

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Conoco Inc.

## a. ADDRESS AND TELEPHONE NO

10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements \*)

At surface

2130' FSL &amp; 1650' FEL

At proposed prod. zone

2130' FSL &amp; 1650' FEL Unit 5

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

## 5. LEASE DESIGNATION AND SERIAL NO

LC 031621A

## 6. IF INDIAN, ALLOTTEE OR TRIBE NAME

## 7. UNIT AGREEMENT NAME

## 8. FARM OR LEASE NAME WELL NO

Barber Federal

## 9. API WELL NO

2

## 10. FIELD AND POOL, OR WILDCAT

Monument Blinbry/Paddock

## 11. SEC. T., R., M., OR BLK

AND SURVEY OR AREA  
Sec. 7, T20S, R37E

## 12. COUNTY OR PARISH

Lea

## 13. STATE

NM

## 5. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

## 16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 8. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

## 19. PROPOSED DEPTH

6000'

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3551' GR

Lea County Controlled Water Basin

## 22. APPROX. DATE WORK WILL START\*

3-1-98

## 23

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	M-50, 8-5/8"	23#	1025'	440 sxs, circ.
7-7/8"	K-55, 5-1/2"	15.5#	5850'	1360 sxs, circ.

It is proposed to drill a vertical wellbore as a Monument Blinbry/Paddock producer according to the plan submitted in the following attachments:

1. Well Location and Acreage Dedication Plat (C-102)
2. Proposed Well Plan Outline
3. Surface Use Plan
4. Exhibit A: Vicinity Map
5. Exhibit B: Location Verification Map
6. Exhibit C.1-C.2: Flow Line and Electric Line Plats
7. Exhibit D: Trailer Mounted Rig Layout Drawing
8. BOP & Choke Manifold Specifications
9. H2S Drilling Operations Plan
10. Surface owner communications

An archeological survey will be submitted as soon as completed.

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described above and as covered by BLM Bond File No. ES-0085.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

## 24.

SIGNED

Mike L. Mankin

TITLE

Mike L. Mankin

Right of Way Agent

DATE

1-26-98

(This space for Federal or State office use)

PERMIT NO

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

(ORIG. SGN.) ARMANDO A. LOPEZ

TITLE

ADM. MINERALS

DATE

1-27-98

\*See Instructions On Reverse Side

The 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Handwritten initials: "H. Lopez"

Handwritten initials: "Q"

RECEIVED

JUN 28 98

BLM  
ROSWELL, NM



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

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30-025-34330	'Pool Code 46990/47080	'Pool Name Monument Blinebry/Monument Paddock
'Property Code 20099	'Property Name BARBER FEDERAL	'Well Number 2
'OGRID No. 005073	'Operator Name CONOCO INC.	'Elevation 3551'

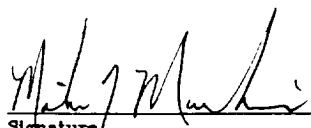
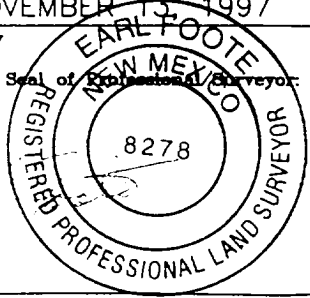
<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	7	20-S	37-E		2130	SOUTH	1650	EAST	LEA

<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
'Dedicated Acres 40		'Joint or Infill		'Consolidation Code		'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					LAT.=32°35'11" LONG.=103°17'15"	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>   Signature Mike L. Mankin Printed Name Right of Way Agent Title 1-22-98 Date	
						<sup>18</sup> SURVEYOR CERTIFICATION <i>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 best of my belief.</i>  NOVEMBER 13, 1997 Date of Survey Signature and Seal of Professional Land Surveyor:  Certificate Number 8278	

# PROPOSED WELL PLAN OUTLINE

WELL NAME  
LOCATION

Barber Federal No. 2  
1650 FEL & 2130 FSL, Sec 7-T20S-R37E, Lea County, New Mexico

Ground Level  
Kelly Bushing:

Depth MD	FORMATION TOPS	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING PROGRAM	FRAC GRAD	FORM PRES. GRAD.	Mud Weight & Type	Days
0		Possible Hole Enlargement & Sloughing		12-1/4"			Normal	Fresh spud mud	
1000	RUSTLER 971'				8-5/8", 23#, M-50 ST&C @ 1025'				
	TOPOF SALT 1066'			7-7/8"					
2000		Washouts in Salt Section						10 ppg brine	3
	YATES 2430'		H2S Monitor on at 2300'						
	7 RIVERS 2690'								
3000					Top of 2nd stage tail cement at 3000'				
	QUEEN 3200'								
	PENROSE 3260'								
	GRAYBURG 3460'				DV Tool @ 3500'				
4000	SAN ANDRES 3780'	Barber Federal No. 1 lost 10 - 15 BPH in the San Andres with complete losses starting at 4315'.			Top of "tail" cement at 3500'			Mud up with salt gel, starch & LCM if dictated by losses.	
5000									
	GLORIETA 5100'								
	PADDOCK 5160'								
	BLINEBRY 5550'		GR-CAL-DLL-MLL and FDC-CNL-PE 2400'-TD. Pull GR-CAL to surface casing.		5-1/2", 15.5#, K-55 LT&C @ 5850'		Normal		12
6000	TD @ 5850'				1360 sx, circ.				

DATE 20-Jan-98

APPROVED

  
Jim Tietema, Drilling Engineer

Joe Miller, Reservoir Engineer

Ray Hinchcliff, Production Engineer

**Well Name** : Barber Federal #2

**Location** : 1650' FEL & 2130' FSL Sec 7, T-20S, R-37E, Lea County, New Mexico

**Casing Program** :

**Surface** 8 5/8" casing in 12 1/4" Hole at 1025 ft.

**Production** 5 1/2" casing in 7 7/8" Hole at 5850 ft.

**Cementing Program** :

**Surface**

**Lead** 240 sacks Class C Mixed at 12.7 ppg  
**Additives** 35:65:6 (Poz:Cem:Gel) + 2% CACL2  
+ 0.25 pps Cello-Flake

**Tail** 200 sacks Class C Mixed at 14.8 ppg  
**Additives** 2% A-7P

**Production**

**1<sup>ST</sup> Stage**

**Tail** 530 sacks Class C Mixed at 14.8 ppg  
**Additives** 1.1% FL-62 + 1% BA-58 + 3% Salt + 0.3% CD-32  
+ 0.2% SMS  
**Free Water** 0 % **Fluid Loss** 45 cc/30 min.

**2<sup>nd</sup> Stage**

**Lead** 620 sacks Class C Mixed at 12 ppg  
**Additives** 16% Gel + 0.4% CD-32 + 0.2% SMS  
**Tail** 210 sacks Class C Mixed at 14.8 ppg  
**Additives** 2% CACL2

**SURFACE USE PLAN  
Conoco Inc.**

**Barber Federal #2**

The following is required information concerning the possible effect which the drilling of this well may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items of this plan.

1. Existing Roads

- A. The proposed well site is 2130' FSL & 1650' FEL, Sec. 7, T20S, R37E, Lea County, New Mexico.
- B. Exhibit "A" is a Vicinity road and well map. Directions to the location are as follows:  
  
West of Monument 2.4 miles then south 1.7 miles, east .4 mile then south .3 mile and east to location.
- C. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Roads

- A. No new access road will be required.
- B. No turnout required.
- C. No culverts rerquired.
- D. No gates, cattleguards, or fences required.

3. Topographic Map and Well Location

A 7.5" quadrangle topo map of the area is included as Exhibit "B".

4. Additional Right-of-Ways

EXHIBITS C.1 & C.2 are survey plats for the flowline and powerline right-of way.

5. Water Supply

Fresh and brine water will be secured from a water station located in Eunice. All water will be trucked from Eunice and follow the above described route to location.

6. Source of Construction Materials

Caliche will come from a pit located in the SW/4 NE/4 of Sec. 8, T20S, R37E, Lea County, NM.

7. Methods of Handling Waste Disposal

Waste Disposal: Well cuttings will be disposed in reserve pit. Barrel trash containers to be in accessible locations within drill site area during drilling and completion procedures. All detrimental waste will be hauled away. See Exhibit "D" (rig layout) for location of pits. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. Any produced water will be collected in tanks until hauled to an approved disposal system, or separate disposal applications will be submitted to state for appropriate approval.

8. Ancillary Facilities

None.

9. Wellsite Layout

See attached Wellsite Layout. The V-door faces South. The reserve pit will be lined with plastic and the pad and pits are staked. All unguarded pits containing liquids will be fenced and any unguarded pit containing liquids will be fenced.

10. Plans for Restoration of Surface

Reserve pits will be rehabilitated once drilling fluids have been allowed to evaporate to the point the pits are dry enough for backfilling and leveling. In the event drilling fluids will not evaporate in areasonable time period, the fluids will be removed and transported by tank truck to a state approved disposal facility. Backfilling and leveling of the location will be completed within a time period of one year upon cessation of drilling operations.

11. Surface Ownership

Fee. A letter verifying damage settlement is attached.

12. Other Information

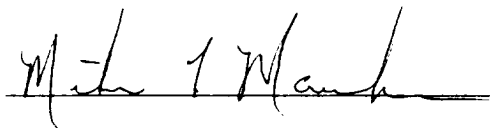
An archaeological survey will be conducted for these right-of-ways and will be provided upon completion.

13. Operator's Representative and Certification

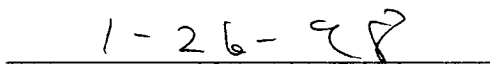
The person who can be contacted concerning compliance of this Surface Use Plan is:

**Mike L. Mankin**  
**10 Desta Drive, Suite 430E**  
**Midland, Texas 79705**  
**(915) 686-5794**

*I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; that I am familiar with the conditions which currently exist; that the statements made in this plan, are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Conoco Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.*

A handwritten signature in black ink, appearing to read "Mike L. Mankin", written over a horizontal line.

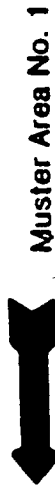
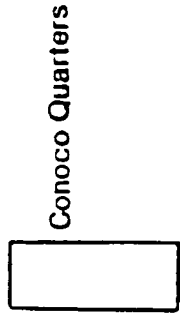
Mike L. Mankin  
Right-of-Way Agent

A handwritten date "1-26-98" in black ink, written over a horizontal line.

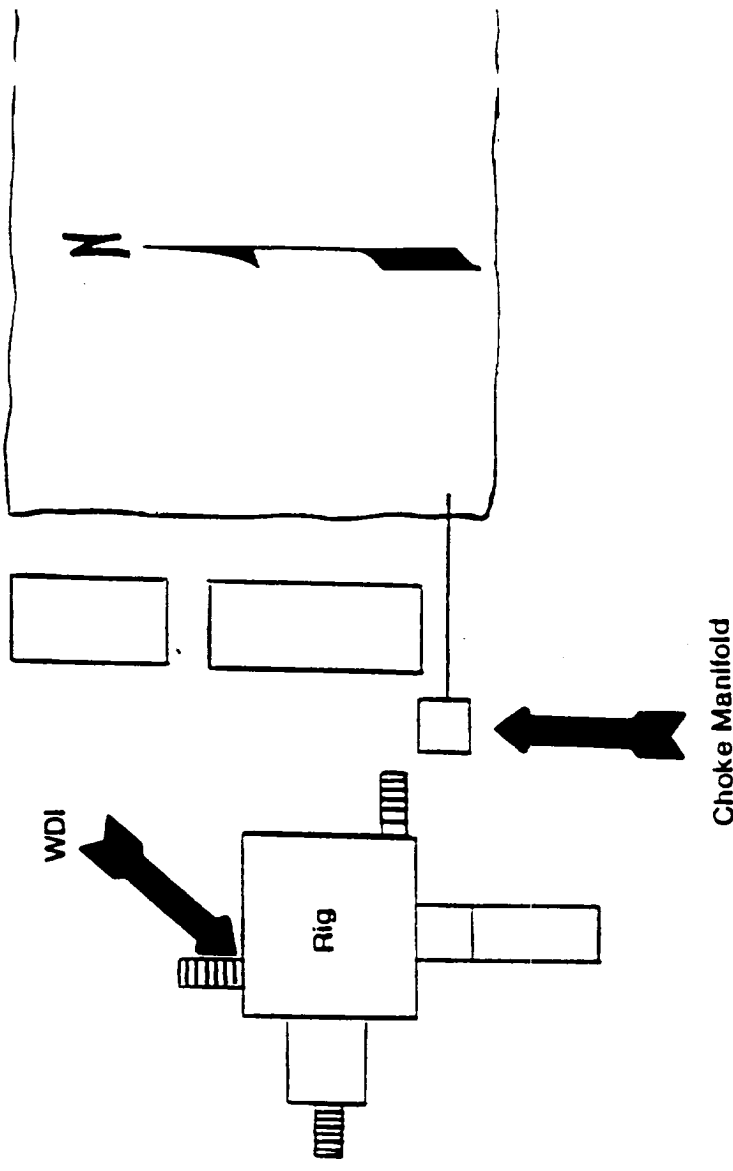
Date

WELLSITE LAYOUT

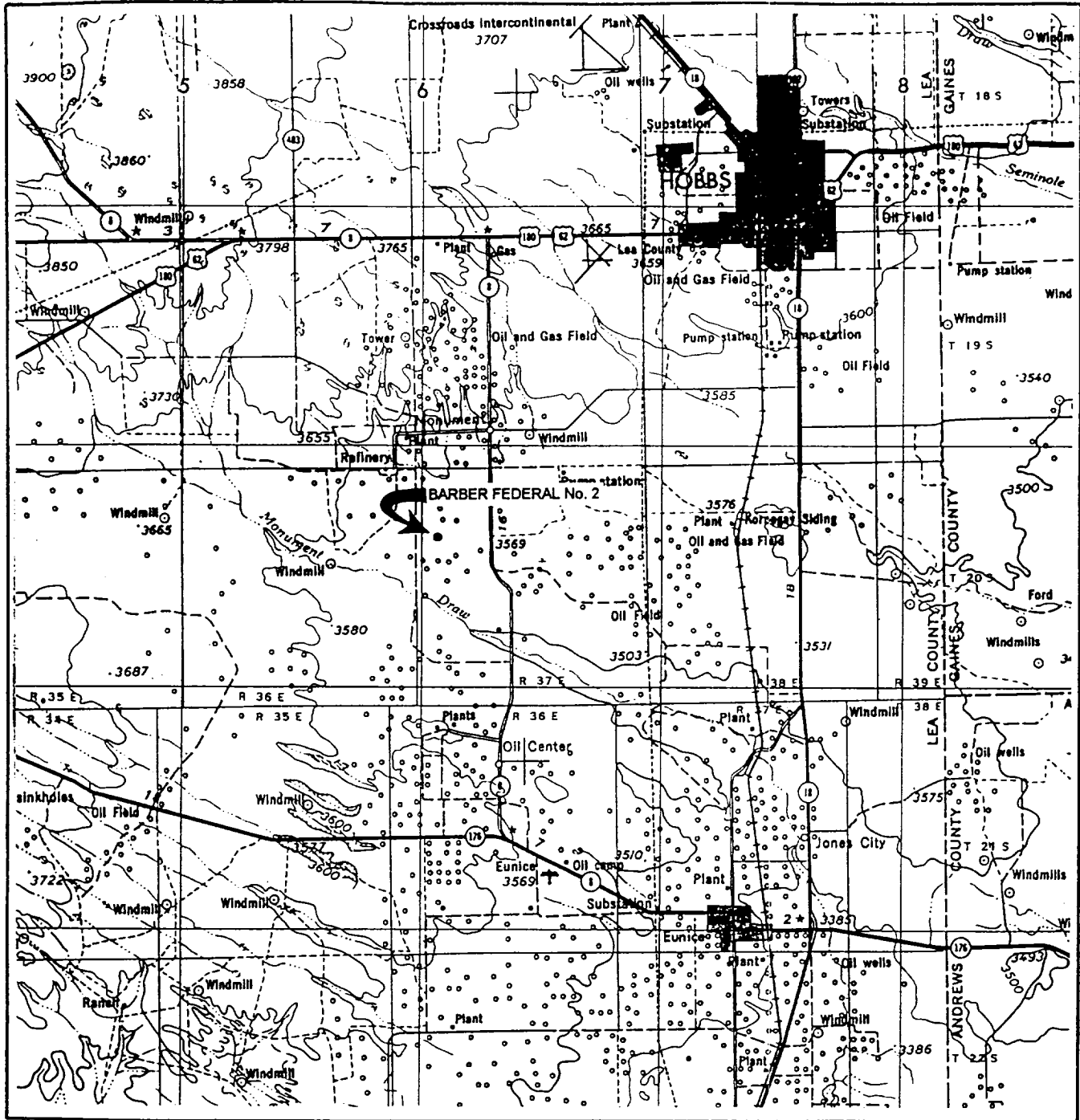
WDI



Terrain is flat, and covered with native grasses  
Two of the three WDI (wind direction indicator) locations will be utilized  
(Prevailing winds are SW to NE)



# VICINITY MAP



SCALE: 1" = 4 MILES

WTC 45073

SEC. 7 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 2130' FSL & 1650' FEL

ELEVATION 3551'

OPERATOR CONOCO INC.

LEASE BARBER FEDERAL NO. 2

**WEST TEXAS CONSULTANTS, INC.**

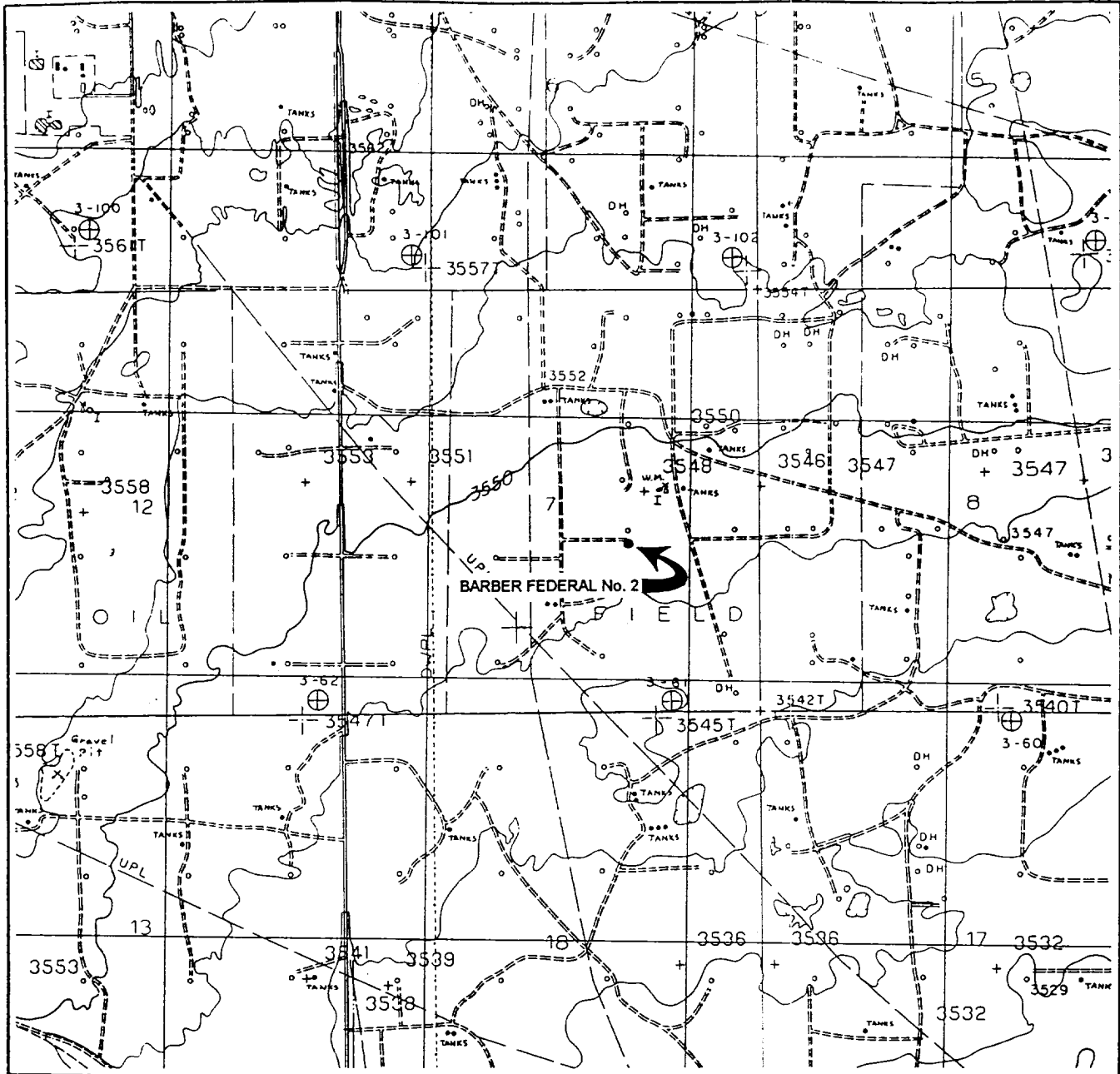
ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800

EXHIBIT A

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'  
WTC 45073

SEC. 7 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 2130' FSL & 1650' FEL

ELEVATION 3551'

OPERATOR CONOCO INC.

LEASE BARBER FEDERAL NO. 2

USGS TOPO MAP  
MONUMENT SOUTH, NEW MEXICO

CONTOUR INTERVAL 5'

**WEST TEXAS CONSULTANTS, INC.**

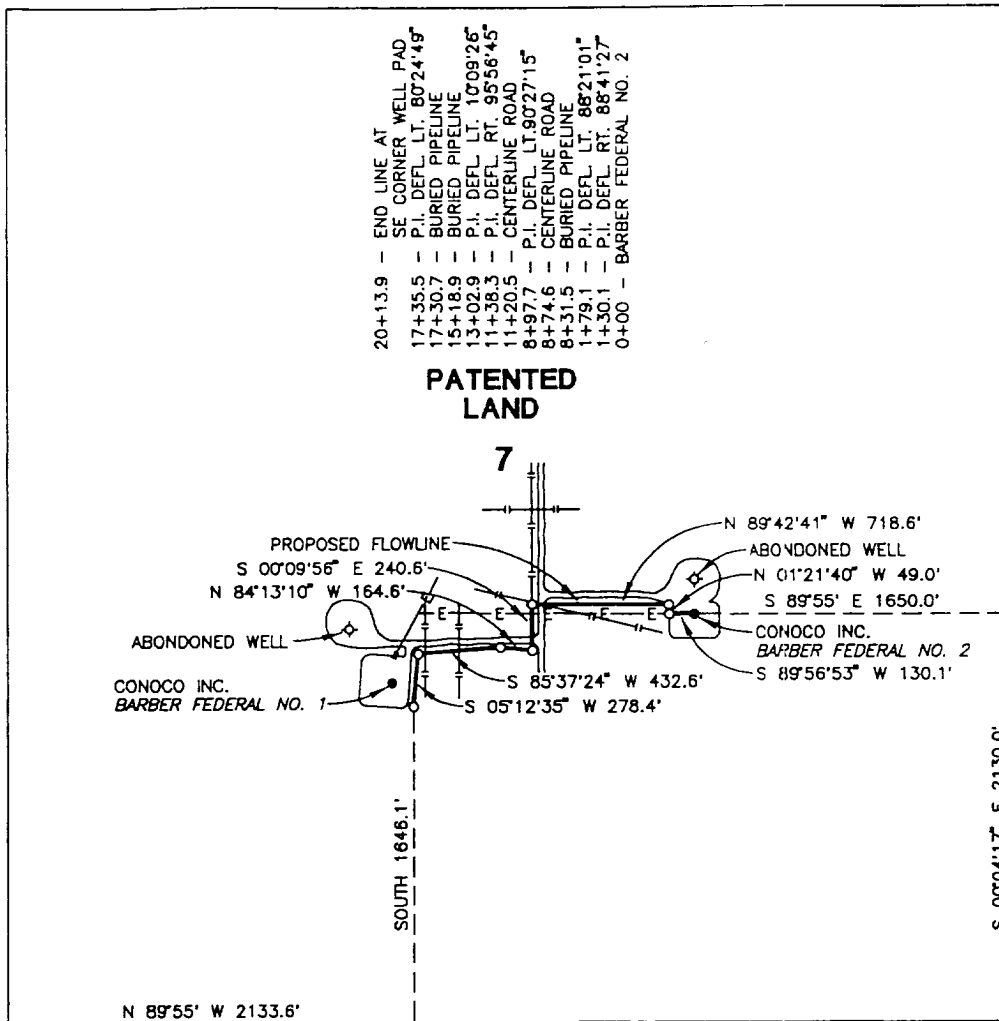
ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800

EXHIBIT B

SECTION 7, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO



CENTERLINE DESCRIPTION OF A PROPOSED FLOWLINE:

BEGINNING at Conoco Inc. Well BARBER FEDERAL NO. 2, from which point the southeast corner of Section 7, T-20-S, R-37-E, N.M.P.M., Lea County, New Mexico bears S 89° 55' E, 1650.0 feet and S 00° 47' 17\" E, 2130.0 feet;

THENCE with proposed centerline as follows: S 89° 56' 53\" W, 130.1 feet to a bend; N 01° 21' 40\" W, 49.0 feet to a bend; N 89° 42' 41\" W, 718.6 feet to a bend; S 00° 09' 56\" E, 240.6 feet to a bend; N 84° 13' 10\" W, 164.6 feet to a bend; N 85° 37' 24\" W, 432.6 feet to a bend; S 05° 12' 35\" W, 278.4 feet to a point at the southeast corner of a caliche well pad for Conoco Well BARBER FEDERAL NO. 1, for the end of this line, from which point the southwest corner of Section 7 bears South, 1646.1 feet and N 89° 55' W, 2133.6 feet.

PROPOSED FLOWLINE TO SERVE  
BARBER FEDERAL NO. 2

I hereby certify that this plat was prepared from an actual survey made on the ground and meets or exceeds all requirements for land surveys as specified by the state of New Mexico.

*Earl Foote*



Earl Foote  
Registered Professional Surveyor  
New Mexico Certificate No. 8278

CONOCO INC.

2013.9 feet of proposed flowline in  
Section 7, T-20-S, R-37-E, N.M.P.M.,  
Lea County, New Mexico

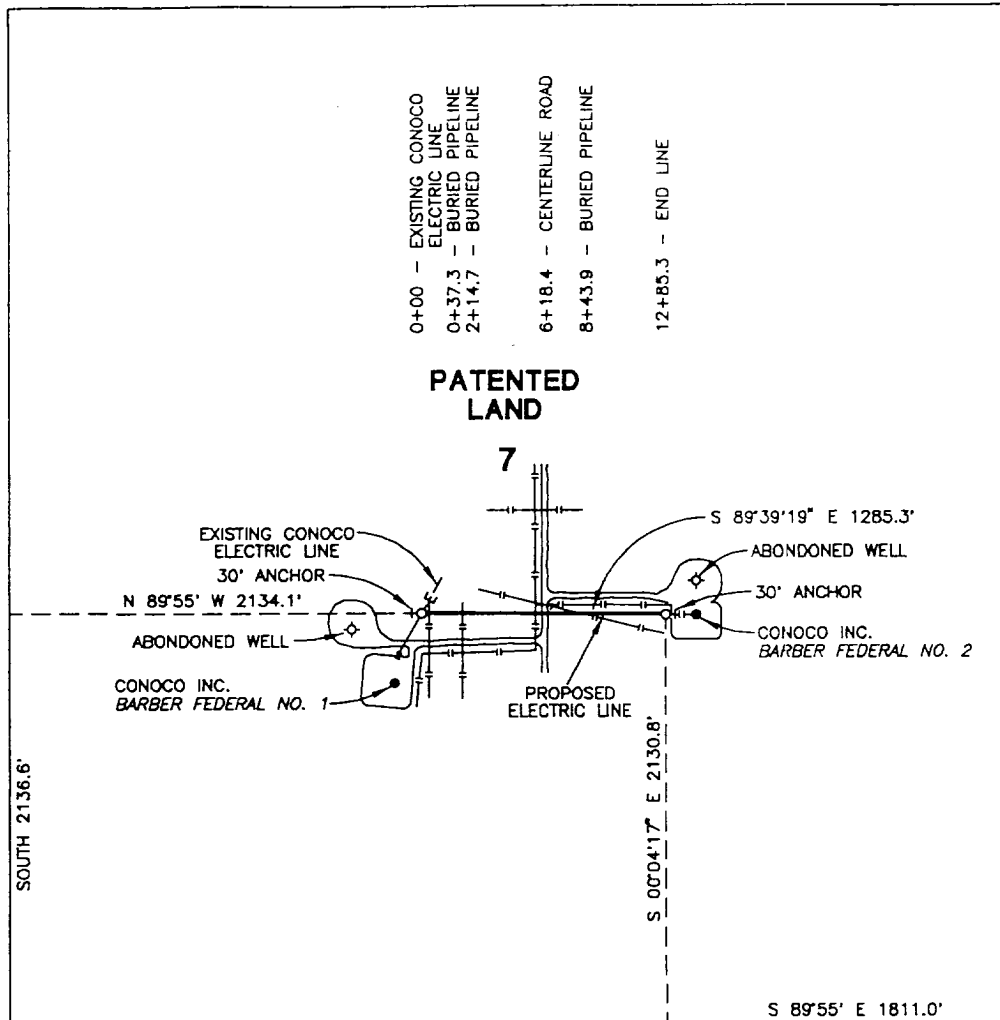
WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 11-13-97	Date: 11-19-97	Scale: 1" = 1000'
WTC No. 45073	Drawn By: R.S.	Sheet 1 of 1

SECTION 7, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO



CENTERLINE DESCRIPTION OF A PROPOSED ELECTRIC LINE:

BEGINNING at an existing pole, from which point an anchor easement bears N 89° 39' 19" W, 30.0 feet also from said beginning point the southwest corner of Section 7, T-20-S, R-37-E, N.M.P.M., Lea County, New Mexico bears N 89° 55' W, 2134.1 feet and South, 2136.6 feet;

THENCE with proposed centerline, S 89° 39' 19" E, 1285.3 feet to a point for the end of this line, from which point an anchor easement bears S 89° 39' 19" E, 30.0 feet also from said end point, the southeast corner of Section 7 bears S 00° 04' 17" E, 2130.8 feet and S 89° 55' E, 1811.0 feet.

PROPOSED ELECTRIC LINE TO SERVE  
BARBER FEDERAL NO. 2

I hereby certify that this plat was prepared from an actual survey made on the ground and meets or exceeds all requirements for land surveys as specified by the state of New Mexico.

*Earl Foote*



Earl Foote  
Registered Professional Surveyor  
New Mexico Certificate No. 8278

CONOCO INC.

1285.3 feet of proposed electric line in  
Section 7, T-20-S, R-37-E, N.M.P.M.,  
Lea County, New Mexico

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 11-13-97	Date: 11-19-97	Scale: 1" = 1000'
WTC No. 45073	Drawn By: R.S.	Sheet 1 of 1

# TRAILER - MOUNTED RIG LAYOUT

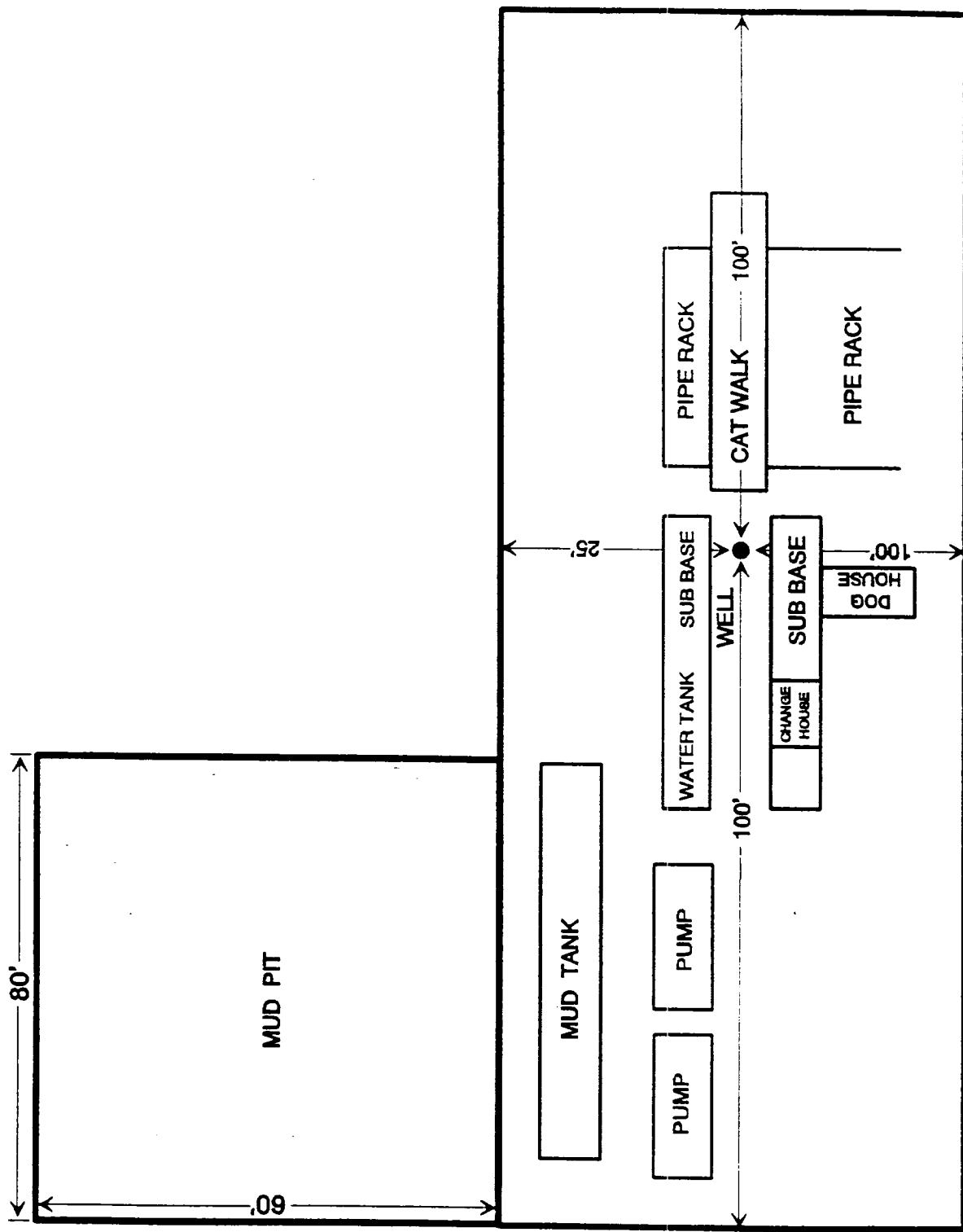
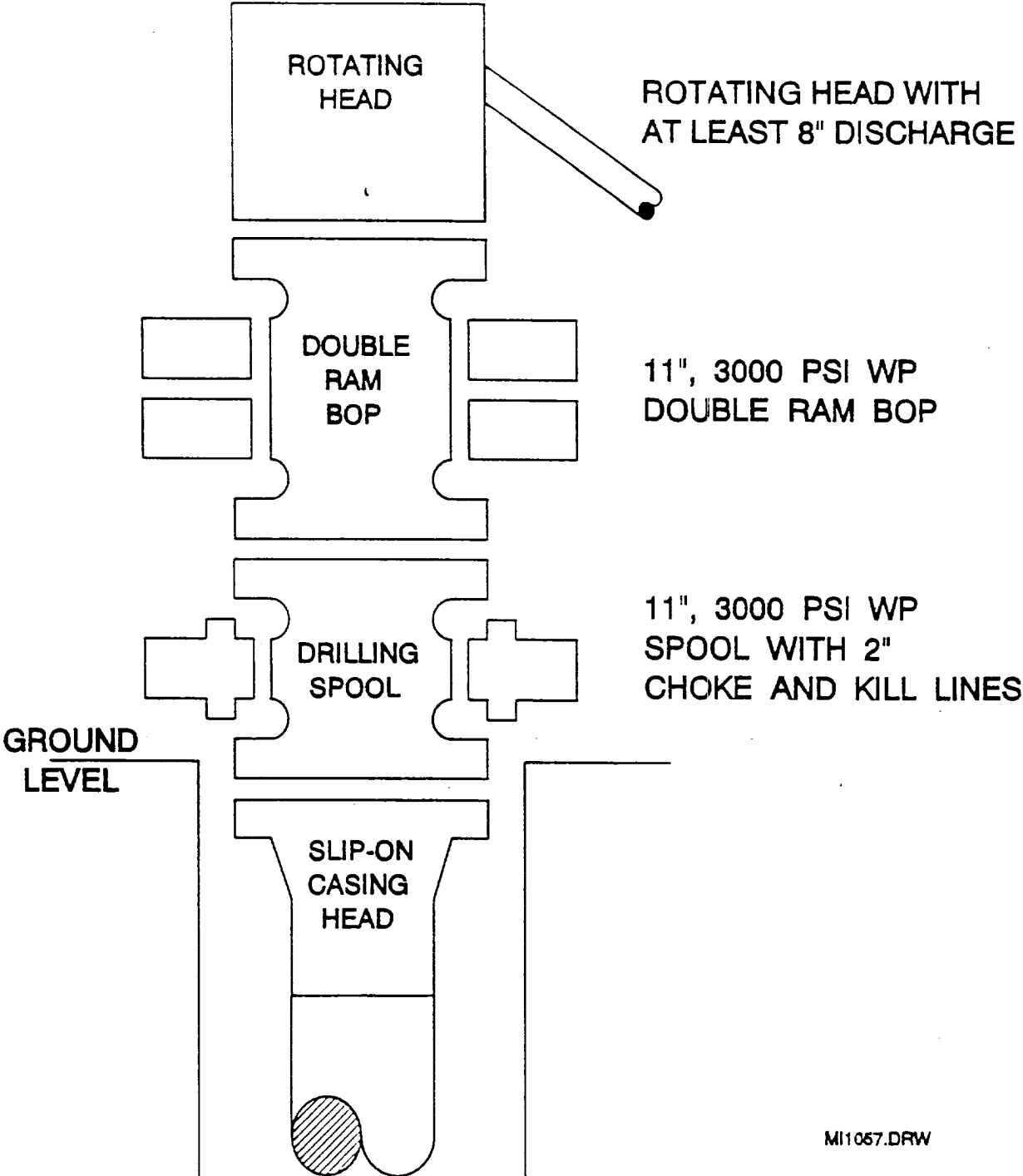
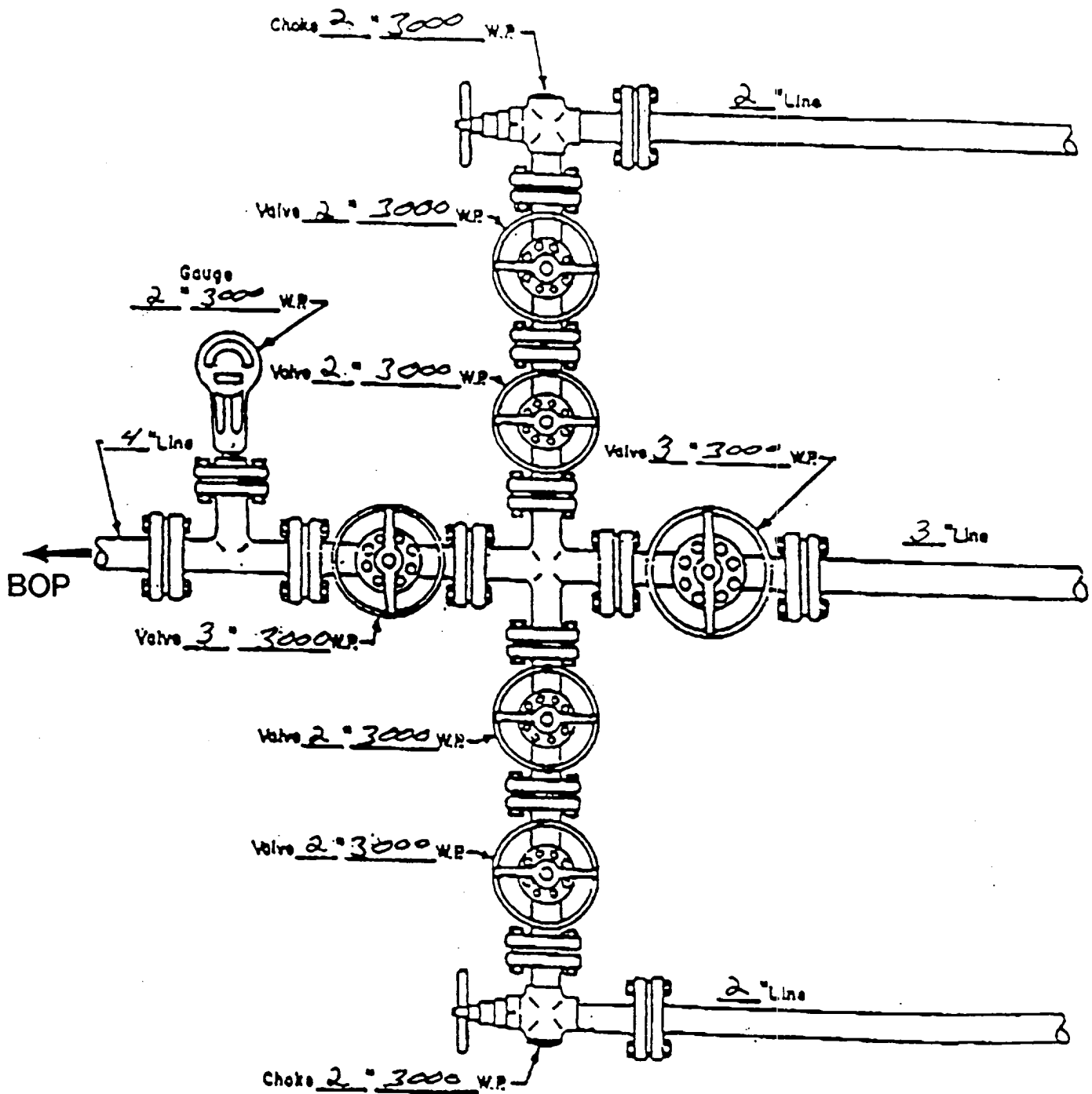


EXHIBIT D

# BOP SPECIFICATIONS



# CHOKE MANIFOLD DIAGRAM



MANIFOLD  
3000 #W.P.

- ☒ Manual
- ☐ Hydraulic

## **H2S DRILLING OPERATIONS PLAN**

### **I. Hydrogen Sulfide Training**

All contractors and subcontractors employed by Conoco will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. Safety precautions
3. Operations of safety equipment and life support systems.

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H<sub>2</sub>S on metal components in the system, especially high tensile strength tubulars are to be used.
2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

### **II. H2S EQUIPMENT AND SYSTEMS**

#### **1. Safety Equipment**

The following safety equipment will be on location:

- A. Wind direction indicators as seen in attached diagram.
- B. Automatic H<sub>2</sub>S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the dog house and at briefing areas as seen in the attached diagram.

## **2. Well Control Systems**

### **A. Blowout Prevention Equipment**

Equipment includes but is not limited to:

- a. pipe rams to accomodate all pipe sizes
- b. blind rams
- c. choke manifold
- d. closing unit
- e. flare line and means of ignition

### **B. Communication**

The rig contractor will be required to have two-way communication capability. Conoco will have either land-line or mobile telephone capabilities.

### **C. Mud Program**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

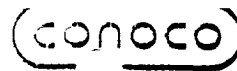
### **D. Drill Stem Tests**

There are no drill stem tests proposed for this well.

## **III. WELL SITE DIAGRAM**

A complete well site diagram including the following information is attached:

- 1. Rig orientation
- 2. Terrain
- 3. Briefing areas
- 4. Ingress and egress
- 5. Pits and flare lines
- 6. Caution and danger signs
- 7. Wind indicators and prevailing wind direction



Mike L. Mankin  
Right of Way Agent  
Right of Way and Claims

Conoco Inc.  
10 Desta Drive, Suite 430E  
Midland, Texas 79705  
(915) 686-5794

January 26, 1998

Bureau of Land Management  
P. O. Box 1778  
620 E. Greene Street  
Carlsbad, New Mexico 88221-1778

Attn: Mr. Barry Hunt, Surface Protection Specialist

**Re: Settlement for Well Location and Appurtenances  
Barber Federal Well No. 2  
Section 7, T20S, R37E  
Lea County, New Mexico**

Dear Mr. Hunt:

By this letter Conoco Inc. has made settlement with surface owner for the construction of the above referenced location and appurtenances.

If you have any questions, please contact me at 915-686-5794.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike L. Mankin", with a long horizontal flourish extending to the right.

Mike L. Mankin

cc: File