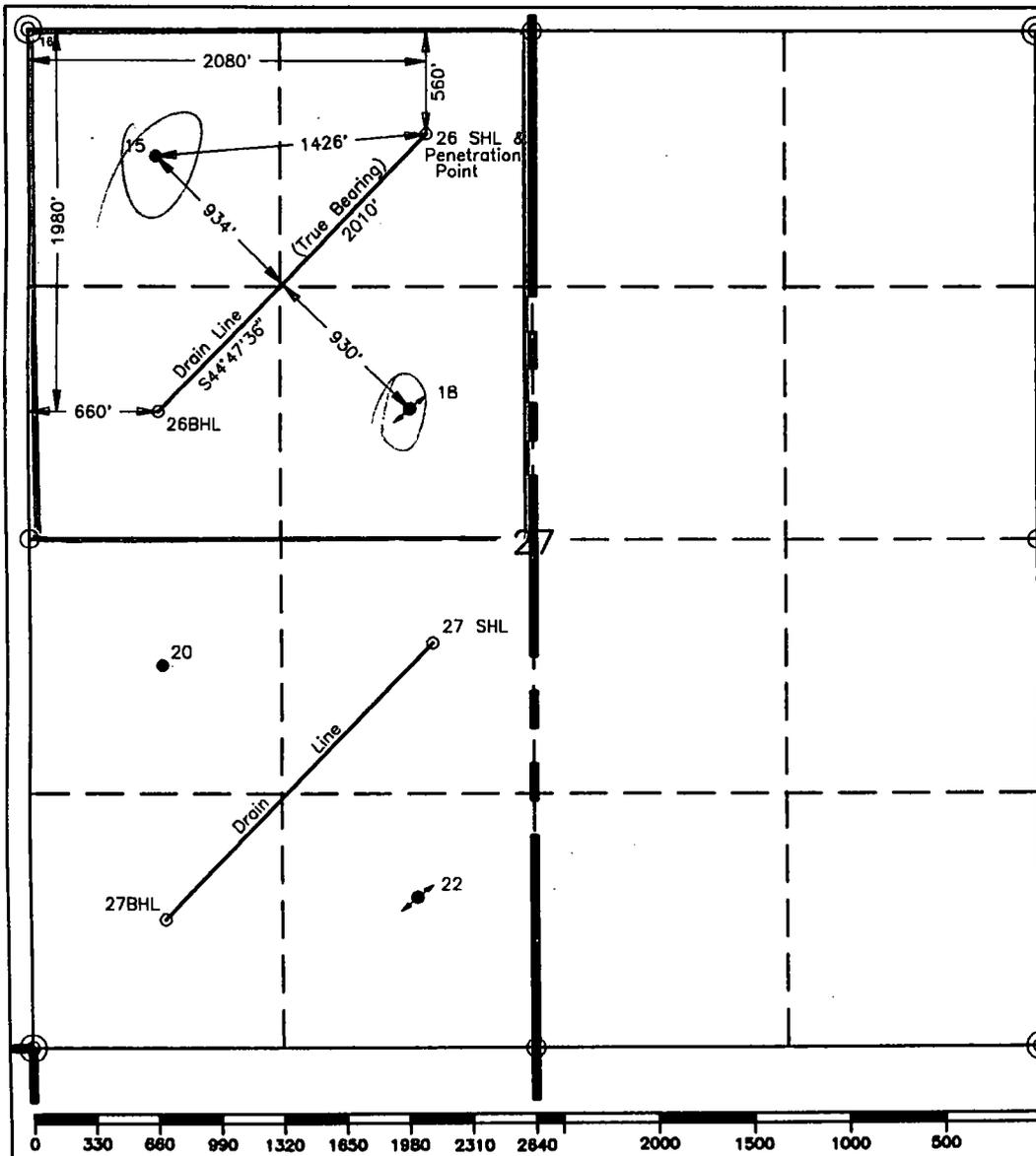
¹ API Number		² Pool Code		³ Pool Name Vacuum Abo, North	
⁴ Property Code 11123		⁵ Property Name North Vacuum Abo West Unit			⁶ Well Number 26
⁷ OGRID No. 22351		⁸ Operator Name TEXACO EXPLORATION & PRODUCTION, INC.			⁹ Elevation 4042'

¹⁰ Surface Location									
UL or lot no. C	Section 27	Township 17-S	Range 34-E	Lot Idn	Feet from the 560'	North/South line North	Feet from the 2080'	East/West line West	County Lea

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. E	Section 27	Township 17-S	Range 34-E	Lot Idn	Feet from the 1980'	North/South line North	Feet from the 660'	East/West line West	County Lea

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

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: **September 10, 1996**

¹⁷ 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: **August 30, 1996**

Signature & Seal of Professional Surveyor: *John S. Piper*

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

September 11, 1996

GOV - STATE AND LOCAL GOVERNMENTS
Directional Drilling - Horizontal
Non-Standard Proration Unit
North Vacuum Abo West Unit Well No. 26
Sec. 27, 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. W. Howard
Engineer's Assistant

CWH:cwh

File

WAIVER APPROVED:

COMPANY: _____

BY: _____

DATE: _____

**OFFSET OPERATOR'S LIST
North Vacuum Abo West Unit Well No. 26
LEA COUNTY, NEW MEXICO**

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

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

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 + PRODUCING
 P.O. BOX 633
 MIDLAND, TX 79702

4a. Article Number
 P 329 313 816

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

7. Date of Delivery SEP 12 1996

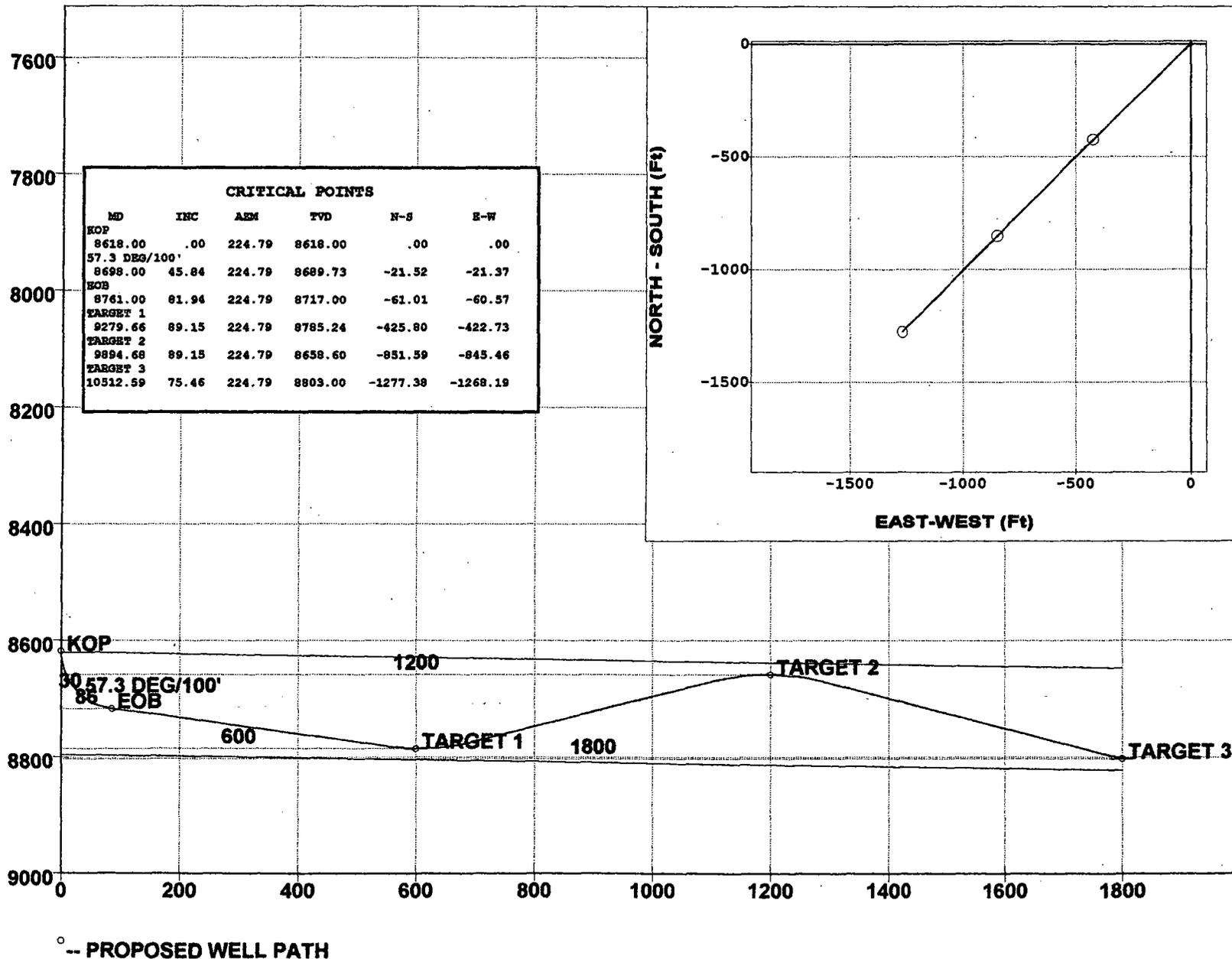
5. Signature (Addressee)

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

6. Signature (Agent)
James H. Keys

Thank you for using Return Receipt Service.

Company: TEXACO E & P, INC.
 Lease/Well: NORTH VACUUM ABO WEST UNIT #26 H
 Location: LEA COUNTY, NEW MEXICO
 File name: C:\SURVEY\NAVU#27.SVY
 Date/Time: Tuesday, September 10, 1996



TRUE VERTICAL DEPTH (Ft)

NORTH - SOUTH (Ft)

EAST-WEST (Ft)

-- PROPOSED WELL PATH

VERTICAL SECTION (Ft) @ 224.79°

Job Number:

Company: TEXACO E & P, INC.

Lease/Well: NORTH VACUUM ABO WEST UNIT #26 H

Location: LEA COUNTY, NEW MEXICO

Rig Name:

State/Country:

Declination:

Grid:

File name: C:\SURVEY\NAVU#26.SVY

Date/Time: Tuesday, September 10, 1996

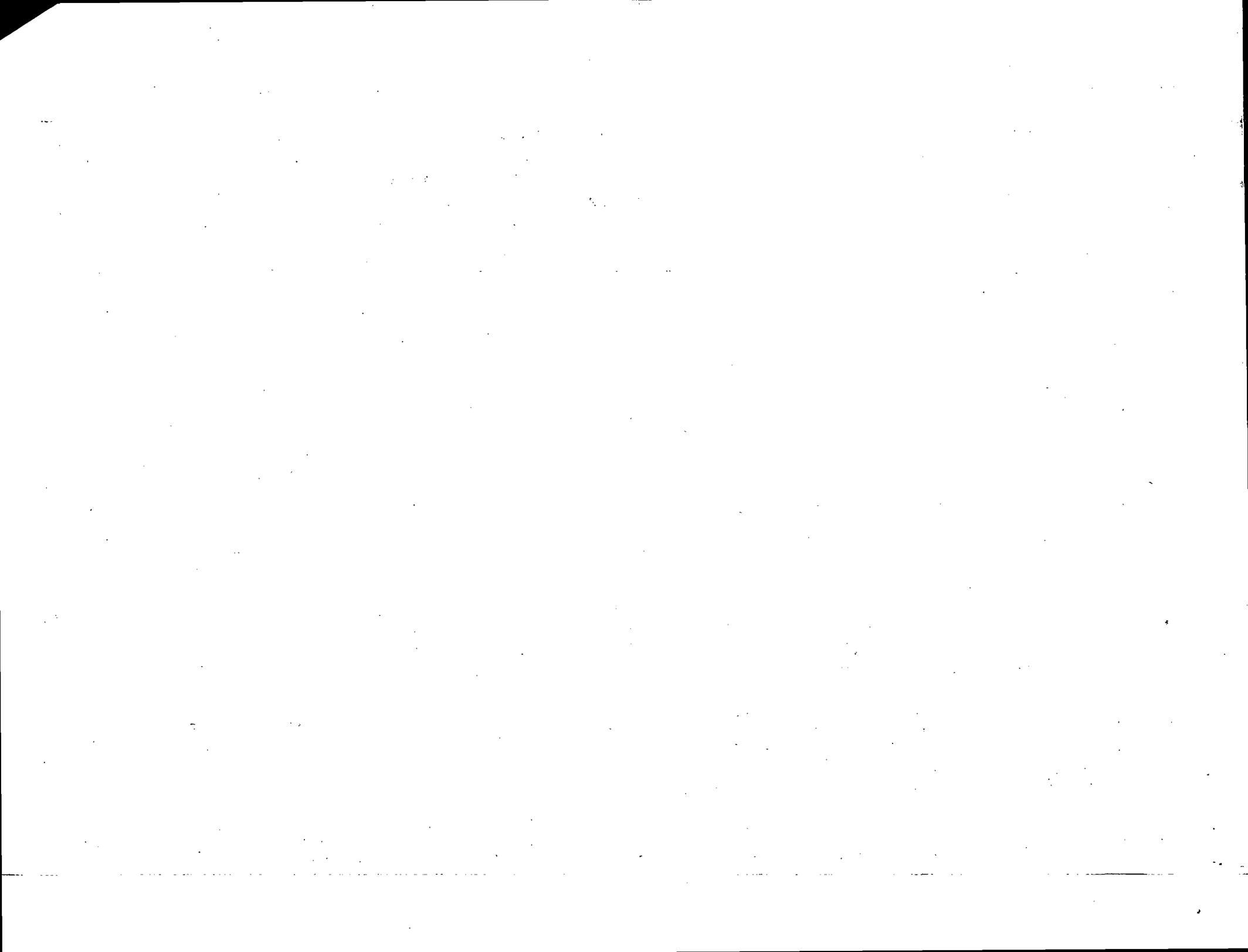
PHOENIX DRILLING SERVICES, INC.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 224.79

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		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
KOP										
8618.00	.00	224.79	8618.00	4560.00	.00	.00	.00	.00	.00	.00
8628.00	5.73	224.79	8627.98	4569.98	-3.35	-3.35	.50	.50	224.79	57.30
8638.00	11.46	224.79	8637.87	4579.87	-1.41	-1.40	1.99	1.99	224.79	57.30
8648.00	17.19	224.79	8647.55	4589.55	-3.17	-3.15	4.47	4.47	224.79	57.30
8658.00	22.92	224.79	8656.94	4598.94	-5.60	-5.56	7.89	7.89	224.79	57.30
8668.00	28.65	224.79	8665.94	4607.94	-8.69	-8.63	12.24	12.24	224.79	57.30
8678.00	34.38	224.79	8674.46	4616.46	-12.40	-12.31	17.47	17.47	224.79	57.30
8688.00	40.11	224.79	8682.42	4624.42	-16.69	-16.57	23.52	23.52	224.79	57.30
57.3 DEG/100'										
8698.00	45.84	224.79	8689.73	4631.73	-21.52	-21.37	30.33	30.33	224.79	57.30
8708.00	51.57	224.79	8696.33	4638.33	-26.85	-26.66	37.84	37.84	224.79	57.30
8718.00	57.30	224.79	8702.14	4644.14	-32.62	-32.39	45.97	45.97	224.79	57.30
8728.00	63.03	224.79	8707.12	4649.12	-38.78	-38.50	54.64	54.64	224.79	57.30
8738.00	68.76	224.79	8711.20	4653.20	-45.25	-44.93	63.77	63.77	224.79	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		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
8748.00	74.49	224.79	8714.35	4656.35	-51.99	-51.61	73.25	73.25	224.79	57.30
8758.00	80.22	224.79	8716.54	4658.54	-58.91	-58.48	83.01	83.01	224.79	57.30
EOB										
8761.00	81.94	224.79	8717.00	4659.00	-61.01	-60.57	85.97	85.97	224.79	57.30
8763.51	82.32	224.79	8717.35	4659.35	-62.77	-62.32	88.46	88.46	224.79	15.00
8764.13	82.22	224.79	8717.43	4659.43	-63.21	-62.75	89.07	89.07	224.79	15.00
8764.56	82.16	224.79	8717.49	4659.49	-63.52	-63.06	89.50	89.50	224.79	15.00
8764.81	82.12	224.79	8717.52	4659.52	-63.69	-63.23	89.74	89.74	224.79	15.00
8864.81	82.12	224.79	8731.23	4673.23	-133.98	-133.02	188.80	188.80	224.79	.00
8964.81	82.12	224.79	8744.94	4686.94	-204.28	-202.81	287.86	287.86	224.79	.00
9064.81	82.12	224.79	8758.65	4700.65	-274.57	-272.60	386.91	386.91	224.79	.00
9164.81	82.12	224.79	8772.36	4714.36	-344.87	-342.39	485.97	485.97	224.79	.00
9232.71	82.11	224.79	8781.67	4723.67	-392.60	-389.78	553.23	553.23	224.79	.01
9239.66	83.15	224.79	8782.56	4724.56	-397.49	-394.63	560.12	560.12	224.79	15.00
9249.66	84.65	224.79	8783.62	4725.62	-404.55	-401.63	570.06	570.06	224.79	15.00
9259.66	86.15	224.79	8784.42	4726.42	-411.62	-408.66	580.03	580.03	224.79	15.00
9269.66	87.65	224.79	8784.96	4726.96	-418.71	-415.69	590.01	590.01	224.79	15.00
TARGET 1										
9279.66	89.15	224.79	8785.24	4727.24	-425.80	-422.73	600.01	600.01	224.79	15.00
9289.66	90.65	224.79	8785.26	4727.26	-432.90	-429.78	610.01	610.01	224.79	15.00
9299.66	92.15	224.79	8785.01	4727.01	-439.99	-436.82	620.00	620.00	224.79	15.00
9309.66	93.65	224.79	8784.51	4726.51	-447.08	-443.86	629.99	629.99	224.79	15.00
9319.66	95.15	224.79	8783.74	4725.74	-454.15	-450.88	639.96	639.96	224.79	15.00
9329.66	96.65	224.79	8782.71	4724.71	-461.21	-457.89	649.91	649.91	224.79	15.00
9339.66	98.15	224.79	8781.42	4723.42	-468.25	-464.88	659.82	659.82	224.79	15.00
9349.66	99.65	224.79	8779.87	4721.87	-475.26	-471.84	669.70	669.70	224.79	15.00
9359.66	101.15	224.79	8778.07	4720.07	-482.24	-478.77	679.54	679.54	224.79	15.00
9369.66	102.65	224.79	8776.00	4718.00	-489.18	-485.66	689.32	689.32	224.79	15.00
9379.66	104.15	224.79	8773.69	4715.69	-496.09	-492.51	699.05	699.05	224.79	15.00
9381.60	104.45	224.79	8773.21	4715.21	-497.42	-493.84	700.94	700.94	224.79	15.00
9481.60	104.45	224.79	8748.26	4690.26	-566.15	-562.07	797.77	797.77	224.79	.00
9581.60	104.45	224.79	8723.31	4665.31	-634.87	-630.30	894.61	894.61	224.79	.00
9681.60	104.45	224.79	8698.36	4640.36	-703.59	-698.52	991.45	991.45	224.79	.00
9781.60	104.45	224.79	8673.41	4615.41	-772.31	-766.75	1088.29	1088.29	224.79	.00
9792.74	104.45	224.79	8670.64	4612.64	-779.96	-774.35	1099.07	1099.07	224.79	.00
9792.74	104.45	224.79	8670.63	4612.63	-779.97	-774.35	1099.08	1099.08	224.79	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		Dogleg Severity Deg/100
								Distance FT	Direction Deg	
9794.68	104.15	224.79	8670.16	4612.16	-781.30	-775.68	1100.96	1100.96	224.79	15.00
9804.68	102.65	224.79	8667.84	4609.84	-788.20	-782.53	1110.68	1110.68	224.79	15.00
9814.68	101.15	224.79	8665.77	4607.77	-795.15	-789.42	1120.47	1120.47	224.79	15.00
9824.68	99.65	224.79	8663.97	4605.97	-802.13	-796.35	1130.30	1130.30	224.79	15.00
9834.68	98.15	224.79	8662.42	4604.42	-809.14	-803.31	1140.18	1140.18	224.79	15.00
9844.68	96.65	224.79	8661.13	4603.13	-816.18	-810.30	1150.10	1150.10	224.79	15.00
9854.68	95.15	224.79	8660.10	4602.10	-823.23	-817.31	1160.05	1160.05	224.79	15.00
9864.68	93.65	224.79	8659.33	4601.33	-830.31	-824.33	1170.02	1170.02	224.79	15.00
9874.68	92.15	224.79	8658.83	4600.83	-837.40	-831.37	1180.00	1180.00	224.79	15.00
9884.68	90.65	224.79	8658.58	4600.58	-844.49	-838.41	1190.00	1190.00	224.79	15.00
TARGET 2										
9894.68	89.15	224.79	8658.60	4600.60	-851.59	-845.46	1200.00	1200.00	224.79	15.00
9904.68	87.65	224.79	8658.88	4600.88	-858.68	-852.50	1210.00	1210.00	224.79	15.00
9914.68	86.15	224.79	8659.42	4601.42	-865.77	-859.53	1219.98	1219.98	224.79	15.00
9924.68	84.65	224.79	8660.22	4602.22	-872.84	-866.56	1229.95	1229.95	224.79	15.00
9934.68	83.15	224.79	8661.28	4603.28	-879.90	-873.56	1239.89	1239.89	224.79	15.00
9944.68	81.65	224.79	8662.60	4604.60	-886.93	-880.55	1249.80	1249.80	224.79	15.00
9954.68	80.15	224.79	8664.18	4606.18	-893.94	-887.50	1259.68	1259.68	224.79	15.00
9964.68	78.65	224.79	8666.02	4608.02	-900.91	-894.43	1269.51	1269.51	224.79	15.00
9974.68	77.15	224.79	8668.12	4610.12	-907.85	-901.32	1279.28	1279.28	224.79	15.00
9984.68	75.65	224.79	8670.47	4612.47	-914.75	-908.16	1289.00	1289.00	224.79	15.00
9985.98	75.46	224.79	8670.79	4612.79	-915.64	-909.05	1290.26	1290.26	224.79	15.00
10085.98	75.46	224.79	8695.90	4637.90	-984.34	-977.25	1387.06	1387.06	224.79	.00
10185.98	75.46	224.79	8721.00	4663.00	-1053.03	-1045.45	1483.86	1483.86	224.79	.00
10285.98	75.46	224.79	8746.11	4688.11	-1121.72	-1113.65	1580.66	1580.66	224.79	.00
10385.98	75.46	224.79	8771.22	4713.22	-1190.42	-1181.85	1677.45	1677.45	224.79	.00
10485.98	75.46	224.79	8796.32	4738.32	-1259.11	-1250.04	1774.25	1774.25	224.79	.00
TARGET 3										
10512.59	75.46	224.79	8803.00	4745.00	-1277.38	-1268.19	1800.00	1800.00	224.79	.00

