

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II  
P.O. Box Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**

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

Form C-10  
Revised February 10, 1999  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 6 Copie  
Fee Lease - 5 Copie

AMENDED REPORT

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

<sup>1</sup> Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		<sup>2</sup> OGRID Number 022351
		<sup>3</sup> API Number 30-015-29284
<sup>4</sup> Property Code 11032	<sup>5</sup> Property Name NEW MEXICO DF STATE COM	<sup>6</sup> Well No. 3

<sup>7</sup> Surface Location

UI or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UI or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		1672	NORTH	1879	EAST	EDDY

<sup>9</sup> Proposed Pool 1

<sup>10</sup> Proposed Pool 2

Indian Basin; Upper Penn.

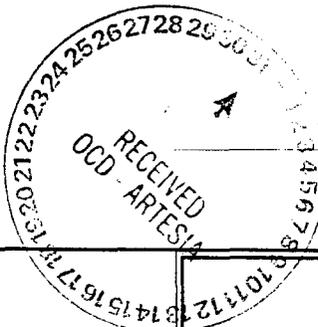
<sup>11</sup> Work Type Code E	<sup>12</sup> WellType Code G	<sup>13</sup> Rotary or C.T. ROTARY	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 4059' GR
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 6924 TVD	<sup>18</sup> Formation CISCO	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 5/10/00

<sup>21</sup> Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	9 5/8"	24#	1500'	650 SX, CIRC 15	SURFACE
7 7/8"	7"	26#	6920'	1050 SX, CIRC 201	SURFACE
				DV TOOL @ 3600'	

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

TEXACO INTENDS TO DRILL A HORIZONTAL RE-ENTRY USING A CONVENTIONAL RIG. THE OVERVIEW AND INTENDED PROCEDURE IS ATTACHED.



<sup>23</sup> I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *J. Denise Leake*  
Printed Name: J. Denise Leake  
Title: Engineering Assistant  
Date: 3/20/00  
Telephone: 397-0405

OIL CONSERVATION DIVISION

Approved By: *Jim W. BGA*  
Title: **F SUPERVISOR, DISTRICT II**  
Approval Date: 4-6-00  
Expiration Date: 4-6-01  
Conditions of Approval:  
Attached

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 AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-29284	<sup>2</sup> Pool Code 79040	<sup>3</sup> Pool Name INDIAN BASIN UPPER PENN
<sup>4</sup> Property Code 11032	<sup>5</sup> Property Name NEW MEXICO DF STATE COM	
<sup>7</sup> OGRID Number 022351	<sup>8</sup> Operator Name TEXACO EXPLORATION & PRODUCTION INC.	<sup>6</sup> Well No. 3  <sup>9</sup> Elevation 4059' GR

<sup>10</sup> Surface Location

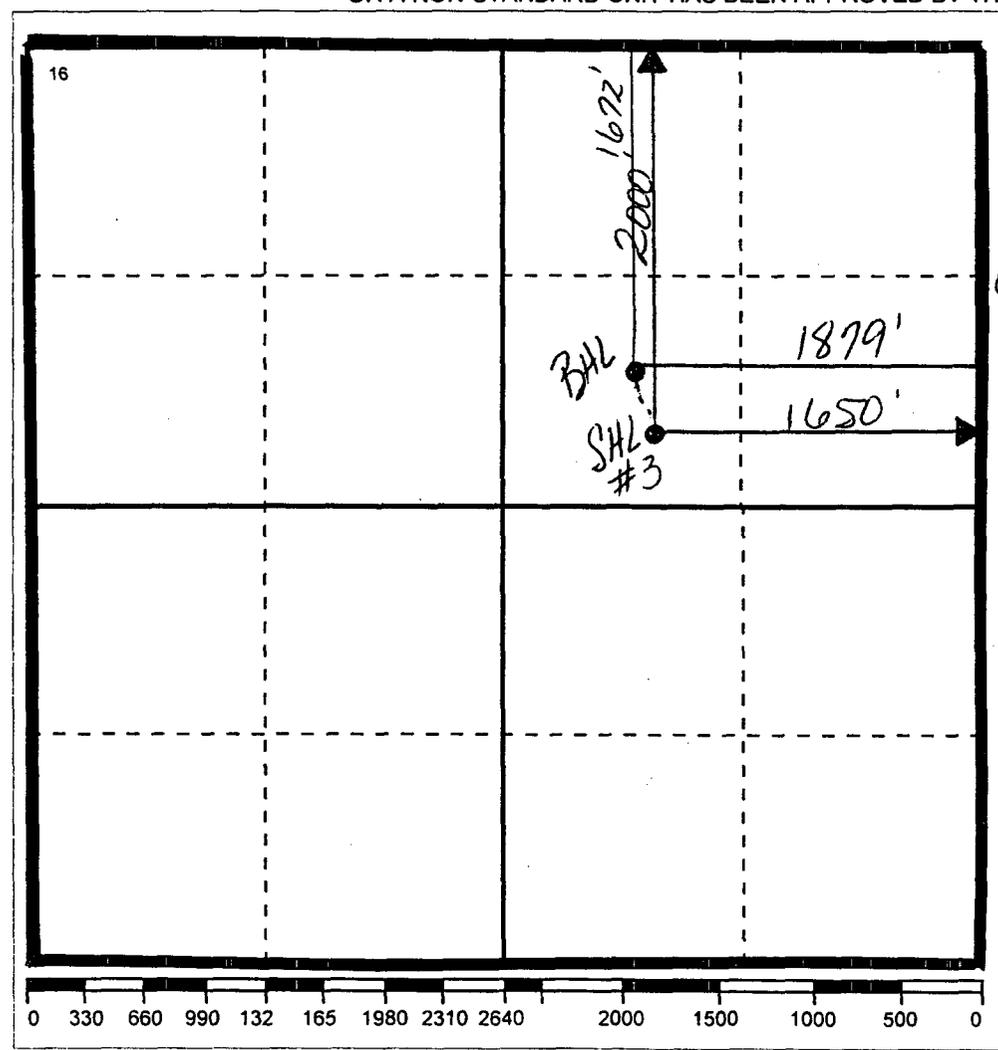
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

<sup>11</sup> 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
G	32	21-S	23-E		1672	NORTH	1879	EAST	EDDY

<sup>12</sup> Dedicated Acre 640	<sup>13</sup> Joint or Infill No	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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



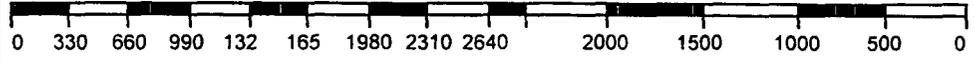
<sup>17</sup> OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature *J. Denise Leake*  
Printed Name  
**J. Denise Leake**  
Positio  
**Engineering Assistant**  
Date  
**3/20/00**

<sup>18</sup> 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  
Signature & Seal of  
Professional Surveyor

Certificate No.



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**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-29284	<sup>2</sup> Pool Code 79040	<sup>3</sup> Pool Name INDIAN BASIN UPPER PENN
<sup>4</sup> Property Code 11032	<sup>5</sup> Property Name NEW MEXICO DF STATE COM	
<sup>7</sup> OGRID Number 022351	<sup>8</sup> Operator Name TEXACO EXPLORATION & PRODUCTION INC.	<sup>6</sup> Well No. 3
		<sup>9</sup> Elevation 4059' GR

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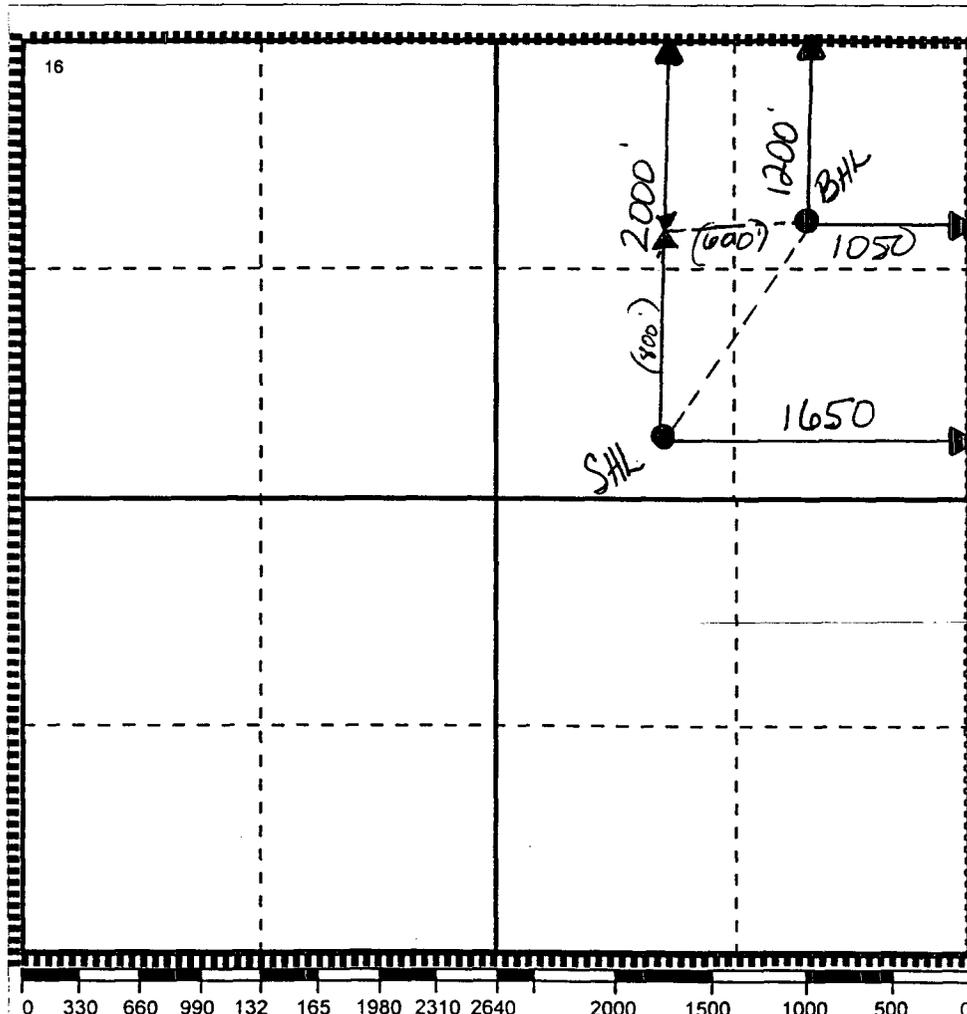
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

<sup>11</sup> 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
A	32	21-S	23-E		1200	NORTH	1050	EAST	EDDY

<sup>12</sup> Dedicated Acre 640	<sup>13</sup> Joint or Infill No	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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<sup>17</sup> OPERATOR CERTIFICATION

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

Signature *J. Denise Leake*

Printed Name  
**J. Denise Leake**

Positio  
**Engineering Assistant**

Date  
**12/20/99**

<sup>18</sup> 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

Signature & Seal of  
Professional Surveyor

Certificate No.

## OVERVIEW

The New Mexico "DF" State Com #3 well was drilled in late 1996 as a test of the Cisco Dolomite formation. After setting casing, 55 feet of open hole was drilled with air at a rate of 25 feet per hour. The zone potential for 0 BOPD, 0 BWPD and 3134 MCFD. It is proposed to drill a single  $\pm 400'$  (VS) horizontal lateral in this formation employing nitrogen to drill this well as under balanced or close to balance as possible (BHP projected at less than 500 psi). The basic well plan is as follows:

- a) Kill well. TOOH with tubing and packer. Run a bit and scraper to  $+6900'$  (bottom of 7" at 6920'). TOOH. TIH with a CIBP and set at  $+6854'$  (top). TOOH.
- b) TIH with a 3 degree bottom set whipstock (top of window  $+6839'$ , bottom of window  $+6846'$ ) and set at a 325 degree azimuth.
- c) Drill a short radius curve using a 4-3/4" bit to a measured depth of  $+6950'$  (TVD  $+6924'$ ). The final angle will be 72.51 degrees from vertical. After milling through the casing, change hole over to nitrogen.
- d) Drill  $+359'$ . End point will be 7309' MD, 7032' TVD, 328' north, 229' west, 325 degree azimuth.
- e) Depending on productivity, a coiled tubing acid wash may be needed. Place well on production.

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

## PROPOSED WORK

### PRODUCTION HOLE:

1. Kill well. TOOH with the tubing and packer. TIH with a bit and scraper to 6900' (bottom of 7" at 6920'). TOOH. TIH with a CIBP and set at +6854' (top of CIBP). TIH and circulate the hole with fresh water and pressure test the casing and CIBP to 1000 psi. TOOH. TIH with a Smith 3 degree bottom set retrievable whipstock, starting mill, orienting sub and drill pipe. Stop at a point 5-10' above the CIBP, reciprocate pipe and rig up a wireline to run the gyro. Take a gyro reading and determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction. Reciprocate and lower the pipe to within one foot of the CIBP and take another gyro reading. Rotate pipe again if needed to achieve the required direction (325 degrees). This step may need to be repeated several times until confident the whipstock is oriented in the correct direction.
2. Lower drill pipe to set the whipstock. The weight indicator will jump indicating lower plunger shear pin is sheared (3600 #'s) and the whipstock is set. Continue setting down to shear the starting mill bolt (20,000#'s). The weight indicator will jump again indicating the bolt is sheared. Commence milling operations.
3. Pick up the power swivel and begin circulating. Pick up drill pipe until starting mill has cleared the whipstock and start rotation. Lower the drill pipe slowly until the torque gauge suggest the starting mill is contacting the casing. Adjust weight and speed until satisfied with the penetration rate. Mill to a predetermined depth that will assure the setting lug is completely removed and a cutout in the casing has been initiated. TOOH.
4. TIH with the bi-mill. Resume milling operations and mill until the complete assembly has cleared the casing. Pick up and lower the string several times without rotation to assure a good clean window has been obtained. Circulate the hole clean. TOOH.
5. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

**HORIZONTAL PRODUCTION HOLE:**

1. Rig up Scientific Drilling. Adjust plan to target as necessary. Trip in the hole with Scientific Drilling's curve building assembly. This will be a 4-3/4" insert, 3-3/4" PDM, float sub/orienter combo, 2-flexable monel collars 2-7/8" PH-6 drill pipe below the window and 2-7/8" AOH drill pipe above the window. Change the hole over to nitrogen.
2. Build curve to estimated target depths and angles as follows:

True Vertical Depth .....	6924'
Measured Depth .....	6950'
Final Angle .....	72.51 degrees
Target Azimuth .....	325 degrees
Build Rate .....	70 degrees/100'

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

3. Trip in the hole with Scientific Drilling's lateral assembly. This will be a 4-3/4" insert or PDC bit , 3-3/4" motor, float sub/orienting combo, 2 - flexible monel collars and 2-7/8" PH-6 and AOH drill pipe.
4. Drill +359' of hole per the attached well plan. Keep bottom hole pressures as low as possible. Formation gas contains 0.6 mole percent H<sub>2</sub>S.
5. Continue drilling the horizontal section per the Texaco Engineer recommendations.
6. Clean the hole up. Trip out of the hole with the drilling assembly. RIH and set a Baker packer with a plug in the on-off tool at +6800'. Test packer to 1000 psi.
7. Lay down the drill pipe. Nipple down the BOP stack. Install a manual 3000 psig BOP equipped with blind rams and 2-7/8" pipe rams. Release the rig. Rig down and move out rotary tools.

## **COMPLETION PROCEDURE:**

1. Back drag the location and set pulling unit anchors.
2. Move in and rig up a pulling unit.
3. TIH with tubing and circulate packer fluid into annular area. Tie into packer and swab fluid level down to packer. Pull equalizing prong and plug.
4. Swab well on production.
5. Rig up Dowell and acid stimulate (Foam Mat) with 23,000 gallons of 15% HCl if needed.
6. Flow back immediately. Flow test.

## **POTENTIAL PROBLEMS:**

### **Production Hole:**

- a) No problems anticipated.

### **Horizontal Production hole:**

- a) Loss circulation material and/or other plugging agents are not to be used in this portion of the hole.
- b) The horizontal lateral will be drilled with nitrogen. Care should be taken to minimize bottom hole pressures in order to drill the lateral under balanced (BHP is expected to be less than 500 psi),
- c) Hydrogen sulfide is expected, and H<sub>2</sub>S detection equipment is to be installed.

**MUD PROGRAM:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Remarks</u>
Window	Fresh Water	8.4 ppg	35	Raise visc. with starch and gel
Curve, Horizontal	Nitrogen 1350 SCFM, 8 BPH fluid			BHP to be minimized

Weatherford will supply air equipment and chemicals, International Nitrogen Services will supply N2 units.

**EVALUATION PROGRAM**

**Coring:**

No cores are anticipated.

**Mud Loggers:**

No mud logging is anticipated.

**Horizontal Hole Logs:**

No logs are anticipated.

**CASING PROPERTIES**

<u>PIPE</u>	<u>DEPTH</u>	<u>BURST</u>		<u>COLLAPSE</u>		<u>ORIG. TEST</u>
		<u>Rated (75%)</u>	<u>Rated (75%)</u>	<u>Rated (75%)</u>	<u>Rated (75%)</u>	<u>PRESSURE</u>
9-5/8", 36#/ft, WC50	0'-1500'	3200	2400	1930	1447	1000
7", 26#/ft, S-95	0'-6920'	8600	6450	7800	5850	2500

# Scientific Drilling Inc.

## Planning Report

Company: Texaco E & P, Inc.	Date: 02/28/2000	Time: 10:54:22	Page: 1
Field: Indian Basin Penn	Co-ordinate(NE) Reference: SITE, Eddy County, New Mexico, True North		
Site: Eddy County, New Mexico	Vertical (TYD) Reference: SITE 0.0 above Mean Sea Level		
Well: New Mexico "DF" State Com #3	Section (VS) Reference: SITE (0.0E, 0.0N, 325.0Az)		
Wellpath: Lateral Air	Plan: Plan #1		

Field: Indian Basin Penn

Map System: US State Plane Coordinate System 1927  
 Ellipsoid: Clarke - 1866  
 Sys Datum: Mean Sea Level

Map Zone: New Mexico, Central Zone  
 North Reference: True  
 Geomagnetic Model: igrf2000

Site: Eddy County, New Mexico

Site Position: From: Local Only  
 Position Uncertainty: 0.0 ft  
 Water Depth: 0.0 ft

Northing: m  
 Easting: m

Latitude: m  
 Longitude: m  
 Magnetic Declination: 0.00 deg  
 Grid Convergence: deg

Well: New Mexico "DF" State Com #3

Well Position: +N/-S 0.0 ft  
 From Slot: +E/-W 0.0 ft  
 Position Uncertainty: 0.0 ft

Northing: m  
 Easting: m

Latitude: m  
 Longitude: m

Wellpath: Lateral Air

Vertical Section: +N/-S 0.0 ft  
 From: Site +E/-W 0.0 ft  
 Measured Depth Reference: SITE 0.0 ft

Drilled From: Surface  
 Tie-on Depth: ft  
 V.Section Direction: 325.00 deg

Above System Datum: Mean Sea Level

Plan: Plan #1  
 Date Composed: 10/06/1999  
 Version: 1

Principal: Yes  
 Locked: No

**Plan Section Information**

MD	Incl	Azim	TYD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
6200.0	0.00	325.00	6200.0	0.0	0.0	0.00	0.00	0.00	0.00	
6846.0	0.00	325.00	6846.0	0.0	0.0	0.00	0.00	0.00	325.00	
6949.6	72.51	325.00	6924.1	46.9	-32.8	70.00	70.00	0.00	325.00	
6949.8	72.51	325.00	6924.1	47.1	-33.0	0.00	0.00	0.00	0.00	
7308.9	72.51	325.00	7032.0	327.7	-229.4	0.00	0.00	0.00	0.00	DF #3 toe

**Section 1 : Start Hold**

MD	Incl	Azim	TYD	+N/-S	+E/-W	VS	DLS	Build	Turn	TFO
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg
6200.0	0.00	325.00	6200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6300.0	0.00	325.00	6300.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6400.0	0.00	325.00	6400.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6500.0	0.00	325.00	6500.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6600.0	0.00	325.00	6600.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6700.0	0.00	325.00	6700.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6800.0	0.00	325.00	6800.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00
6846.0	0.00	325.00	6846.0	0.0	0.0	0.0	0.00	0.00	0.00	325.00

**Section 2 : Start Build 70.00**

MD	Incl	Azim	TYD	+N/-S	+E/-W	VS	DLS	Build	Turn	TFO
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg
6850.0	2.80	325.00	6850.0	0.1	-0.1	0.1	70.00	70.00	0.00	0.00
6855.0	6.30	325.00	6855.0	0.4	-0.3	0.5	70.00	70.00	0.00	0.00
6860.0	9.80	325.00	6859.9	1.0	-0.7	1.2	70.00	70.00	0.00	0.00
6865.0	13.30	325.00	6864.8	1.8	-1.3	2.2	70.00	70.00	0.00	0.00
6870.0	16.80	325.00	6869.7	2.9	-2.0	3.5	70.00	70.00	0.00	0.00
6875.0	20.30	325.00	6874.4	4.2	-2.9	5.1	70.00	70.00	0.00	0.00
6880.0	23.80	325.00	6879.0	5.7	-4.0	7.0	70.00	70.00	0.00	0.00
6885.0	27.30	325.00	6883.5	7.5	-5.2	9.1	70.00	70.00	0.00	0.00
6890.0	30.80	325.00	6887.9	9.5	-6.6	11.5	70.00	70.00	0.00	0.00

# Scientific Drilling Inc.

## Planning Report

<b>Company:</b> Texaco E & P, Inc. <b>Field:</b> Indian Basin Penn <b>Site:</b> Eddy County, New Mexico <b>Well:</b> New Mexico DF- State Com #3 <b>Wellpath:</b> Lateral Air	<b>Date:</b> 02/28/2000 <b>Time:</b> 10:54:22 <b>Page:</b> 2 <b>Co-ordinate(N/E) Reference:</b> Site: Eddy County, New Mexico, True Nort <b>Vertical (TVD) Reference:</b> SITE 0.0 above Mean Sea Level <b>Section (VS) Reference:</b> Site: (0.0E, 0.0N, 325.0Azi) <b>Plan:</b> Plan #1
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**Section 2 : Start Build 70.00**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6895.0	34.30	325.00	6892.1	11.7	-8.2	14.2	70.00	70.00	0.00	0.00
6900.0	37.80	325.00	6896.2	14.1	-9.9	17.2	70.00	70.00	0.00	0.00
6905.0	41.30	325.00	6900.0	16.7	-11.7	20.4	70.00	70.00	0.00	0.00
6910.0	44.80	325.00	6903.7	19.5	-13.6	23.8	70.00	70.00	0.00	0.00
6915.0	48.30	325.00	6907.1	22.4	-15.7	27.4	70.00	70.00	0.00	0.00
6920.0	51.80	325.00	6910.3	25.6	-17.9	31.2	70.00	70.00	0.00	0.00
6925.0	55.30	325.00	6913.3	28.9	-20.2	35.3	70.00	70.00	0.00	0.00
6930.0	58.80	325.00	6916.0	32.3	-22.6	39.5	70.00	70.00	0.00	0.00
6935.0	62.30	325.00	6918.5	35.9	-25.1	43.8	70.00	70.00	0.00	0.00
6940.0	65.80	325.00	6920.7	39.6	-27.7	48.3	70.00	70.00	0.00	0.00
6945.0	69.30	325.00	6922.6	43.3	-30.4	52.9	70.00	70.00	0.00	0.00
6949.6	72.51	325.00	6924.1	46.9	-32.8	57.3	70.00	70.00	0.00	0.00

**Section 3 : Start Hold**

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6949.8	72.51	325.00	6924.1	47.1	-33.0	57.5	0.00	0.00	0.00	0.00

**Section 4 : Start Hold**

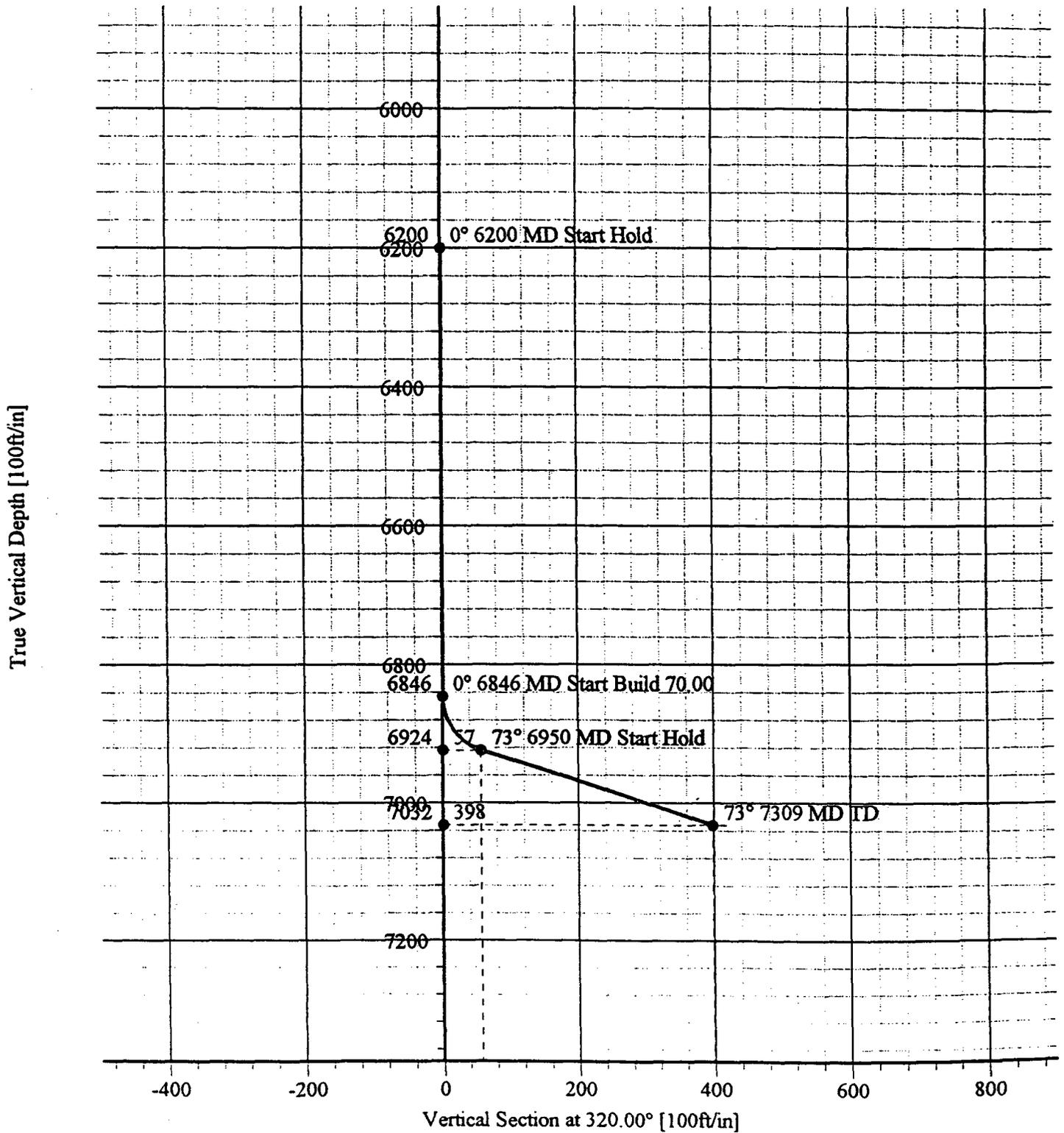
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
7000.0	72.51	325.00	6939.2	86.3	-60.4	105.3	0.00	0.00	0.00	0.00
7100.0	72.51	325.00	6969.3	164.4	-115.1	200.7	0.00	0.00	0.00	0.00
7200.0	72.51	325.00	6999.3	242.5	-169.8	296.1	0.00	0.00	0.00	0.00
7308.9	72.51	325.00	7032.0	327.7	-229.4	400.0	0.00	0.00	0.00	0.00



Scientific  
Drilling

Texaco E & P, Inc.

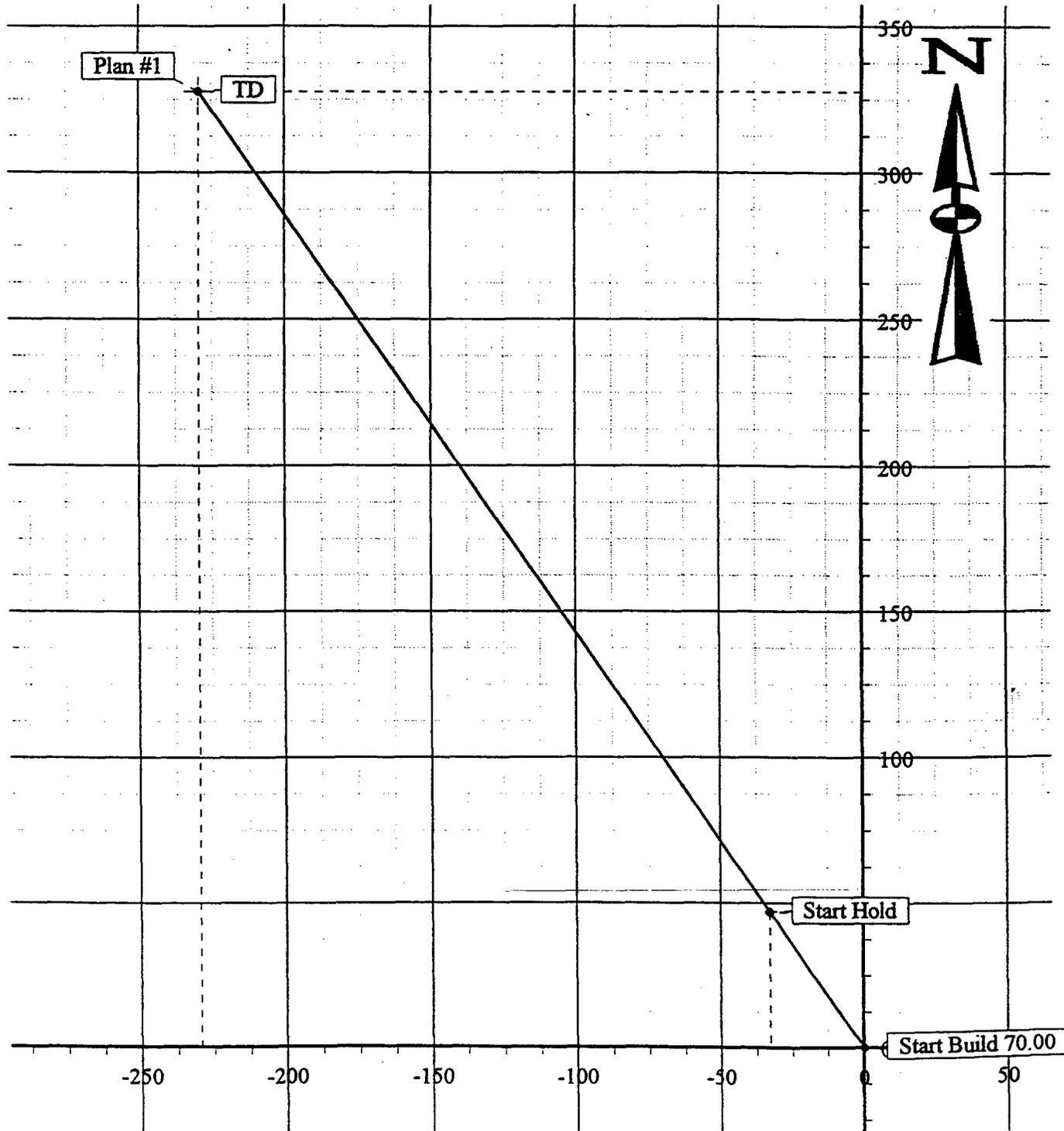
Field: Indian Basin Penn  
Site: Eddy County, New Mexico  
Well: New Mexico "DF" State Com #3  
Wellpath: Lateral Air  
Plan: Plan #1





Scientific  
Drilling

Field: Indian Basin Penn  
Site: Eddy County, New Mexico  
Well: New Mexico "DF" State Com #3  
Wellpath: Lateral Air  
Plan: Plan #1



South(-)/North(+) [50ft/in]

West(-)/East(+) [50ft/in]

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-10  
Revised February 10, 1999

**OIL CONSERVATION DIVISION**

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

Instructions on back  
Submit to Appropriate District Office  
State Lease - 6 Copie  
Fee Lease - 5 Copie

AMENDED REPORT

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

<sup>1</sup> Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		<sup>2</sup> OGRID Number 022351
		<sup>3</sup> API Number 30-015-29284
<sup>4</sup> Property Code 11032	<sup>5</sup> Property Name NEW MEXICO DF STATE COM	<sup>6</sup> Well No. 3

<sup>7</sup> Surface Location

Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

<sup>8</sup> Proposed 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
A	32	21-S	23-E		1200	NORTH	1050	EAST	EDDY

<sup>9</sup> Proposed Pool 1  
CISCO

<sup>10</sup> Proposed Pool 2

<sup>11</sup> Work Type Code P	<sup>12</sup> WellType Code G	<sup>13</sup> Rotary or C.T. ROTARY	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 4059' GR
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 6980'TVD	<sup>18</sup> Formation CISCO	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 1/10/00

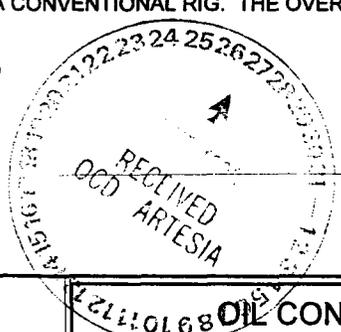
<sup>21</sup> Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	9 5/8"	24#	1500'	650 SX, CIRC 15	SURFACE
7 7/8"	7"	26#	6920'	1050 SX, CIRC 201	SURFACE
				DV TOOL @ 3600'	

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

TEXACO INTENDS TO DRILL A HORIZONTAL RE-ENTRY USING A CONVENTIONAL RIG. THE OVERVIEW AND INTENDED PROCEDURE IS ATTACHED. NSL needed to produce B60

NSL #



<sup>23</sup> I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		<b>OIL CONSERVATION DIVISION</b>	
Signature <i>J. Denise Leake</i>	Printed Name J. Denise Leake	Approved By: <i>Jim W. Seem</i> B60	Title: <i>District Supervisor</i>
Title Engineering Assistant	Date 12/20/99	Approval Date: 1-3-00	Expiration Date: 1-3-01
Telephone 397-0405	Conditions of Approval: Attached <input type="checkbox"/> Drill only B60		

## OVERVIEW

The New Mexico "DF" State Com #3 well was drilled in late 1996 as a test of the Cisco Dolomite formation. After setting casing, 55 feet of open hole was drilled with air at a rate of 25 feet per hour. The zone potential for 0 BOPD, 0 BWPD and 3134 MCFD. It is proposed to drill a single  $\pm 1000'$  (VS) horizontal lateral in this formation employing air to drill this well as under balanced or close to balance as possible (BHP projected at less than 500 psi). The basic well plan is as follows:

- a) Kill well. TOOH with tubing and packer. Run a bit and scraper to  $\pm 6900'$  (bottom of 7" at 6920'). TOOH. TIH with a CIBP and set at  $\pm 6811'$ . TOOH.
- b) TIH with a 3 degree bottom set whipstock (top of window  $\pm 6843'$ , bottom of window  $\pm 6850'$ ) and set at a 36.9 degree azimuth.
- c) Drill a short radius curve using a 4-3/4" bit to a measured depth of  $\pm 7052'$  (TVD  $\pm 6980'$ ). The final angle will be 88.7 degrees from vertical.
- d) Change the hole over to air. Drill  $\pm 873'$ . End point will be 7925' MD, 7000' TVD, 800' north, 600' east, 36.9 degree azimuth.
- e) Depending on productivity, a coiled tubing acid wash may be needed. Place well on production.

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

## PROPOSED WORK

### PRODUCTION HOLE:

1. Kill well. TOOH with the tubing and packer. TIH with a bit and scraper to 6900' (bottom of 7" at 6920'). TOOH. TIH with a CIBP and set at  $\pm 6811'$ . TIH and circulate the hole with fresh water and pressure test the casing and CIBP to 1000 psi. TOOH. TIH with a Smith 3 degree bottom set retrievable whipstock, starting mill, orienting sub and drill pipe. Stop at a point 5-10' above the CIBP, reciprocate pipe and rig up a wireline to run the gyro. Take a gyro reading and determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction. Reciprocate and lower the pipe to within one foot of the CIBP and take another gyro reading. Rotate pipe again if needed to achieve the required direction (36.9 degrees). This step may need to be repeated several times until confident the whipstock is oriented in the correct direction.
2. Lower drill pipe to set the whipstock. The weight indicator will jump indicating lower plunger shear pin is sheared (3600 #'s) and the whipstock is set. Continue setting down to shear the starting mill bolt (20,000#'s). The weight indicator will jump again indicating the bolt is sheared. Commence milling operations.
3. Pick up the power swivel and begin circulating. Pick up drill pipe until starting mill has cleared the whipstock and start rotation. Lower the drill pipe slowly until the torque gauge suggest the starting mill is contacting the casing. Adjust weight and speed until satisfied with the penetration rate. Mill to a predetermined depth that will assure the setting lug is completely removed and a cutout in the casing has been initiated. TOOH.
4. TIH with the bi-mill. Resume milling operations and mill until the complete assembly has cleared the casing. Pick up and lower the string several times without rotation to assure a good clean window has been obtained. Circulate the hole clean. TOOH.
5. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

**HORIZONTAL PRODUCTION HOLE:**

1. Rig up Scientific Drilling. Adjust plan to target as necessary. Trip in the hole with Scientific Drilling's curve building assembly. This will be a 4-3/4" insert, 3-3/4" PDM, float sub/orienter combo, 2-flexable monel collars and 2-7/8" AOH drill pipe.
2. Build curve to estimated target depths and angles as follows:
 

True Vertical Depth .....	6980'
Measured Depth .....	7052'
Final Angle .....	88.7 degrees
Target Azimuth .....	36.9 degrees
Build Rate .....	44 degrees/100'

Drill the curve sliding as necessary to stay on target. It is recommended that after each slide, the bit be pulled back and washed through the slide. Once the curve is built, rotate through the curve section noting tight spots and fill. Make at least one short trip prior to tripping out of the hole.
3. Trip in the hole with Scientific Drilling's lateral assembly. This will be a 4-3/4" insert or PDC bit , 3-3/4" motor, float sub/orienting combo, 2 - flexible monel collars and 2-7/8" AOH drill pipe. Change the hole over to air.
4. Drill  $\pm 873'$  of hole per the attached well plan. Keep bottom hole pressures as low as possible. Formation gas contains 0.6 mole percent H<sub>2</sub>S.
5. Continue drilling the horizontal section per the Texaco Engineer recommendations.
6. Clean the hole up and then pump enough 2% KCl water to yield 600psi bottom hole hydrostatic pressure. Trip out of the hole with the drilling assembly. TIH and set a Baker packer with a plug in the on-off tool at  $\pm 6800'$ . Test packer to 1000 psi.
7. Lay down the drill pipe. Nipple down the BOP stack. Install a manual 3000 psig BOP equipped with blind rams and 2-7/8" pipe rams. Release the rig. Rig down and move out rotary tools.

**COMPLETION PROCEDURE:**

1. Back drag the location and set pulling unit anchors.
2. Move in and rig up a pulling unit.
3. TIH with tubing and circulate packer fluid into annular area. Tie into packer and swab fluid level down to packer. Pull equalizing prong and plug.
4. Swab well on production.
5. Rig up Dowell and acid stimulate (Foam Mat) with 23,000 gallons of 15% HCl if needed.
6. Flow back immediately. Flow test.

**POTENTIAL PROBLEMS:****Production Hole:**

- a) No problems anticipated.

**Horizontal Production hole:**

- a) Loss circulation material and/or other plugging agents are not to be used in this portion of the hole.
- b) The horizontal lateral will be drilled with air. Care should be taken to minimize bottom hole pressures in order to drill the lateral under balanced (BHP is expected to be less than 500 psi),
- c) Hydrogen sulfide is expected, and H<sub>2</sub>S detection equipment is to be installed.

**MUD PROGRAM:**

<b><u>Interval</u></b>	<b><u>Type</u></b>	<b><u>Weight</u></b>	<b><u>Viscosity</u></b>	<b><u>Remarks</u></b>
Curve	Fresh Water	8.4 ppg	35	Raise visc. with starch and gel
Horizontal	Air			BHP to be minimized

**EVALUATION PROGRAM****Coring:**

No cores are anticipated.

**Mud Loggers:**

No mud logging is anticipated.

**Horizontal Hole Logs:**

No logs are anticipated.

**CASING PROPERTIES**

<b><u>PIPE</u></b>	<b><u>DEPTH</u></b>	<b><u>BURST</u></b>		<b><u>COLLAPSE</u></b>		<b><u>ORIG. TEST</u></b>
		<b><u>Rated (75%)</u></b>	<b><u>Rated (75%)</u></b>	<b><u>Rated (75%)</u></b>	<b><u>Rated (75%)</u></b>	<b><u>PRESSURE</u></b>
9-5/8", 36#/ft, WC50	0'-1500'	3200	2400	1930	1447	1000
7", 26#/ft, S-95	0'-6920'	8600	6450	7800	5850	2500

NM DF Stake Com No.3

KB A071

Measured  
Depth

6800

6850

6900

6950

7000

7050

7100

7150

7200

orig

4

TK1500 6830(-2759)  
KOP ≈ 6850' ± Drill NNE

(-2779)

(-2869)

(-2869)

(-2929)

Open  
Hole  
6920-7003

Vert  
Section

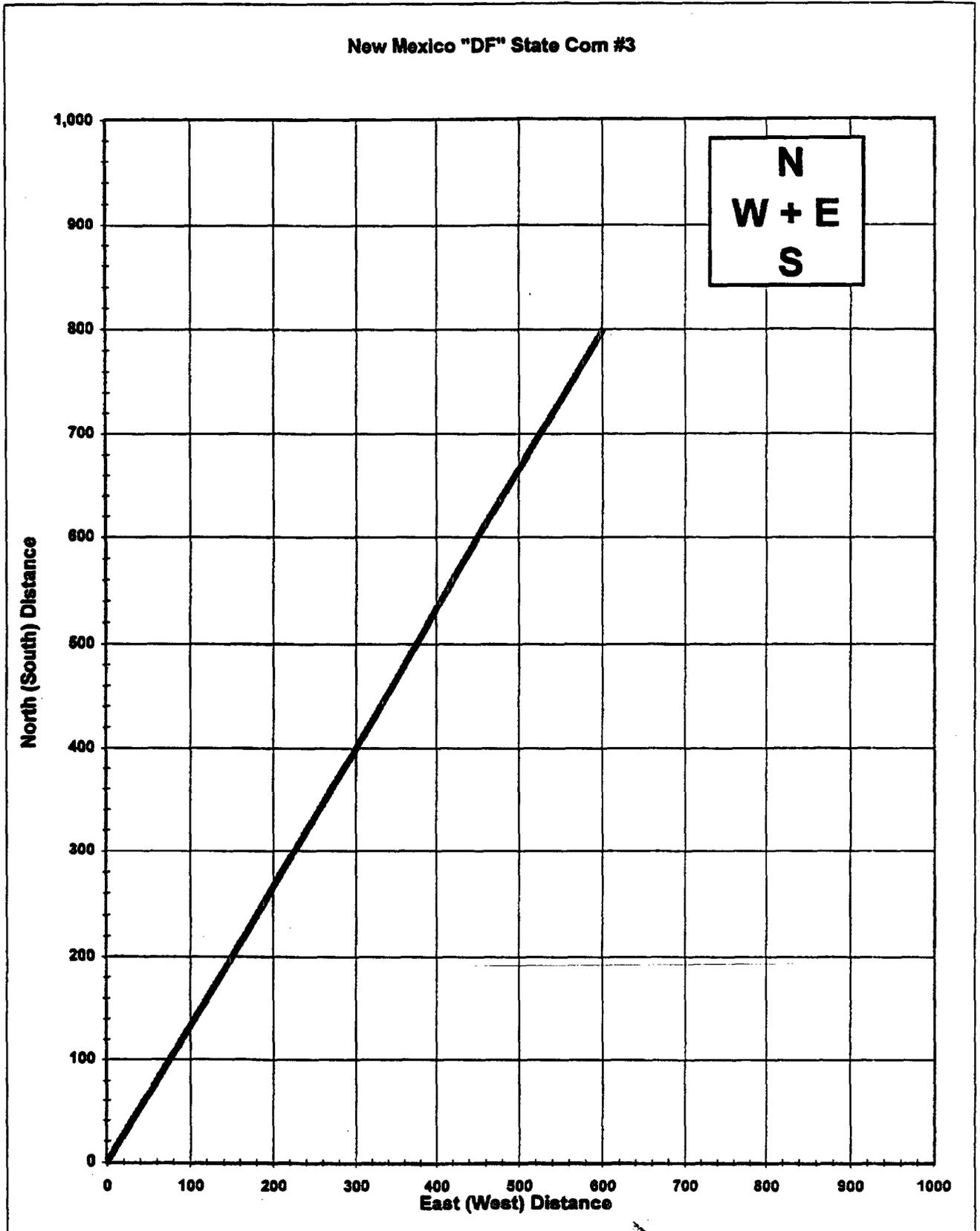
100 250 400 500 600 700 800 900 1000

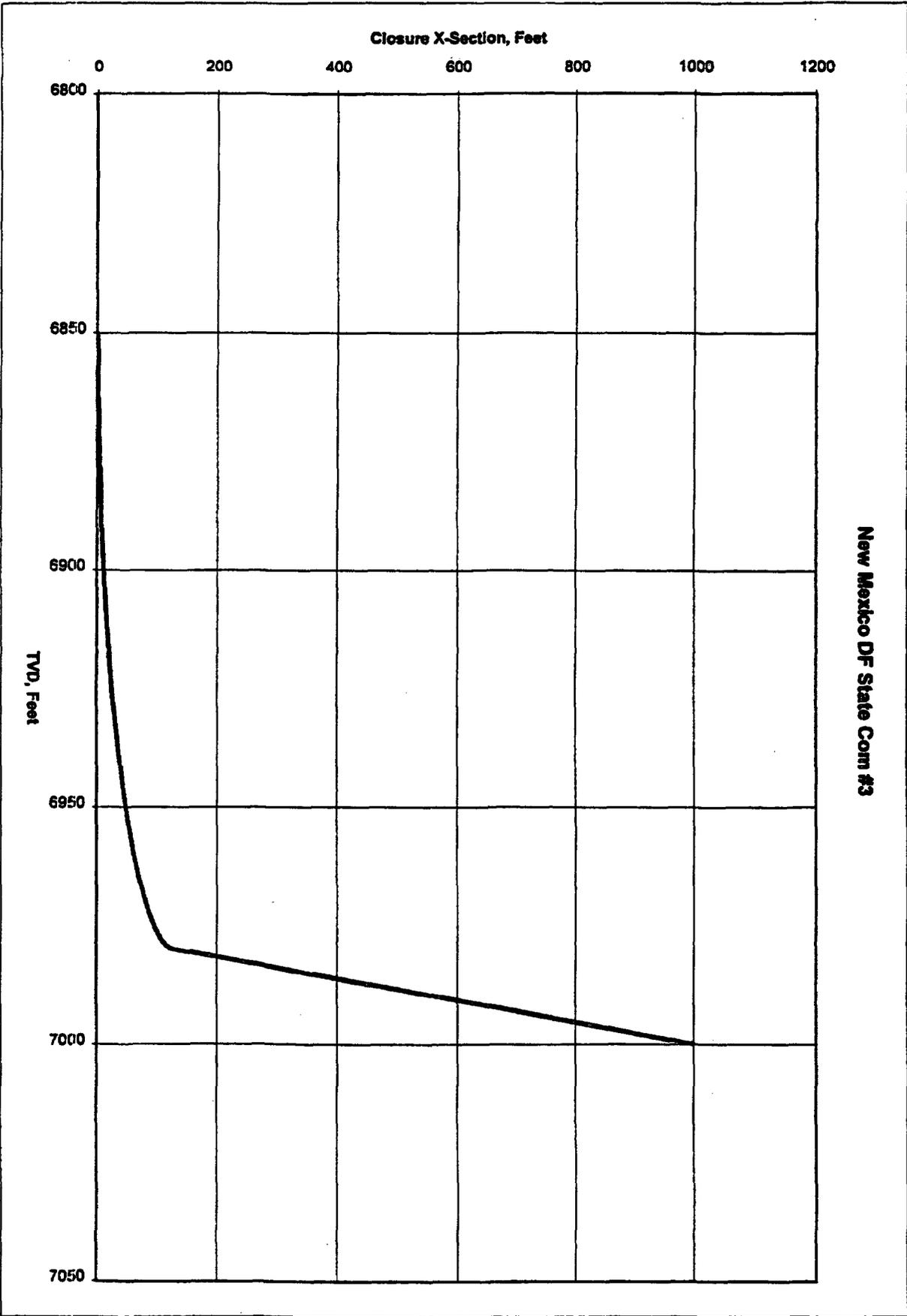
400' N  
300' E  
o

800' N  
600' E

22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS









Submit 3 copies to Appropriate District Office

State of New Mexico Energy, Minerals and Natural Resources Department

SF Form C-103 Revised 1-1-89

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.	30-015-29284
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No.	NM-192330
7. Lease Name or Unit Agreement Name	NEW MEXICO DF STATE COM
8. Well No.	3
9. Pool Name or Wildcat	INDIAN BASIN UPPER PENN
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	4059' GR

SUNDRY NOTICES AND REPORTS ON WELL  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator: 205 E. Bender, HOBBS, NM 88240

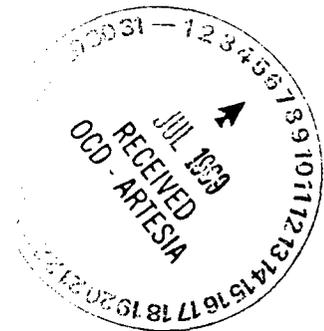
4. Well Location  
Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>
OTHER: <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: Add perms, Acidize <input checked="" type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

3-22-99: MIRU. INSTL FULL LUBRICATOR ON 5K TREE. TIH W/GUN & PERF UPPER PENN FORMATION FR 6846-48, 6851-60, 6873-93, 6909-17.  
 3-23-99: TIH W/DSP TOOL ON COILED TBG. ACIDIZE UPPER PENN PERFS 6846-6909' W/4000 GALS 15% NEFE HCL & 355,066 SCF N2 FOAMED GAS WELL ACID. PUMPED IN 4 STAGES. JET HOLE DRY FR 6975-3000'. FLOW & CLEAN UP WELL. TURNED DOWN LINE @ 2:00 AM.  
 6-16-99: ON 24 HR OPT. FLOW 0 BO, 30 BW, & 767 MCF.  
 FINAL REPORT



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

SIGNATURE J. Denise Leake TITLE Engineering Assistant DATE 6/22/99

TYPE OR PRINT NAME J. Denise Leake Telephone No. 397-0405

(This space for State Use)

APPROVED BY Jim W. [Signature] TITLE District Supervisor DATE 7-8-99

CONDITIONS OF APPROVAL, IF ANY:

SF

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.	30-015-29284
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No.	NM-192330
7. Lease Name or Unit Agreement Name	NEW MEXICO DF STATE COM
8. Well No.	3
9. Pool Name or Wildcat	INDIAN BASIN UPPER PENN

SUNDRY NOTICES AND REPORTS ON WELL  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator: 205 E. Bender, HOBBS, NM 88240

4. Well Location  
Unit Letter G 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

10. Elevation (Show whether DF, RKB, RT,GR, etc.) 4059' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>
OTHER: <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

4-08-98: MIRU. TIH W/PLUG & SET IN NIPPLE @ 6829'. BLED 480# OFF TBG. LOAD 3 1/2" TBG W/58 BBLS 2% KCL. LOAD BACKSIDE W/1 BBL. ND 3000# TREE. NUBOP & CHOKE MANIFOLD. REL ON/OFF TOOL FR PKR. TOH LD TBG.

4-09-98: REDRESS ON/OFF TOOL. UNLOAD & RACK 215 JTS 2 7/8" TBG.

4-10-98: TIH W/ON/OFF TOOL, X-OVER, 2 7/8" TBG. LD 2 JTS TBG.

4-13-98: LATCH ONTO PKR @ 6820'. TEST ANNULAS TO 500 PSI-OK. REM BOP. REM TBG COLLAR. INSTL TREE. TEST TREE FLANGE TO 2500 PSI-OK. SWAB FL TO 3400'. REM TREE. INSTL BOP. LOAD TBG W/2% KCL FW.

4-14-98: REL ON/OFF TOOL. LD 1 JT TBG. RUN 2 7/8" S.S. NIPPLE & 1 JT 2 7/8" IPC TBG. LATCH ONTO PKR. PMP DN CSG & TEST ON/OFF TOOL TO 500#-OK. NDBOP. NU TREE. TEST TREE TO 2500#-OK. SWAB FLUID IN TBG TO 3400'. TIH W/GAUGE RING TO 6824'. TIH W/EQUALIZER PRONG & EQUALIZE TBG. TBG ON VAC. TIH W/NEW TOOL. FSH PLUG.

4-15-98: ACIDIZE UPPER PENN O.H. FR 6920-6975' W/5000 GALS GAS WELL ACID & FLSH W/2600 GALS DIESEL. FL @ 5300'. WELL FLOWING ON 25# TP. END FL @ 5400'.

4-16-98: TBG PRESS FELL TO 120#. TIE INTO SALES LINE @ 4:00 PM.

4-17-98: RIG DOWN. OPEN WELL ON FULL CHOKE. FTP-350#. COMPRESSOR DOWN. START COMPRESSOR. WELL FLOWING.

5-30-98: ON 24 HR OPT. FLOWING 0 BO, 3 BW, & 1920 MCF.

FINAL REPORT

JUL 28 1998 RECEIVED OGD - ARTESIA

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

SIGNATURE J. Denise Leake TITLE Engineering Assistant DATE 7/20/98

TYPE OR PRINT NAME J. Denise Leake Telephone No. 397-0405

(This space for State Use)

APPROVED BY Jim W. Leem <sup>B6P</sup> TITLE District Supervisor DATE 7-27-98

CONDITIONS OF APPROVAL, IF ANY:

SF

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240  
**DISTRICT II**  
P.O. Box Drawer DD, Artesia, NM 88210  
**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO. 30-015-29284
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No. NM-192330
7. Lease Name or Unit Agreement Name NEW MEXICO DF STATE COM
8. Well No. 3
9. Pool Name or Wildcat INDIAN BASIN UPPER PENN
10. Elevation (Show whether DF, RKB, RT,GR, etc.) 4059' GR

**SUNDRY NOTICES AND REPORTS ON WELL**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator  
TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator  
205 E. Bender, HOBBS, NM 88240

4. Well Location  
Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

TEXACO INTENDS TO REPLACE 3 1/2" TUBING STRING WITH A 2 7/8" TUBING STRING. GAS VELOCITIES IN THE 3 1/2" STRING ARE NOT FAST ENOUGH TO LIFT THE WELLS 1.3 BBL/MMCF OF PRODUCED FLUIDS. A 2 7/8" TUBING STRING WILL FACILITATE THE REMOVAL OF PRODUCED FLUIDS FROM THE WELLBORE THEREBY INCREASING THE WELLS GAS PRODUCTION RATE AND LOWERING CONTROLLABLE EXPENSES ASSOCIATED WITH SWABBING. PRIOR TO THE ABOVE, AN ACID STIMULATION WILL BE PERFORMED TO REMOVE ANY SKIN DAMAGE THAT MAY HAVE OCCURRED DURING DRILLING.

INTENDED PROCEDURE:

ACIDIZE UPPER PENN OPEN HOLE (6920-6975) W/5000 GALS 15% HCL & METHANOL. FLSH W/DIESEL TO BTM OF OPEN HLE. SET 1.875" PLUG IN R PROFILE @ 6829'.  
RUPU. TOH & LD 216 JTS 3 1/2" 9.3#, L-80 TBG. SEND 3 1/2" TBG TO WAREHOUSE.  
TIH W/2 7/8", 6.5# POLYETHYLENE LINED TBG. LAND TBG IN 7" RETR CSG PKR @ 6810'. RDPU.  
REM 1.875" PLUG IN R PROFILE @ 6829'. RETURN WELL TO PRODUCTION.

MAR 1998  
RECEIVED  
OCD - ARTESIA

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

SIGNATURE J. Denise Leake TITLE Engineering Assistant DATE 3/16/98

TYPE OR PRINT NAME J. Denise Leake Telephone No. 397-0405

(This space for State Use) Jim W. Seem TITLE District Supervisor DATE 3/30/98

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION DIVISION

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

SF

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <b>Texaco</b>		State For Unit Name <b>New Mexico DE State</b>	
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special	Text Date <b>3/20/97</b>	Well No. <b>3</b>	
Completion Date <b>1/26/97</b>	Total Depth <b>7000</b>	Ping Back TD <b>7000</b>	Elevation <b>4059</b>
Csg. Size <b>7"</b>	Wt. <b>26#</b>	d <b>6.276</b>	Set At <b>6920</b>
Tbg. Size <b>3 1/2</b>	Wt. <b>9.2</b>	d <b>2.992</b>	Set At <b>6807</b>
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <b>Single</b>		Packer Set At <b>6907</b>	Formation <b>Upper Penn</b>
Producing Thru Tbg <b>6920</b>	Reservoir Temp. °F <b>143.2</b>	Mean Annual Temp. °F <b>60°</b>	Baro. Press - P <sub>a</sub> <b>13.2</b>
L <b>6920</b>	H <b>6920</b>	Gg <b>.625</b>	% CO <sub>2</sub> <b>.82</b>
		% N <sub>2</sub> <b>.61</b>	% H <sub>2</sub> S <b>0</b>
		Prover <b>0</b>	Meter Run <b>4.026</b>
			Taps <b>F/G</b>

FLOW DATA				TUBING DATA				CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	4.026 x 1.500		393.4	90		609				24 hrs.
2.										
3.										
4.										
5.										

NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1.							
2.	Volume Takes from total flow meter						2.797
3.							
4.							
5.							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.					399.571	
2.					A.P. L Gravity of Liquid Hydrocarbons 50.1	Deg.
3.					Specific Gravity Separator Gas .633	XXXXXXXXXX
4.					Specific Gravity Flowing Fluid N/A	XXXXXX
5.					Critical Pressure 674	PSIA 673 PSIA
					Critical Temperature 361	R 364 R

P <sub>c</sub> 609	P <sub>w</sub> 370.9
--------------------	----------------------

NO.	P <sub>c</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>
1.	154.8	421.7	177.9	193.0
2.				
3.				
4.				
5.				

1)  $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.921}{1.921 - 1.921}$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = \frac{1.921}{1.921 - 1.921}$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = \frac{5.374}{5.374 - 5.374}$

Absolute Open Flow <b>5.374</b>	Mcf/d @ 15.025	Angle of Slope $\Theta$ <b>45°</b>	Slope, n <b>1.000</b>
---------------------------------	----------------	------------------------------------	-----------------------

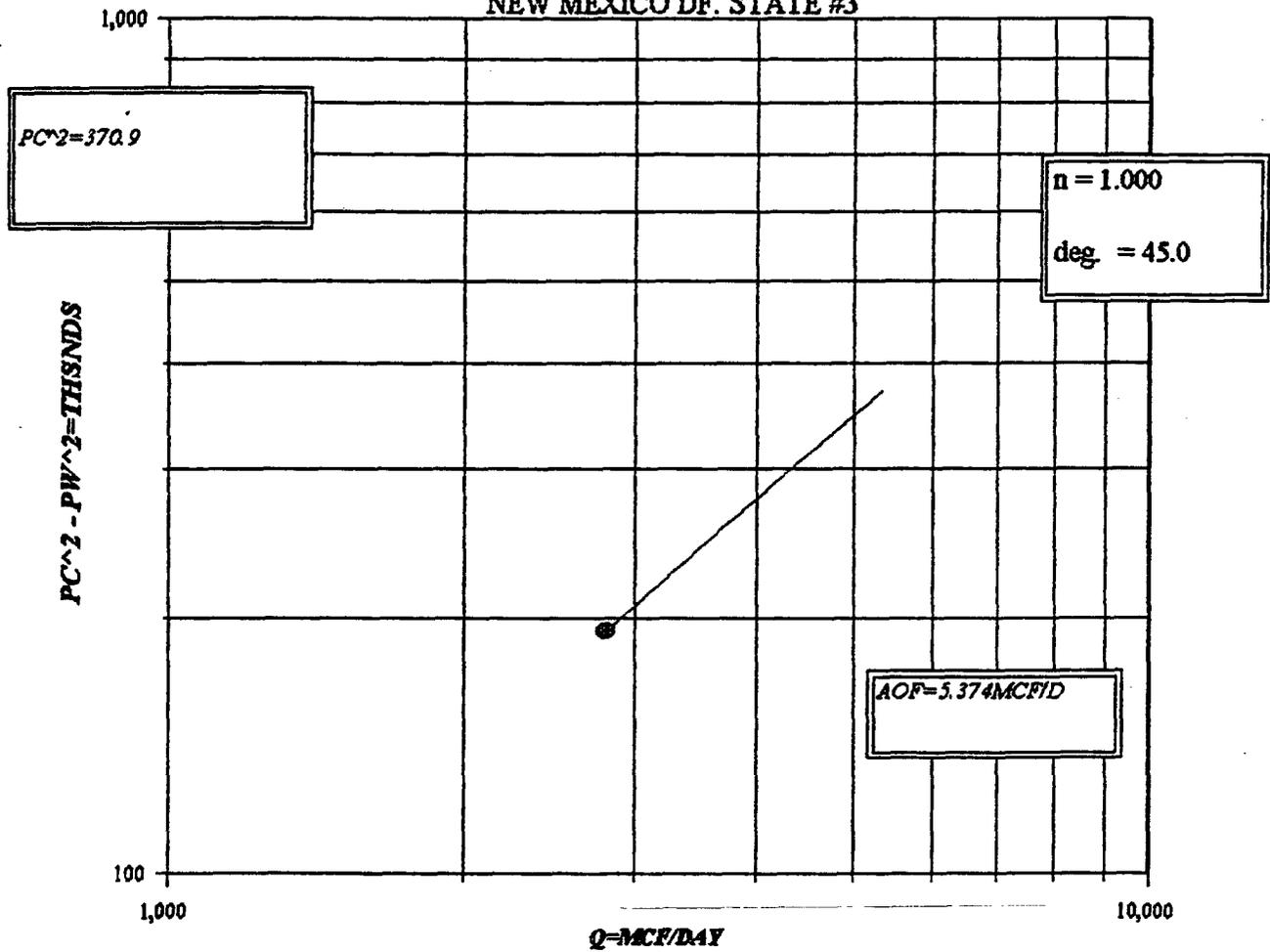
Remarks: *\*Well on Compressor will not break line Press.*  
*\*Well made 7 BBLS of Condensate 50.1 API Gravity.*

Approved By Division	Conducted By: <b>Pro Well Tester</b>	Calculated By: <b>MB</b>	Checked By: <b>BM</b>
----------------------	---	-----------------------------	--------------------------



TEXACO E.&P.  
NEW MEXICO DF. STATE #3





Laboratory Services, Inc.

1331 Tasker Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

FOR: Texaco E & P, Inc.
Attention: Mr. R. W. Lemmons
P. O. Box 730
Hobbs, New Mexico 88240

SAMPLE Station #36-104-0659
IDENTIFICATION: N.M. DF State #3
COMPANY: TEPI
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 3/13/97 10:30 AM
ANALYSIS DATE: 3/14/97
PRESSURE - PSIA 397
SAMPLE TEMP. °F 85.1
ATMOS. TEMP. °F 78.5

GAS (XX) LIQUID ( )
SAMPLED BY: R. W. Lemmons
ANALYSIS BY: Vickie Walker

REMARKS:

COMPONENT ANALYSIS

Table with columns: COMPONENT, MOL PERCENT, GPM. Rows include Hydrogen Sulfide, Nitrogen, Carbon Dioxide, Methane, Ethane, Propane, I-Butane, N-Butane, I-Pentane, N-Pentane, Hexane Plus, BTU/CU.FT. - DRY, and SPECIFIC GRAVITY.

NEW MEXICO G.O.R./G. MIX

NO. OF BBLs PRODUCED = 7.0  
API GRAVITY @ 60 DEG. = 50.1

SPECIFIC GRAVITY OF GAS = 0.6250

XX  
TOTAL GAS PRODUCED = 2797

G.O.R. = 399.571

G.MIX = 0.633

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-104  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		<sup>2</sup> OGRID Number 022351
		<sup>3</sup> Reason for Filing Code NW
<sup>4</sup> API Number 30-015-29284	<sup>5</sup> Pool Name INDIAN BASIN UPPER PENN	<sup>6</sup> Pool Code 79040
<sup>7</sup> Property Code 11032	<sup>8</sup> Property Name NEW MEXICO DF STATE COM	<sup>9</sup> Well No. 3

II. <sup>10</sup> Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

<sup>11</sup> Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
<sup>12</sup> Lse Code S	<sup>13</sup> Producing Method Code F	<sup>14</sup> Gas Connection Date 2/13/97	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
015694	NAVAJO REFINING COMPANY P.O. BOX 159 ARTESIA, N.M. 88211	2489710	O	K-32-21S-23E EDDY, N.M. (N.M. DF STATE COM #1 LOCATION)
014035	MARATHON OIL COMPANY 329 MARATHON ROAD LAKEWOOD, N.M. 88254	2489730	G	K-32-21S-23E EDDY, N.M. (N.M. DF STATE COM #1 LOCATION)
<b>RECEIVED</b>				
<b>FEB 28 1997</b>				
<b>OIL CON. DIV.</b>				

IV. Produced Water

<sup>23</sup> POD 2489750	<sup>24</sup> POD ULSTR Location and Description K-32-21S-23E; EDDY, N.M. (NM DF STATE COM #1 LOC)
------------------------------	---

V. Well Completion Data

<sup>25</sup> Spud Date	<sup>26</sup> Ready Date	<sup>27</sup> Total Depth	<sup>28</sup> PBTB	<sup>29</sup> Perforations
12/22/96	1/26/97	7000'	7000'	OPEN HOLE COMPLETION
<sup>30</sup> HOLE SIZE	<sup>31</sup> CASING & TUBING SIZE	<sup>32</sup> DEPTH SET	<sup>33</sup> SACKS CEMENT	
12 1/4"	9 5/8"	1500'	650 SX, CIRC 15	
7 7/8"	7"	6920'	1050 SX, CIRC 201	
			DV TOOL @ 3600'	

VI. Well Test Data

<sup>34</sup> Date New Oil	<sup>35</sup> Gas Delivery Date	<sup>36</sup> Date of Test	<sup>37</sup> Length of Test	<sup>38</sup> Tubing Pressure	<sup>39</sup> Casing Pressure
1/26/97	2/13/97	1/26/97	24	440#	
<sup>40</sup> Choke Size	<sup>41</sup> Oil - Bbls.	<sup>42</sup> Water - Bbls.	<sup>43</sup> Gas - MCF	<sup>44</sup> AOF	<sup>45</sup> Test Method
48/64	0	0	3145		F

<sup>46</sup> I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature

*Monte C. Duncan*

Printed Name

Monte C. Duncan

Title

Engr Asst

Date

2/28/97

Telephone

397-0418

OIL CONSERVATION DIVISION

Approved By:

*Jim W. Green*

Title:

*District Supervisor*

Approval Date:

*2/10/97*

<sup>47</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date

Submit to Appropriate District Office  
 State Lease - 6 copies  
 Fee Lease - 5 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-105  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**

**DISTRICT I**  
 P.O. Box 1980, Hobbs, NM 88240  
**DISTRICT II**  
 P.O. Box Drawer DD, Artesia, NM 88210  
**DISTRICT III**  
 1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO.	30-015-29284
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lea	NM-192330

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well: OIL WELL  GAS WELL  DRY  OTHER   
 b. Type of Completion: NEW WELL  WORKOVER  DEEPEN  PLUG BACK  DIFF RES.

**RECEIVED**  
**FEB 28 1997**

7. Lease Name or Unit Agreement Name  
 NEW MEXICO DF STATE COM  
 8. Well No. 3  
 9. Pool Name or Wildcat  
 INDIAN BASIN UPPER PENN

2. Name of Operator  
 TEXACO EXPLORATION & PRODUCTION INC.  
 3. Address of Operator  
 205 E. Bender, HOBBS, NM 88240  
 4. Well Location  
 Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
 Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

**OIL CON DIV**  
**DIST. 2**

10. Date Spudded 12/22/96	11. Date T.D. Reached 1/21/97	12. Date Compl. (Ready to Prod.) 1/26/97	13. Elevations (DF & RKB, RT, GR, etc.) 4059' GR	14. Elev. Csghead 4059' GR
------------------------------	----------------------------------	---	---	-------------------------------

15. Total Depth 7000'	16. Plug Back T.D. 7000'	17. If Mult. Compl. How Many Zones? -	18. Intervals Drilled By -	Rotary Tools 0-6975'	Cable Tools -
--------------------------	-----------------------------	--	-------------------------------	-------------------------	------------------

19. Producing Interval(s), of this completion - Top, Bottom, Name  
 6920-7000' OPEN HOLE COMPLETION(INDIAN BASIN UPPER PENN)  
 20. Was Directional Survey Made  
 YES  
 21. Type Electric and Other Logs Run  
 NONE  
 22. Was Well Cored  
 NO

**23. CASING RECORD (Report all Strings set in well)**

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
9 5/8"	24#	1500'	12 1/4"	650 SX, CIRC 15	TOC @ 411'
7"	26#	6920'	7 7/8"	1050 SX, CIRC 201	
				DV TOOL @ 3600'	

**24. LINER RECORD**      **25. TUBING RECORD**

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					3 1/2"	6807'	6810

26. Perforation record (interval, size, and number)  
 OPEN HOLE COMPLETION  
 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.  

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
NONE	

**28. PRODUCTION**

Date First Production 1/26/97	Production Method (Flowing, gas lift, pumping - size and type pump) FLOWING	Well Status (Prod. or Shut-in) PROD.					
Date of Test 1/26/97	Hours tested 24	Choke Size 48/64	Prod'n For Test Period	Oil - Bbl. 0	Gas - MCF 3145	Water - Bbl. 0	Gas - Oil Ratio -
Flow Tubing Press. 440#	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API -(Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)  
 FLARED UNTIL GAS CONNECTION ON 2/13/97  
 Test Witnessed By  
 JOHNSTON

**30. List Attachment** DEVIATION SURVEY

31. I hereby certify that the information on both sides of this form is true and complete to the best of my knowledge and belief.  
 SIGNATURE Monte C. Duncan TITLE Engr Asst DATE 2/27/97  
 TYPE OR PRINT NAME Monte C. Duncan Telephone No. 397-0418

# INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true verticle depths shall be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

## INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

### Southeastern New Mexico

### Northwestern New Mexico

T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn "B"	
T. Salt		T. Strawn		T. Kirtland-Fruitland		T. Penn "C"	
B. Salt		T. Atoka		T. Pictured Cliffs		T. Penn "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres	382'	T. Simpson		T. Gallup		T. Ignacio Otzte	
T. Glorieta	1806'	T. McKee		T. Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Delaware Sand		T. Todilto		T.	
T. Drinkard		T. Bone Springs	LS 3200'	T. Entrada		T.	
T. Abo		T. Bone Spring SS	5807'	T. Wingate		T.	
T. Wolfcamp	5922'	T. Yeso	1876'	T. Chinle		T.	
T. Penn		T.		T. Permian		T.	
T. Cisco	6830'	T.		T. Penn "A"		T.	

### OIL OR GAS SANDS OR ZONES

No. 1, from 6920' to 7000'	No. 3, from _____ to _____
No. 2, from _____ to _____	No. 4, from _____ to _____

### IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in the hole.

No. 1, from _____ to _____ feet	
No. 2, from _____ to _____ feet	
No. 3, from _____ to _____ feet	

### LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
0	238'	238'	Lime & Sand				
238'	1162'	924'	Lime				
1162'	2430'	1268'	Lime & Sand				
2430'	2920'	490'	Lime				
2920'	3683'	763'	Lime, Sand, Shale				
3683'	4912'	1229'	Lime & Sand				
4912'	5689'	777'	Lime				
5689'	6167'	478'	Lime, Sand, Shale				
6167'	7000'	833'	Lime & Sand				
TD	7000'						

Texaco Expl. & Prod. Inc.  
New Mexico DF State Com #3  
Eddy Co., NM

Unit Letter G, Sec. 32, T-21-S, R-23-E

STATE OF NEW MEXICO  
DEVIATION REPORT

193	1/2
531	3/4
839	1/2
1,300	1
1,500	3/4
1,742	3/4
2,055	1/2
2,549	3/4
3,015	3/4
3,360	3/4
3,669	3/4
3,950	3/4
4,200	3/4
4,480	1/4
4,725	1
4,910	1
5,130	1
5,590	1
5,990	1-1/4
6,458	2-1/2
6,680	1-3/4
6,920	1-1/2

RECEIVED

FEB - 5 1997

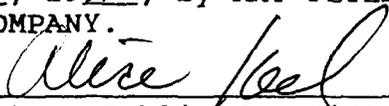
OIL CON. DIV.  
DIST. 2

  
By: Ray Peterson

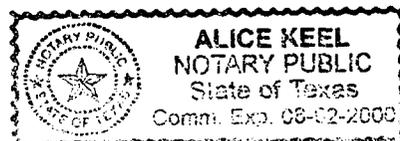
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me  
this 13th day of January, 1997, by RAY PETERSON  
on behalf of PETERSON DRILLING COMPANY.

  
Notary Public for Midland  
County, Texas

My Commission Expires: 8/2/2000



SF

Submit 3 copies  
to Appropriate  
District Office

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

RECEIVED  
FEB 19 1997

WELL API NO.	30-015-29284
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No.	
7. Lease Name or Unit Agreement Name	NEW MEXICO 'DF' STATE COM. NCT-1
8. Well No.	3
9. Pool Name or Wildcat	INDIAN BASIN PENN
10. Elevation (Show whether DF, RKB, RT,GR, etc.)	4059'

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator: P.O. Box 2100, Denver Colorado 80201

4. Well Location  
Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

10. Elevation (Show whether DF, RKB, RT,GR, etc.) 4059'

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	COMPLETION <input checked="" type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- TIH W/ 3-1/2" TBG. TAG CMT @ 3620'. COC AND DV TOOL @ 3615'. TEST TO 2500 PSI. TIH TO 4545'. 01-19-97.
- BLOW HOLE DRY. CO FS, DRILL 50' FORMATION TO 6975'. PU, FLOW TEST @ RATE OF 2.9 MMCF 450 PSI, 36/64 CK. LEFT FLOWING, NG. 01-21-97.
- RU SCHLUMBERGER. SET BAKER SC-2P ON WL @ 6810'. 01-24-97.
- LOAD ANNULUS W/ PACKER FLUID. TEST TO 500 PSI. DS PUMPED NITROGEN IN 3-1/2" TBG AND PUMP OUT PLUG BELOW PKR W/3200 PSI. OPEN WELL AND FLOW TBG CLEAR OF NITROGEN. 01-26-97.
- FLOW TEST WELL. STABILIZE FLOW RATE OF 3.145 MMCFD, 0 BO, 0 BW, FTP 350 ON 48/64" CHOKE. FLOW TEST COMPLETE @ 11:45 A.M. DRLG TO NG. 01-26-97.

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

SIGNATURE C.P. Bacham / SRH TITLE Eng. Assistant. DATE 1/28/97

TYPE OR PRINT NAME Sheilla D. Reed-High Telephone No. (303)621-4851

(This space for State Use)

APPROVED Jim W. Beem TITLE District Supervisor DATE 2/21/97

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

**OIL CONSERVATION DIVISION**

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240  
**DISTRICT II**  
P.O. Box Drawer DD, Artesia, NM 88210  
**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO. 30-015-29284
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No.
7. Lease Name or Unit Agreement Name NEW MEXICO 'DF' STATE <del>CONTRACT</del> 11032
8. Well No. 3
9. Pool Name or Wildcat INDIAN BASIN PENN

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO REEVAL OR PLUG BACK DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMITS" (FORM C-101) FOR SUCH PROPOSALS.)

RECEIVED

JAN 23 1997

OIL CON. DIV. - DIST. 2

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator  
TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator  
P.O. Box 2100, Denver Colorado 80201

4. Well Location  
Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 4059'

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input checked="" type="checkbox"/>	SPUD, SURG CSG, PROD CSG

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.
- PETERSON RIG #2 SPUD 12.25 INCH HOLE @ 4:00 PM 12-22-96. DRILLED TO 1500'. TD @ 1:45 AM 12-25-96.
  - RAN 40 JOINTS OF 9 5/8 INCH, 24#, WC-50, STC CASING SET @ 1500'. RAN 15 CENTRALIZERS.
  - DOWELL CEMENTED WITH 400 SACKS CLASS C W/ 4% GEL, 2% CACL2 (13.5 PPG, 1.74 CF/S 9.1 GW/S). F/B 250 SACKS CLASS C W/ 2% CACL2 (14.8 PPG, 1.34 CF/S 6.3 GW/S). PLUG DOWN @ 10:45 PM 12-25-96. CIRC 15 SACKS. RAN TEMP SURVEY, TOC@411'
  - NU BOP & TESTED TO 1200#. TESTED CASING TO 1000# FOR 30 MINUTES FROM 1:30 PM TO 2:00 PM 12-26-96.
  - WOC TIME 14 HOURS AND 45 MINUTES FROM 10:45 PM 12-25-96 TO 1:30 PM 12-26-96. REQUIREMENTS OF RULE 107, OPTION 2:
    - VOLUME OF CEMENT SLURRY: LEAD 696 (CU. FT.), TAIL 335 (CU. FT.).
    - APPROX. TEMPERATURE OF SLURRY WHEN MIXED: 50 F.
    - EST. FORMATION TEMPERATURE IN ZONE OF INTEREST: 90 F.
    - EST. CEMENT STRENGTH AT TIME OF CASING TEST: 1767PSI.
    - ACTUAL TIME CEMENT IN PLACE PRIOR TO TESTING: 14 HOURS AND 45 MINUTES.
  - DRILLING 7 7/8 INCH HOLE.
  - DRILLED 7 7/8 INCH HOLE TO 6920'. TD @ 9:45 AM 01-06-97.
  - RU SCHLUMBERGER. SCHLUMBERGER LOG PLATFORM EXPRESS 6915'-1500'. LOG CMR 3600'-160'.
  - RAN 155 JOINTS OF 7 INCH, 26#, S-95, LTC CASING SET @ 6920'.
  - DOWELL CEMENTED: 1ST STAGE - 600 SACKS 50/50 POZ CLASS H W/ 2% GEL, 5% SALT, 1/4# FLOCELE (14.2 PPG, 1.35 CF/S, 6.3 GW/S). DV TOOL @ 3600'. CIRCULATED 125 SACKS OFF DV TOOL. 2ND STAGE - 350 SACKS 35/65 POZ CLASS H W/ 6% GEL, 5% SALT, 1/4# FLOCELE (12.4 PPG, 2.14 CF/S). F/B 100 SACKS CLASS H NEAT (15.6 PPG, 1.18 CF/S). PLUG DOWN @ 8:00 AM 01-09-97. CIRCULATED 76 SACKS.
  - ND. RELEASE RIG @ 2:00 PM 01-09-97.
  - PREP TO COMPLETE.

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

SIGNATURE C. P. Beckham SRT TITLE Eng. Assistant. DATE 1/17/97  
 TYPE OR PRINT NAME Sheilla D. Reed-High Telephone No. (303) 624-4851

(This space for State Use)

APPROVED Jim W. Gunn BGA DATE 1-28-97  
 CONDITIONS OF APPROVAL, IF ANY: District Supervisor



Dowell

**CemDABE Cement Test Report**

January 5, 1997

DATE OF TEST : 05-jan-1997

TEST NUMBER : NPD700800001

**CUSTOMER** : TEXACO  
**FIELD** : EDDY NM  
**WELL** : N M STATE DF COM 3

**CEMENT**  
 Class : H  
 Blend : 3565  
 Brand : LONESTAR  
 Plant : MARYNEAL

**BASE FLUID**

Density : 8.32 lb/gal  
 Volume : 11.95 gal/sk  
 Type : LO  
 Total liquid : 11.95 gal/sk

**SLURRY**

Density : 12.40 lb/gal  
 Yield : 2.14 ft<sup>3</sup>/sk

B.H.S.T. : 105.0 F

B.H.C.T. : 96.0 F

ADDITIVES		
Code	Concent.	Unit
D020	6.000	% BWOC
D029	0.250	% BWOC
D044	5.000	% BWOW

Rheometer type : Fann 35  
 Spring factor : 1.0  
 Bob No : 1  
 Rotor No : 1

Rheological model (Dial 1) : Bingham Plastic

$\tau_y : 7.161 \text{ lbf}/100\text{ft}^2$

$P_y : 8.877 \text{ cP}$

Correlation coefficient : 1.000

Thickening Time : 13 hr 5 mn to 70 BC

API Schedule :

Set condition :

Consistometer serial number :

No Fluid Loss data available

No Free Water data available

Rheological data		
Temp. (F) :	75.0	0.0
R.P.M.	Dial 1	Dial 2
300.0	16.0	0.0
200.0	13.0	0.0
100.0	10.0	0.0
60.0	9.0	0.0
30.0	8.0	0.0
6.0	6.0	0.0
3.0	5.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
10 minutes Gel : 0.0		

Compressive strength		
PSI	Hours	Temp. (F)
150	6.0	105.0
360	12.0	105.0
440	24.0	105.0

Comment :

**FIELD BLEND**

35/65POZ/H + 6%D20 + 5%D44(BWOW) + 0.25PPSD29

LOCATION WATER USED

LONG STRING 2ND STAGE LEAD 3600' PCD = 4:10



**CemDABE Cement Test Report**

January 6, 1997  
 DATE OF TEST : 06-jan-1997

**TEST NUMBER : NPD700800002**

**CUSTOMER : TEXACO**  
**FIELD : EDDY NM**  
**WELL : NM STATE DF COM 3**

**CEMENT**  
 Class : H  
 Blend : 5050  
 Brand : LONESTAR  
 Plant : MARYNEAL

**BASE FLUID**  
 Density : 8.32 lb/gal  
 Volume : 6.30 gal/sk  
 Type : LO  
 Total liquid : 6.30 gal/sk

**SLURRY**  
 Density : 14.20 lb/gal  
 Yield : 1.35 ft<sup>3</sup>/sk

B.H.S.T. : 122.0 F  
 R.H.C.T. : 112.0 F

ADDITIVES		
Code	Concent.	Unit
D020	2.000	% BWOC
D029	0.260	% BWOC
D044	5.000	% BWOW

Rheometer type : Fann 35  
 Spring factor : 1.0  
 Bob No : 1  
 Rotor No : 1

Rheological model (Dial 1) : Bingham Plastic  
 $T_y : 30.423 \text{ lbf}/100\text{ft}^2$   
 $P_v : 13.587 \text{ cP}$   
 Correlation coefficient : 0.999

Rheological data		
Temp. (F) :	75.0	0.0
R.P.M.	Dial 1	Dial 2
300.0	44.0	0.0
200.0	39.0	0.0
100.0	35.0	0.0
60.0	33.0	0.0
30.0	26.0	0.0
6.0	21.0	0.0
3.0	18.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
10 minutes Gel : 0.0		

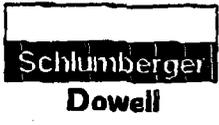
Thickening Time : 3 hr30 mn to 70 BC  
 API Schedule :  
 Set condition :  
 Consistometer serial number :

No Fluid Loss data available  
 No Free Water data available

Compressive strength		
PSI	Hours	Temp. (F)
116	6.0	122.0
776	12.0	122.0
1387	24.0	122.0

Comment :

**FIELD BLEND**  
 50/50 POZ/R + 2% D20 + 5% D44 (BWOW) + 0.25PPS D29  
**LOCATION WATER USED**  
 LONG STRING 1ST STAGE 6900' POD = 2:04



**CemDABE Cement Test Report**

January 6, 1997  
 DATE OF TEST : 06-Jan-1997

**TEST NUMBER : NPD700800003**

**CUSTOMER** : TEXACO  
**FIELD** : EDDY NM  
**WELL** : NM STATE DF COM 3

**CEMENT**  
 Class : H  
 Blend :  
 Brand : LONESTAR  
 Plant : MARYNEAL

**BASE FLUID**  
 Density : 8.32 lb/gal  
 Volume : 5.20 gal/sk  
 Type : LO  
 Total liquid : 5.20 gal/sk

**SLURRY**  
 Density : 15.60 lb/gal  
 Yield : 1.18 ft<sup>3</sup>/sk

B.H.S.T. : 105.0 F  
 B.H.C.T. : 96.0 F

**No additives**

Rheometer type : Fann 35  
 Spring factor : 1.0  
 Bob No : 1  
 Rotor No : 1

Rheological model (Dial 1) : Bingham Plastic  
 $T_y$  : 27.631 lbf/100ft<sup>2</sup>  
 $P_b$  : 19.578 cP  
 Correlation coefficient : 0.979

Rheological data		
Temp. (F) :	75.0	0.0
R.P.M.	Dial 1	Dial 2
300.0	47.0	0.0
200.0	40.0	0.0
100.0	36.0	0.0
60.0	30.0	0.0
30.0	25.0	0.0
6.0	22.0	0.0
3.0	19.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
10 minutes Gel : 0.0		

**Thickening Time** : 5 hr47 mn to 70 BC  
 API Schedule :  
 Set condition :  
 Consistometer serial number :

No Fluid Loss data available  
 No Free Water data available

Compressive strength		
PSI	Hours	Temp. (F)
450	6.0	105.0
996	12.0	105.0
1467	24.0	105.0

**Comment :**

**FIELD BLEND**  
**CLASS H NEAT**  
**LOCATION WATER USED**  
**LONG STRING 2D STAGE TAIL 3600'**



# CEMENTING REPORT

File No.: \_\_\_\_\_

Report Date: \_\_\_\_\_

Operator: Texas Requested By: \_\_\_\_\_Lease No: NM State DF Cam #3 Service Point: HUMLocation: Eld, NM Type of Job: Surface**Test Conditions:**Depth: 1500 ft., Temp Grad \_\_\_\_\_, BHST: 92 °F, BHCT: 88 °F

Properties:	Density (ppg)	Yield (cu ft/sk)	Mix Water (gal/sk)	Total Liquid (gal/sk)	Water Source	Cement Source
System No. 1	<u>13.5</u>	<u>1.74</u>	<u>9.11</u>	<u>9.11</u>	<u>LOC</u>	<u>C</u>
System No. 2	<u>14.8</u>	<u>1.32</u>	<u>6.32</u>	<u>6.32</u>	<u>LOC</u>	<u>C</u>
System No. 3	_____	_____	_____	_____	_____	_____
System No. 4	_____	_____	_____	_____	_____	_____

**Cement System Compositions:**System No. 1 C + 42 D20 + 27.51System No. 2 C + 27.51

System No. 3 \_\_\_\_\_

System No. 4 \_\_\_\_\_

**Thickening Time Results****Rheology Results**

SYSTEM	HR:MIN	BC	300	200	100	60	30	5	3	PV or n'	Tyork'	REHOLOGY MODEL	L.O.D.
No. 1	<u>3:00</u>	<u>70</u>	<u>36</u>	<u>31</u>	<u>27</u>			<u>14</u>	<u>12</u>				
No. 2	<u>2:00</u>	<u>70</u>	<u>40</u>	<u>36</u>	<u>31</u>			<u>17</u>	<u>14</u>				
No. 3													
No. 4													

**Compressive Strengths - psi****FLUID LOSS****FREE WATER**

SYSTEM	TEMP.	6 HRS.	12 HRS.	24 HRS.
No. 1	°F	<u>250</u>	<u>500</u>	<u>800</u>
No. 1	°F			
No. 2	°F	<u>660</u>	<u>1400</u>	<u>2000</u>
No. 2	°F			
No. 3	°F			
No. 3	°F			
No. 4	°F			
No. 4	°F			

SYSTEM	°F, _____ psi	°F
	mL/30 min	mL
No. 1		
No. 2		
No. 3		
No. 4		

Remarks: Pressure Data

Chemist: \_\_\_\_\_



Well: NM "DF" ST. COM #3	Activity: CMT SURFACE	Spud Date: 12/22/96	CD: 4
Field: INDIAN BASIN PENN	TD: 0	Footage: 0	API No: 30-015-28284-00-
County: EDDY State: NM	ATD: 7,000	Hours: 0	Estimate No: 886013
OU:	PBTD: 0	Class: Dev	Supervisor: JOHNSTON
Objective: CISCO DOLO	KB: 0	BOP Days:	Phone: (505) 393-4994
Lithology: / /	GL: 4,059	IDC%/Ft:	Contractor: PETERSON #2 Daywork

M Dpth	Inclination	Azimuth	DLS
1,500	0.75	0.0	0.00
1,300	1.00	0.0	0.00
835	0.50	0.0	0.00
531	0.75	0.0	0.00
193	0.50	0.0	0.00

Measured Depth:	1,500
True Vertical Depth:	0.00
Inclination:	0.75
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dog Leg:	0.00
Survey Tool:	

0.50	L/D 8" DC
3.00	R/U CSG CREW, RAN 40 JTS 9 5/8" CSG, TOTAL FEET 1506, SET AT 1500'
0.50	R/U DOWELL, WASH 20' TO BTM
1.75	CMT, PUMPED 200 BBLS FRESH WATER AHEAD, LEAD: 400 SX CLASS "C", TAIL: 250 SX CLASS "C", PLUG DOWN AT 10:45 A.M. 12/25/96, FLOAT DID NOT HOLD
6.25	WOC
0.50	R/U PRO WL, RAN TEMP SURVEY, TOC @ 411'
0.75	RAN IN HOLE W/ 1", TAGGED AT 496', CMT W/ 50 SX CLASS "C"
1.00	WOC
5.00	W/O CMT PUMP
0.25	CMT W/ 35 SX CLASS "C" AT 436'
1.00	WOC
0.50	CMT AT 436' W/ 35 SX CLASS "C"
1.00	WOC
0.50	CMT AT 396' W/ 35 SX CLASS "C"
1.00	WOC
0.50	CMT AT 376' W/ 50 SX CLASS "C"

24.00 TOTAL HOURS

Mud Wt:	0	Oil:	0
Viscosity:	0	MBT:	0
PV:	0	pH:	0
YP:	0	Pm:	0
10 Sec Gel:	0	Pf:	0
10 Min Gel:	0	Chl:	0
WL:	0	CA:	0
MTHP:	0	Ex Lime:	0
FC:	0	Elec Stab:	0
Solids:	0	Temp:	0
Daily Cost:	\$0	Cum:	\$0

Prop Size	Prop MD	Actual Size	Actual MD
3.500	6,900	0.000	0
7.000	6,900	0.000	0
9.625	1,800	0.000	0

	MOH	Cash	Totals
DH:	\$110000	\$325000	\$435000
Compl:	\$35000	\$85000	\$120000
Total:	\$145000	\$410000	\$555000

	MOH	Cash	Totals
DH:	\$5000	\$80000	\$85000
Compl:	\$3000	\$2000	\$5000
Total:	\$8000	\$82000	\$90000
Daily:	\$0	\$0	\$0

**MUD MATERIAL**

	Liner Size	Sik Lgth	SPM	GPM	PSI:	0
PUMP #1:	0	0	0	0	AV (DC):	0
PUMP #2:	0	0	0	0	AV (DP):	0
					PSI Drop:	0
					HP/INZ:	0

	PSI	SPM
PUMP #1:	0 @	0
PUMP #2:	0 @	0

**BHA**

BHA#	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
1	871	0	36	SLICK	94	94	94	0

DESCRIPTION: B-SS-4 8"-XO-23 6"

**BITS**

RUN	BIT#	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	B	G	O	R
1	1	HP62	12.25		0	1500	1500	53	28.3	85	80	0	0	0	0	0						

**REMARKS**

Survey  
Division

# DRILLING REPORT

DATE: 12/27/96  
Report: 5

Well: NM "DP" ST. COM 63	Activity: DRLG	Spud Date: 12/22/96	CD: 5
Field: INDIAN BASIN PENN	TD: 1987	API No: 30-018-28284-03	
County: EDDY	BRK: NM	Estimate No: 682013	
OU:	ATD: 7.000	Hours: 2.75	Supervisor: JOHNSTON
Objective: CISCO DOLO	PSTD: 0	Class: Dev	Phone: (805) 383-4384
Lithology: / /	KB: 8	BOP Days: 0	Contractor: PETERSON 82
	GL: 4.000	IDC&P: 58.13	Daywork

DIRECTIONAL SURVEYS			
M Dpth	Inclination	Azimuth	DLB
1.000	0.75	0.0	0.00
1.500	1.00	0.0	0.00
535	0.50	0.0	0.00
531	0.75	0.0	0.00
193	0.50	0.0	0.00

WORK	
1.00	WOC
1.00	CMT W/35 EX CLASS "C"
1.00	WOC
0.50	CMT W/35 EX CLASS "C" AT 185'
1.00	WOC
1.00	CMT W/50 EX CLASS "C" AT 120'
1.00	WOC
0.50	CMT W/50 EX CLASS "C" AT 87' . CIRC 15 EX CMT
4.00	NO. CUT OFF, WELD ON WELLHEAD
4.00	NU BOP
0.50	TEST BOP 1200 PSI, OK
3.00	TR, TAGGED CMT AT 1485'
0.75	PU KELLY, INSTALL ROTATING HEAD RUBBER
1.25	DRLG CMT & PLUG
0.50	TEST CEG 1000 PSI, OK
0.25	DRLG CMT
2.75	DRLG
24.00	TOTAL HOURS

LAST SURVEY	
Measured Depth:	1.000
True Vertical Depth:	0.00
Inclination:	0.75
Azimuth:	0.00
North/South Coordinate:	0.00
East/West Coordinate:	0.00
Vertical Section:	0.00
Dev Log:	0.00
Survey Tool:	

MUD DATA			
Wt:	8.6	OE:	0
Viscosity:	28	MST:	0
PV:	0	pH:	8.5
YP:	0	Ptc:	0
10 Sec Gel:	0	Pt:	0
10 Min Gel:	0	Ch:	0
WL:	0	CA:	0
HTHP:	0	Ex Line:	0
FC:	0	Exc Star:	0
Solids:	0	Targ:	0
Daily Cost:	50	Cum:	50

TUBULARS			
PROP SIZE	PROP MD	ACTUAL SIZE	ACTUAL MD
3.500	0.500	0.000	0
7.000	6.500	0.000	0
9.875	1.500	0.000	0

ESTIMATE COSTS			
	MOH	CASH	TOTAL
DH:	\$110000	\$320000	\$430000
Comp:	\$20000	\$80000	\$100000
Total:	\$130000	\$400000	\$530000

ACTUAL COSTS			
	MOH	CASH	TOTAL
DH:	\$5000	\$10000	\$15000
Comp:	\$3000	\$2000	\$5000
Total:	\$8000	\$12000	\$20000
Daily:	\$0	\$1000	\$1000

## MUD MATERIAL

HYDRAULICS						
	Line Size	8K Lph	SPM	GPM	PSI	PSI
PUMP #1:	5.5	15	66	270	AV (DC): 0	PSI Drop: 0
PUMP #2:	0	0	0	0	AV (DP): 0	HPF#2: 0

SLOW PUMP RATES		
	PSI	SPM
PUMP #1:	0	0
PUMP #2:	0	0

BHAS	LENGTH	DEPTH IN	HOURS	TYPE	STRING WT	DRAG UP	DRAG DOWN	TORQUE
2	650	1800	2.75	PEND	62	62	62	0

DESCRIPTION: BIT, TRI-COLLAR, STAB. 28" DC

BITS																							
LN	BITS	MAKE	SIZE	TYPE	FROM	TO	FEET	HRS	ROP	WOB	RPM	N1	N2	N3	I	O	D	L	S	G	O	R	
2	2	SMITH	6.750	F-47H	1800	1987	67	2.75	24.4	55	80	11	11	12	0	0							
1	1	HPG2	12.25		0	1900	1900	53	29.3	65	80	0	0	0	0	0							

## REMARKS

Submit 3 copies to Appropriate District Office

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-103 Revised 1-1-89

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.	30-015-29284
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil / Gas Lease No.	OG-5108-1
7. Lease Name or Unit Agreement Name	NEW MEXICO 'DF' STATE COM.  11032
8. Well No.	3
9. Pool Name or Wildcat	INDIAN BASIN UPPER PENN/ UNDES.G. GLTA
10. Elevation (Show whether DF, RKB, RT,GR, etc.)	405g'

SUNDRY NOTICES AND REPORTS ON WELL  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL  GAS WELL  OTHER

2. Name of Operator: TEXACO EXPLORATION & PRODUCTION INC.

3. Address of Operator: P.O. Box 3109, Midland Texas 79702

4. Well Location  
Unit Letter G : 2000 Feet From The NORTH Line and 1650 Feet From The EAST Line  
Section 32 Township 21-S Range 23-E NMPM EDDY COUNTY

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPERATION <input type="checkbox"/>
OTHER: CORRECT WELL NAME <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

THE CORRECT WELL NAME IS: NEW MEXICO 'DF' STATE COM. No. 3.

PLEASE DROP THE 'NCT-1' FROM THE WELL NAME.

DEC 12 '96

C. C. D. ARTESIA, OFFICE

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

SIGNATURE C. Wade Howard TITLE Eng. Assistant DATE 12/10/96

TYPE OR PRINT NAME C. Wade Howard Telephone No. 688-4606

(This space for State Use) Jim W. Gunn District Supervisor

APPROVED BY Jim W. Gunn TITLE District Supervisor DATE 12/24/96

CONDITIONS OF APPROVAL, IF ANY:

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-101

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

AMENDED REPORT

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

1 Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. P.O. Box 3109, Midland Texas 79702		2 OGRID Number 022351
4 Property Code 11032-20028		3 API Number 30-015-29284
5 Property Name NEW MEXICO 'DF STATE COM. NGT4		6 Well No. 3

7 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	32	21-S	23-E		2000	NORTH	1650	EAST	EDDY

8 Proposed 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
9 Proposed Pool 1 79040 INDIAN BASIN, UPPER PENN PRO GAS					10 Proposed Pool 2 UNDESIGNATED GLORIETA				

11 Work Type Code N	12 WellType Code G	13 Rotary or C.T. ROTARY	14 Lease Type Code S	15 Ground Level Elevation 4059'
16 Multiple No	17 Proposed Depth 7300'	18 Formation PENN/GLORIETA	19 Contractor PETERSON	20 Spud Date 12/9/96

21 Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
≥ 12 3/4"	9 5/8	36#	1500'	650 SACKS	SURFACE
8 3/4	7	28#	6900'	900 SACKS	SURFACE

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

CEMENTING PROGRAM:

SURFACE CASING - 400 SACKS CLASS C W/ 4% GEL (13.5 PPG, 1.74 CF/S, 9.1 GW/S) F/B 250 SACKS CLASS C W/ 2% CACL2 (14.8 PPG, 1.34 CF/S, 6.3 GW/S).

PRODUCTION CASING - 1st STG: 500 SACKS 50/50 POZ H w/ 2% GEL, 5% SALT, 1/4# FC (14.2 PPG, 1.35 CF/S, 6.3 GW/S).

DV TOOL @ 3600' - 2nd STG: 300 SACKS 35/65 POZ CLASS H W/ 6% GEL, 5% SALT, 1/4# FLOCELE (12.4 PPG, 2.14 CF/S, 11.9 GW/S). F/B 100 SACKS CLASS H (15.6 PPG, 1.18 CF/S, 5.2 GW/S).

THIS WILL BE AN OPEN-HOLE COMPLETION. DRILL A 6 1/8" HOLE FROM 6900' TO 7300'. THERE ARE NO OTHER OPERATORS IN THIS QUARTER QUARTER SECTION.

Must RELOC in sufficient time to witness cementing the 9 5/8" casing

23 I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature

C. Wade Howard

Printed Name

C. Wade Howard

Title

Eng. Assistant

Date

11/25/96

Telephone

688-4606

OIL CONSERVATION DIVISION

Approved By:

Jim W. Brown

Title:

District Supervisor

Approval Date:

12-4-96

Expiration Date:

12-4-97

Conditions of Approval:

Attached

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

Instructions on back

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

Submit to Appropriate District Office

State Lease-4 copies  
Fee Lease-3 copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-29284		<sup>2</sup> Pool Code 79040		<sup>3</sup> Pool Name Indian Basin-Upper Penn PRO GAS	
<sup>4</sup> Property Code 11032		<sup>5</sup> Property Name New Mexico "DF" State Com. NCT-1			<sup>6</sup> Well Number 3
<sup>7</sup> GRID No. 22351		<sup>8</sup> Operator Name TEXACO EXPLORATION & PRODUCTION, INC.			<sup>9</sup> Elevation 4059

<sup>10</sup> Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	32	21-S	23-E		2000	North	1650	East	Eddy

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 640	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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.

**<sup>16</sup>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: November 20, 1996

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**<sup>17</sup>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: November 15, 1996

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

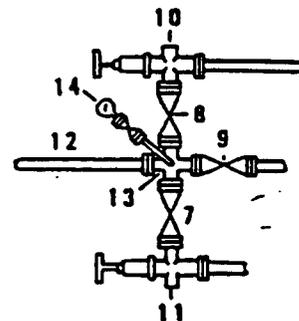
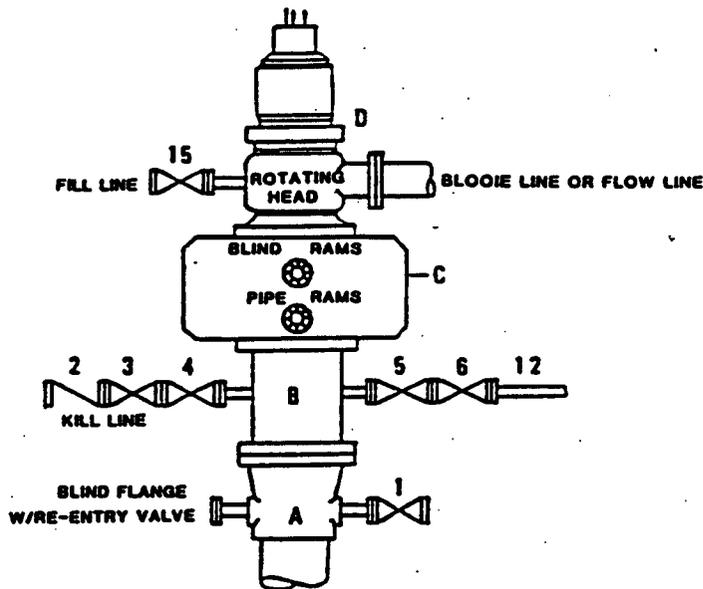
Certificate No.: 7254 John S. Piper

Sheet



**DRILLING CONTROL  
CONDITION II-B 3000 WP  
FOR AIR DRILLING OR  
WHERE NITROGEN OR AIR BLOWS ARE EXPECTED**

H<sub>2</sub>S TRIM REQUIRED  
YES \_\_\_\_\_ NO \_\_\_\_\_



**DRILLING CONTROL**

**MATERIAL LIST - CONDITION II - B**

- A Texaco Wellhead
- B 3000# W.P. drilling spool with a 2" minimum flanged outlet for kill line and 3" minimum flanged outlet for choke line.
- C 3000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 3000# W.P. control lines (where sub-structure height is adequate, 2 - 3000# W.P. single ram type preventers may be utilized).
- D Rotating Head with fill up outlet and extended Bleed Line.
- 1,3,4, 7,8, 2" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 2 2" minimum 3000# W.P. back pressure valve.
- 5,6,9 3" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve.
- 12 3" minimum schedule 80, Grade "B", seamless line pipe.
- 13 2" minimum x 3" minimum 3000# W.P. flanged cross.
- 10,11 2" minimum 3000# W.P. adjustable choke bodies.
- 14 Cameron Mud Gauge or equivalent ( location optional in choke line).
- 15 2" minimum 3000# W.P. flanged or threaded full opening steel gate valve, or Halliburton Lo Torc Plug valve.



**TEXACO, INC.**  
MIDLAND DIVISION  
MIDLAND, TEXAS



SCALE	DATE	EST. NO.	DRG. NO.
DRAWN BY			
CHECKED BY			
APPROVED BY			

EXHIBIT C

**WRS COMPLETION REPORT**  
 COMPLETIONS SEC 32 TWP 21S RGE 23E  
 P1# 30-T-0013 03/27/97 30-015-29284-0000 PAGE 1

NMEX EDDY \* 2000FNL 1650FEL SEC  
 STATE COUNTY FOOTAGE SPOT  
 TEXACO EXPL & PROD D DG  
 OPERATOR WELL CLASS INIT FIN  
 3 NEW MEXICO 'DF' STATE COM NCT-1  
 WELL NO. LEASE NAME  
 4073KB 4059GR INDIAN BASIN  
 OPER ELEV FIELD/POOL/AREA  
 API 30-015-29284-0000  
 LEASE NO. PERMIT OR WELL I.D. NO.  
 12/22/1996 01/26/1997 ROTARY VERT GAS  
 SPUD DATE COMP. DATE TYPE TOOL HOLE TYPE STATUS  
 7300 PNSLVN U PETERSON DRLG 2 RIG SUB 13  
 PROJ. DEPTH PROJ. FORM CONTRACTOR  
 DTD 7000 FM/TD CISCO  
 DRILLERS T.D. LOG T.D. PLUG BACK TD OLD T.D. FORM T.D.

LOCATION DESCRIPTION

20 MI SW/LAKEWOOD, NM

CASING/LINER DATA

CSG 9 5/8 @ 1500 W/ 650 SACKS  
 CSG 7 @ 6920 W/ 1050 SACKS

TUBING DATA

TBG 3 1/2 AT 6807

INITIAL POTENTIAL

IPF 3145 MCFD 28/64CK 24HRS  
 CISCO OPENHOLE 6920- 7000  
 TP 440 GLR - DRY

P/L CON NOT RPTD  
 FIELD /RESERVOIR  
 /PENNSYLVANIAN U

FCP: PKR  
 GAS GTY - NOT RPTD

TYPE	FORMATION	LTH	TOP	DEPTH/SUB	BSE	DEPTH/SUB
LOG	SN ANDRS		382	3677		
LOG	GLORIETA		1806	2253		
LOG	YESO		1876	2183		
LOG	BN SP LM		3200	859		

CONTINUED IC# 300157061096

COMPLETIONS SEC 32 TWP 21S RGE 23E  
PI# 30-T-0013 03/27/97 30-015-29284-0000 PAGE 2

TEXACO EXPL & PROD D DG  
3 NEW MEXICO 'DF' STATE COM NCT-1

TYPE	FORMATION	LTH	TOP	DEPTH/SUB	BSE	DEPTH/SUB
LOG	BONE SPG SS		5807	-1748		
LOG	WOLFCAMP		5922	-1863		
LOG	CISCO		6830	-2771		
SUBSEA MEASUREMENTS FROM GR						

PRODUCTION TEST DATA

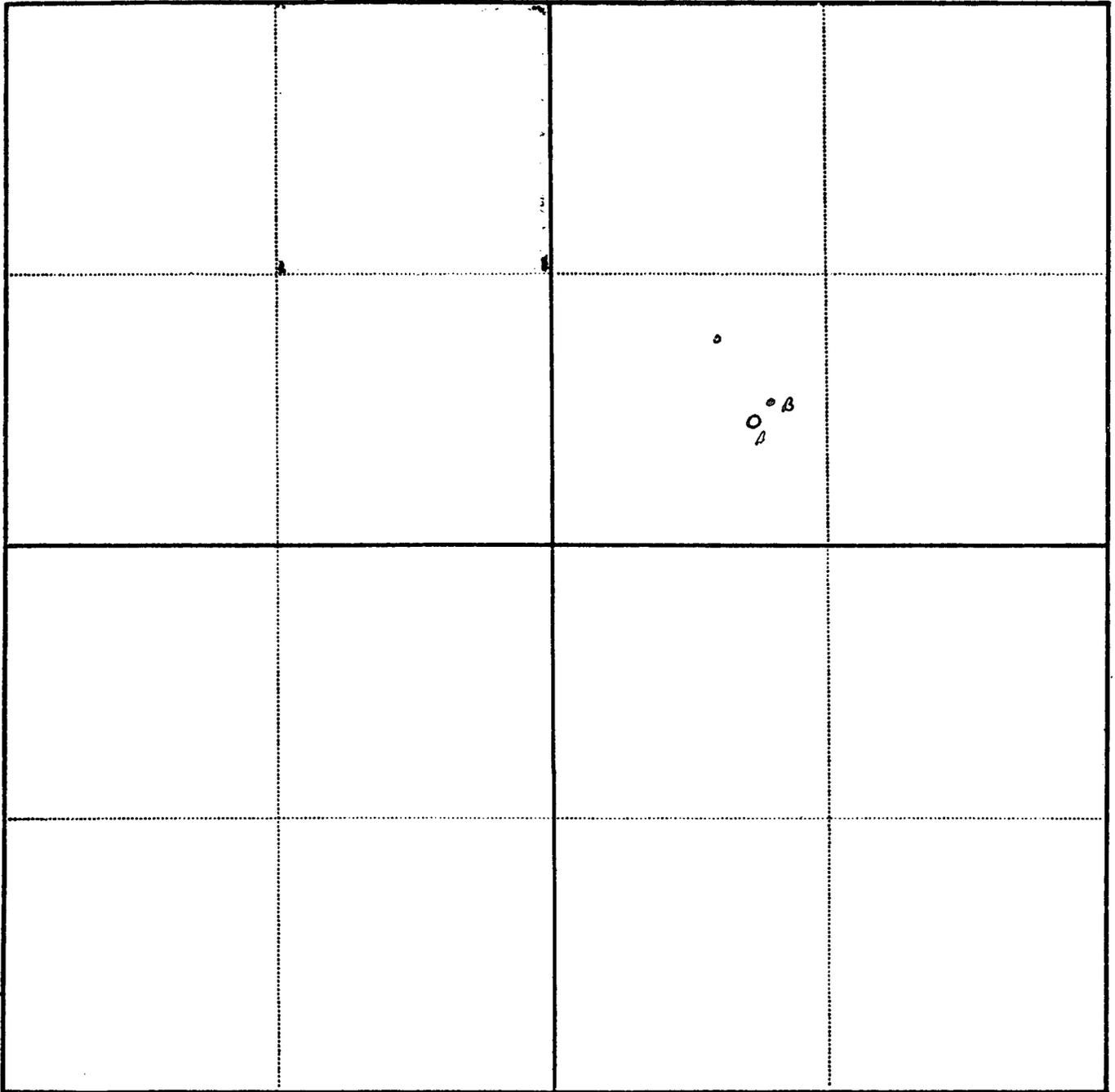
PTF 3145 MCFD 48/64CK 24HRS  
CISCO OPENHOLE 6920- 7000  
OPEN 6920- 7000  
TP 440  
NATURAL

LOGS AND SURVEYS /INTERVAL, TYPE/

LOGS 200- 6920 NEUT 200- 6920 DENL 200- 6920 GR  
LOGS 1502- 6920 GR

DRILLING PROGRESS DETAILS

TEXACO EXPL & PROD  
BOX 3109  
MIDLAND, TX 79702  
915-688-4100  
12/06 LOC/1996/  
12/30 DRLG 3669  
01/06 DRLG 6900  
01/14 7000 TD, SI  
03/21 7000 TD, WOPT  
03/26 RIG REL 01/08/97  
7000 TD  
COMP 1/26/97, IPF 3145 MCFGPD, (DRY),  
28/64 CK, GAS GTY (NR),  
FTP 440, FCP PKR  
PROD ZONE - PENNSYLVANIAN U 6920-7000  
(OPENHOLE)  
NO CORES OR TESTS RPTD



- (A) Surface Loc. 2000' ENL-1650' FEL
  - (B) Sub-Surf. Loc. @ 6791' is 1920' ENL-1630' FE
  - (C) BHL @ 1674' ENL-1881' FEL
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