

N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

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OMB No. 1004-0136  
Expires November 30, 2000

JUN 07 2004

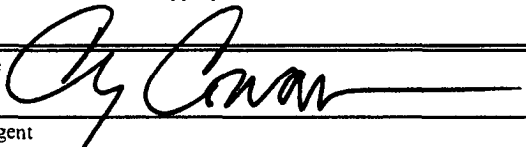
APPLICATION FOR PERMIT TO DRILL OR REENTER ~~OOD-ARTESIA~~

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NM-86063</b>	
b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator <b>Yates Drilling Company</b>		7. If Unit or CA Agreement, Name and No.	
3A. Address <b>105 South Fourth Street Artesia, New Mexico 88210</b>		8. Lease Name and Well No. <b>Pecos River Deep Unit #11</b>	
3b. Phone No. (include area code) <b>(505) 748-1471</b>		9. API Well No. <b>30-015-33459</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>1980' FSL and 660' FWL</b> At proposed prod. Zone <b>Same</b>		10. Field and Pool, or Exploratory <b>McMillan Morrow</b>	
14. Distance in miles and direction from nearest town or post office* <b>Approximately 23 miles southeast of Artesia, New Mexico.</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>Section 13, T20S-R26E</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>660'</b>		12. County or Parish <b>Eddy County</b>	
16. No. of Acres in lease <b>140</b>		13. State <b>NM</b>	
17. Spacing Unit dedicated to this well <b>All of section.</b>			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>.8 of mile</b>		20. BLM/BIA Bond No. on file <b>586000</b>	
19. Proposed Depth <b>10750'</b>			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3302' GL</b>		22. Estimated duration <b>45 days</b>	
22. Approximate date work will start* <b>ASAP</b>			

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |                                                                                                                                                 |                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                                | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).   |
| 2. A Drilling Plan.                                                                                                                             | 5. Operator certification.                                                                        |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized office. |

25. Signature 	Name (Printed/Typed) <b>Cy Cowan</b>	Date <b>4/15/04</b>
Regulatory Agent		
Regulatory Agent		
Approved by (Signature) <b>/s/ Joe G. Lara</b>	Name (Printed/Typed) <b>/s/ Joe G. Lara</b>	Date <b>JUN 04 2004</b>
Title <b>ACTING FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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, are attached.

**APPROVAL FOR 1 YEAR**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on reverse)

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

**Carlsbad Controlled Water Bench**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
Acting Director  
Oil Conservation Division

11 June 2004

Yates Petroleum Corp.  
105 South 4th Street  
Artesia, New Mexico 88210

RE: Pit Permit - Pecos River Deep Unit # 11      1980'FSL & 6600FWL      SEC-13 T-20S R-26E

The Oil Conservation Division of Artesia is in receipt of your application for permit to drill. Construction of a pit(s) for the purpose of drilling is approved under your current "General Plan" with the following provisions:

1. Construction and closing of pit(s) must meet the criteria of Rule 19.15.2.50 and the Pit Guidelines.
2. The pit is not located in any watercourse, lakebed, sinkhole, playa lake, or wetland.
3. Notice is to be given to the OCD prior to construction of the pit(s).
4. Pit(s) must meet all requirements of approved plan.
5. Liner must be a minimum of 12 mil. woven.
6. Depth to groundwater may cause the pit's contents and the liner to be removed and disposed of in a manner approved by the Division.
7. Pit encapsulations must meet all specific criteria including, but not limited to:
  - A. Site evaluation
  - B. Amount of and type of cover
  - C. Drill cuttings will be sampled as per guidelines. Notify OCD 48 hours prior to any sampling event
  - D. In the event that the integrity of the pit lining is breached in a manner such that soil contamination would result, the contents of the pit will have to be disposed of in an approved OCD facility.
8. The Division may attach additional conditions to any permit upon a finding that such conditions are necessary to prevent the contamination of fresh water, or to protect public health or the environment. (19.15.2.50.C.3.G.1.)

If I can be of any further assistance, please feel free to call (505) 748-1283 ext. 109.

Sincerely,

Van Barton

## DISTRICT II

811 South First, Artesia, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

□ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name McMillan Morrow
Property Code	Property Name PECOS RIVER DEEP UNIT	Well Number 11
OGRID No. 025513	Operator Name YATES DRILLING COMPANY	Elevation 3302

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	13	20S	26E		1980	SOUTH	660	WEST	EDDY

## 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	Joint or Infill	Consolidation Code	Order No.
640			

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

<p>NM-86063</p>			

**OPERATOR CERTIFICATION**

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

*Cy Cowan*  
Signature

Cy Cowan  
Printed Name

Regulatory Agent  
Title

April 15, 2004  
Date

**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 belief.

4/07/2004  
Date Surveyed

*Herchel L. Jones*  
Signature

Professional Surveyor  
Title

HERSCHEL L. JONES  
NEW MEXICO  
3640  
Professional Surveyor

Certified to New Mexico Land Surveyors RLS 3640  
PECOS RIVER DEEP UNIT 11  
GENERAL SURVEYING COMPANY

0 330' 660' 990' 1650' 1980' 2310' 2310' 1980' 1650' 990' 660' 330' 0'

**YATES DRILLING COMPANY**  
**Pecos River Deep Unit #11**  
 1980' FSL and 660' FWL  
 Section 13, T20-R26E  
 Eddy County, New Mexico

**1. The estimated tops of geologic markers are as follows:**

Yates Seven Rivers	Surface	Strawn	9122'
Queen	623'	Atoka	9620'
Grayburg	1184'	Morrow	9933'
San Andres	1597'	Morrow Clastics	10047'
Bone Spring Lime	3135'	Lower Morrow	10182'
3rd Bone Spring Lime	7275'	Barnett	10437'
Wolfcamp	7765'	Chester	10720'
Penn/Cisco Canyon	8648'	TD	10750'

**2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:**

Water: 200' - 300'  
 Oil or Gas: All potential zones

**3. Pressure Control Equipment:** BOPE will be installed on the 9 5/8" casing and rated for 5000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

**Auxiliary Equipment:**

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

**4. THE PROPOSED CASING AND CEMENTING PROGRAM:**

A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Thread</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	48#	H-40	ST&C	0-400'	400'
12 1/4"	9 5/8"	36#	J-55	ST&C	0-2700'	2700'
8 3/4"	5 1/2"	17#	L-80	LT&C	0-1200'	1200'
8 3/4"	5 1/2"	17#	J-55	LT&C	1200'-2300'	1100'
8 3/4"	5 1/2"	15.5#	J-55	LT&C	2300'-6100'	3800'
8 3/4"	5 1/2"	17#	J-55	LT&C	6100'-7900'	1800'
8 3/4"	5 1/2"	17#	L-80	LT&C	7900'-9500'	1600'
8 3/4"	5 1/2"	17#	HCP-110	LT&C	9500'-10750'	1250'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

## Pecos River Deep Unit #11

### Page 2

#### B. CEMENTING PROGRAM:

Surface casing: 500 sx Class 'C' + 2% CaCl<sub>2</sub> (YLD 1.32 WT 14.8).

Intermediate casing: Lead with 700 sx Lite (YLD 2.0 WT 12.5) Tail in w/200 sx Class C + 2% CaCl<sub>2</sub> (YLD 1.32 WT 14.8).

Production Casing: TOC 7250', Lead w/1100 sx Super 'C' (YLD 1.63 WT 13.0)

#### 5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
Spud to 400'	FW Gel/Paper	8.4-8.8	32-40	N/C
400'-2700'	Fresh Water	8.4	28	N/C
2700'-9600'	Cut Brine	8.6-9.6	28	N/C
9600'-10750'	S Gel/KCL/Starch/Drispac	9.6-10.0	32-38	<12cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

#### 6. EVALUATION PROGRAM:

Samples: 10' out from under surface casing to TD.

Logging: Platform Express CNL/LDT/NGT TD to surface casing; DLL-MSFL TD to surface casing; BHC-Sonic TD to surface casing.

Coring: None anticipated.

DST's: As Warranted.

#### 7. Abnormal Conditions, Bottom hole pressure and potential hazards:

##### Anticipated BHP:

From: 0	TO: 400'	Anticipated Max. BHP: 175	PSI
From: 400'	TO: 2700'	Anticipated Max. BHP: 1200	PSI
From: 2700'	TO: 10750'	Anticipated Max. BHP: 5600	PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None

H<sub>2</sub>S Zones Anticipated: None

Maximum Bottom Hole Temperature: 189° F

#### 8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**Yates Drilling Company**  
**Pecos River Deep Unit #10**  
1980' FSL and 660' FWL  
Section 13, T20S-R26E  
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

### **1. EXISTING ROADS:**

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 23 miles southeast of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

### **DIRECTIONS:**

Go south of Artesia on Highway 285 for approx. 24.5 miles to intersection of Capitan Reef Road and Hwy 285. Turn left on Capitan Reef Road and go until you get to the point where the entrance road to Brantley State Park Campground on the left. From this point continue on Capitan Reef Road for approx. .4 of a mile. The new road will start here going to the right. The proposed well location is just off the east side of Capitan Reef Road.

### **2. PLANNED ACCESS ROAD:**

- A. The proposed new access will be approximately 200 feet in length from the point of origin to the northwest corner of drilling pad. The road will lie in a west to east direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The new road will be bladed with drainage on one side. Traffic turnouts will not be built.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.

### **3. LOCATION OF EXISTING WELL**

- A. There is drilling activity within a one-mile radius of the wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

### **4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

**6. SOURCE OF CONSTRUCTION MATERIALS:**

The dirt contractor will acquire any materials from the closest source at the time of construction of the well pad.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

**8. ANCILLARY FACILITIES: None**

**9. WELLSITE LAYOUT:**

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 600' x 600' area has been staked and flagged.

**10. PLANS FOR RESTORATION**

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level within 90 days after abandonment.

**11. SURFACE OWNERSHIP: Bureau of Land Management, Carlsbad, New Mexico.**

**12. OTHER INFORMATION:**

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

**13. OPERATOR'S REPRESENTATIVE**

A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

B. Through Drilling Operations,  
Completions and Production:

Toby Rhodes, Operations Manager  
Yates Drilling Company  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

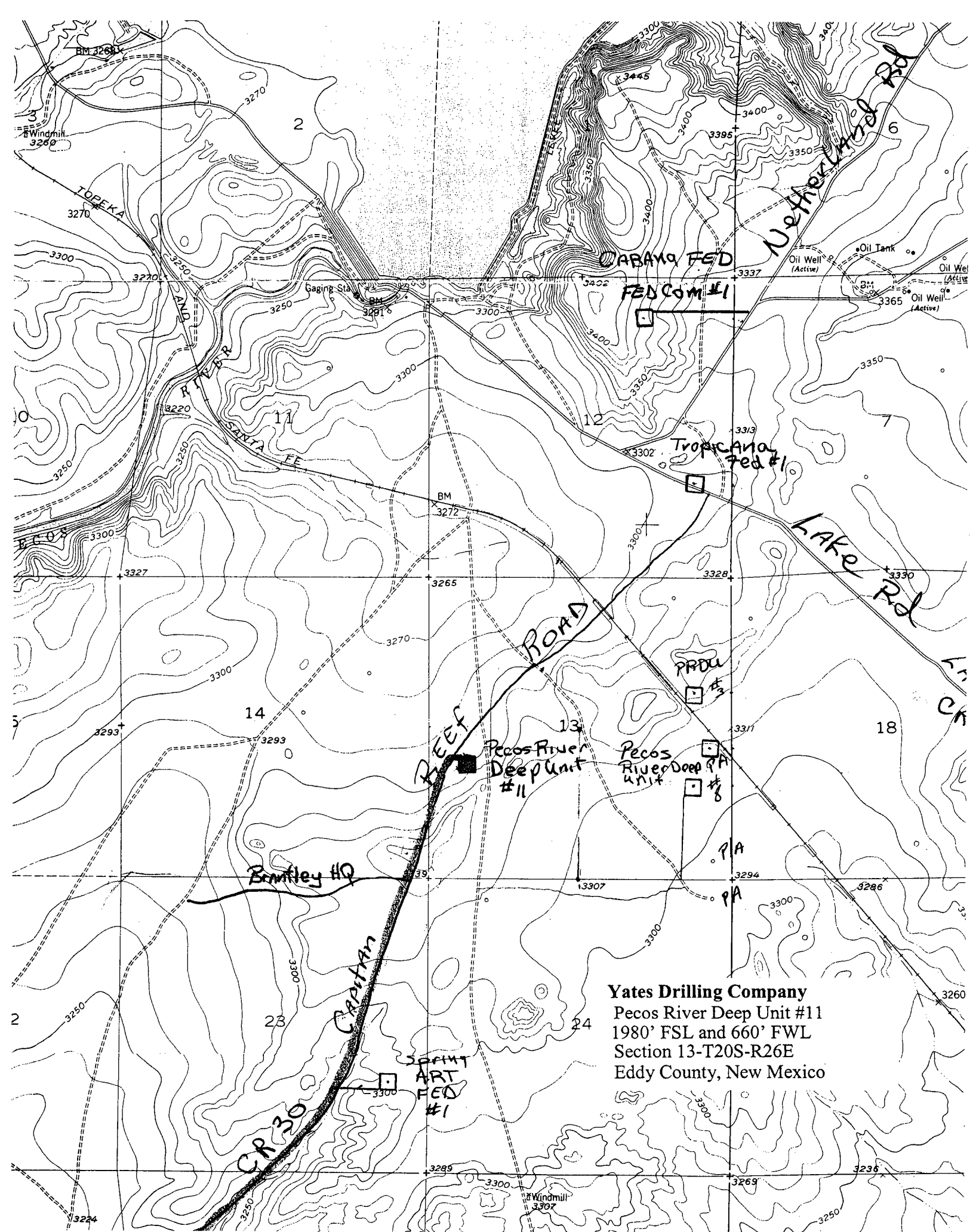
**14. CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation 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.

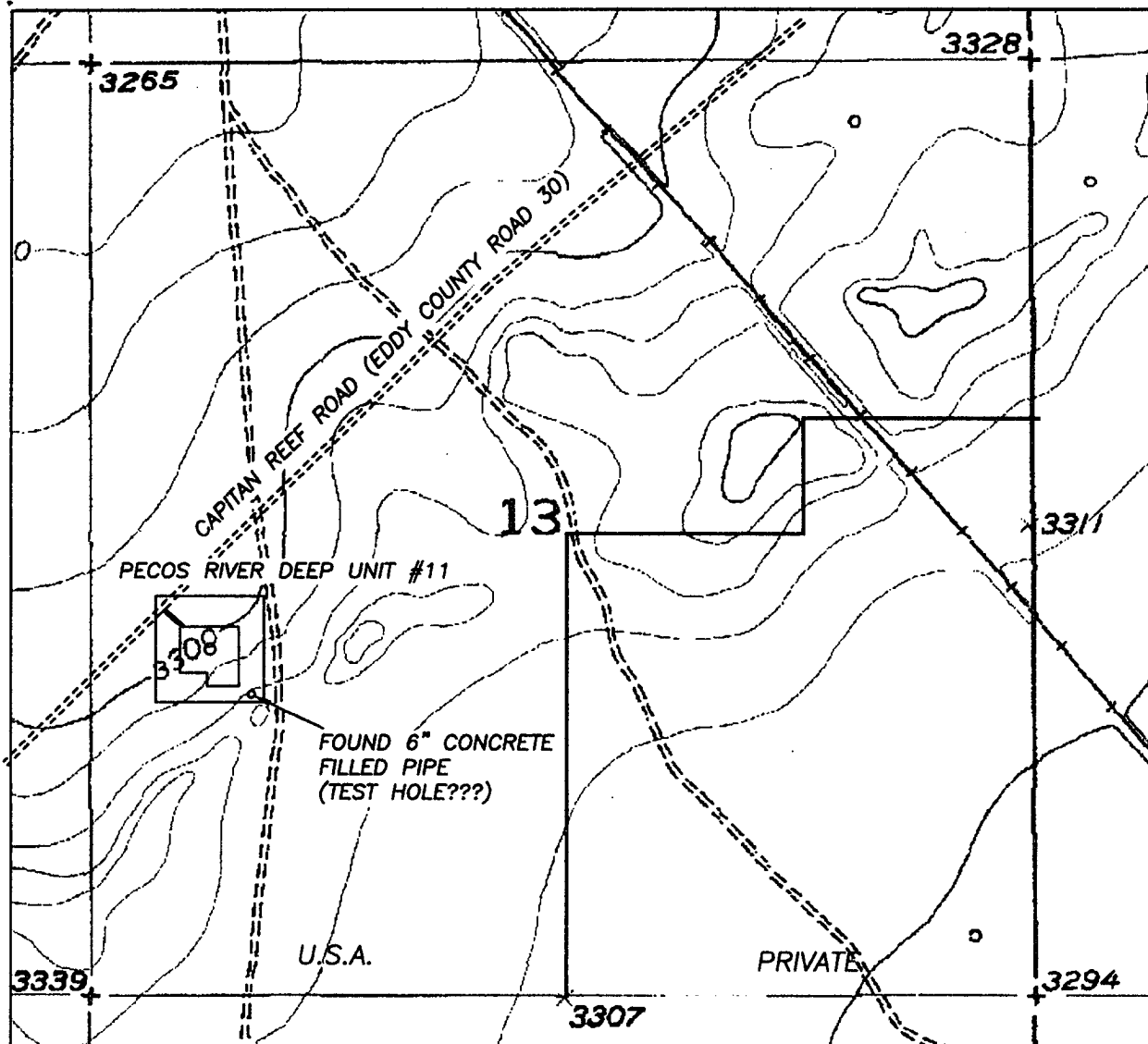
4/15/2004

  
\_\_\_\_\_  
Regulatory Agent





SECTION 13, TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



Yates Drilling Company  
 Pecos River Deep Unit #11  
 1980' FSL and 660' FWL  
 Section 13, T20S-R26E  
 Eddy County, New Mexico

1000' 0 1000' 2000'  
 Scale 1" = 1000'

THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

HERSCHEL D. JONES R.L.S. NO. 7640

GENERAL SURVEYING COMPANY, P.O. BOX 1928  
 LOVINGTON, NEW MEXICO 88260

## YATES DRILLING COMPANY

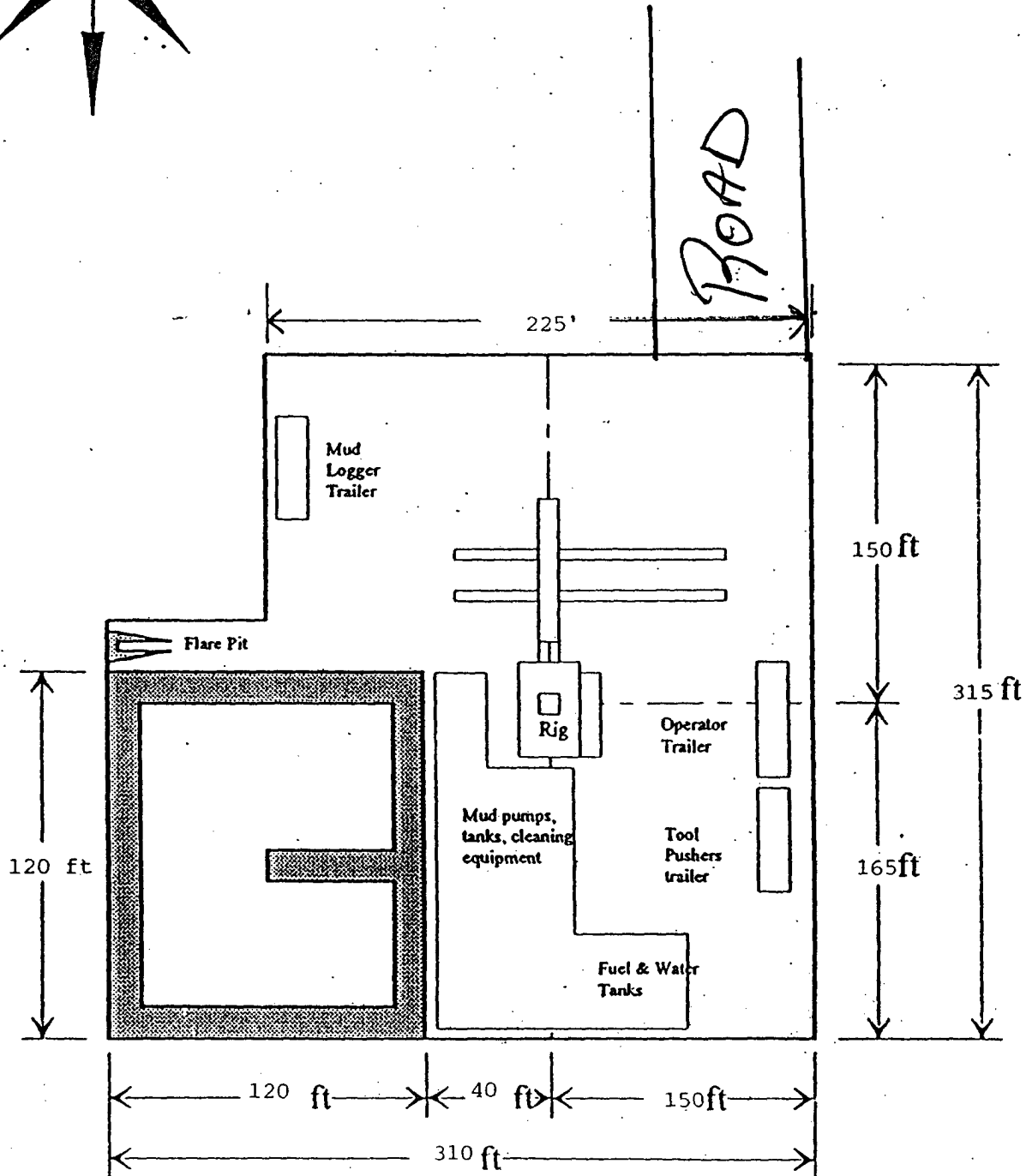
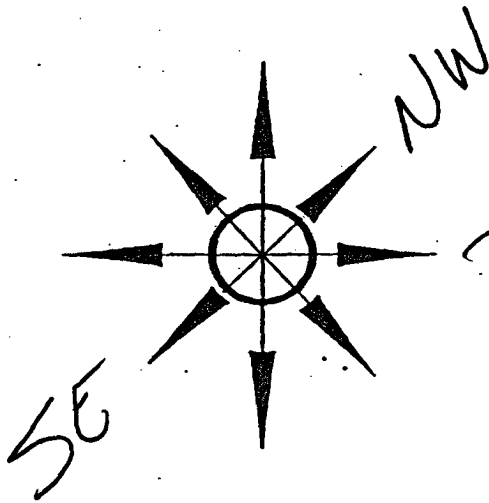
LEASE ROAD TO ACCESS THE YATES PECOS RIVER DEEP UNIT #11 WELL, LOCATED IN SECTION 13, TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

Survey Date: 4/07/2004	Sheet 1 of 1 Sheets
Drawn By: Ed Blevis	W.O. Number
Date: 4/07/04	Scale 1" = 1000' PECOSRVR11

Yates Drilling Company  
Pecos River Deep Unit #11  
1980' FSL and 660' FWL  
Section 13-T20S-R26E  
Eddy County, New Mexico

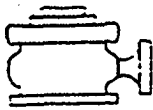
**Yates Drilling Company**  
Location Layout for Permian Basin  
Up to 12,000'

*Pits Southeast*



Distance from Well  
Head to Reserve Pit  
will vary between rigs

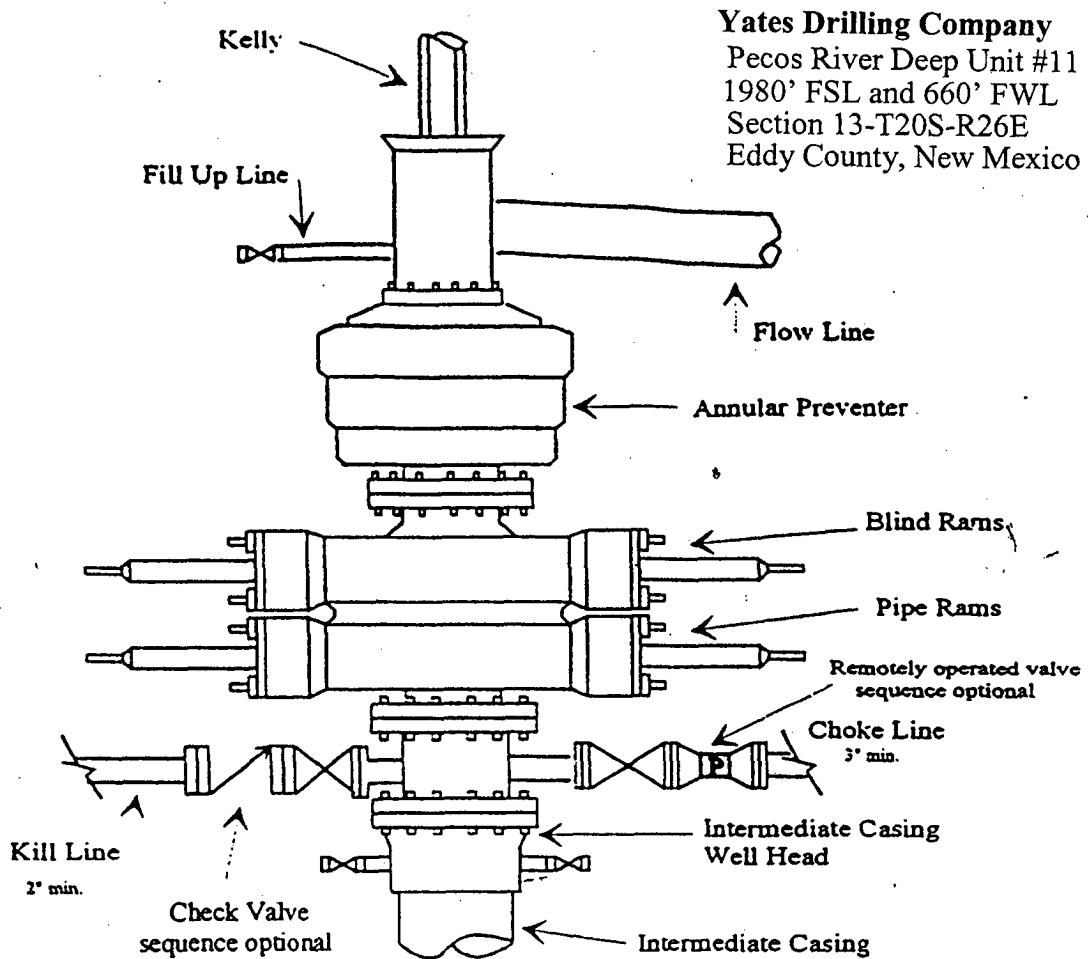
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should be a maximum



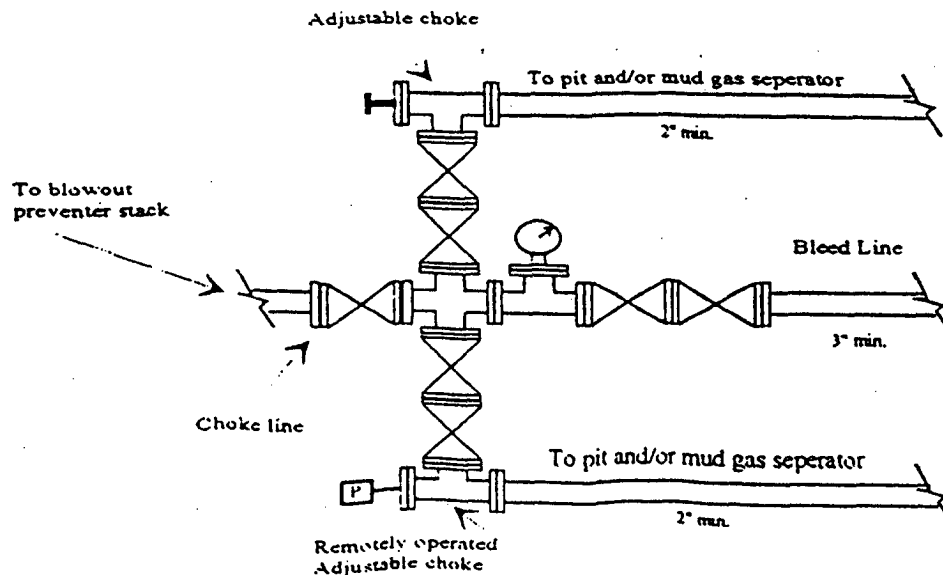
# YATES DRILLING COMPANY

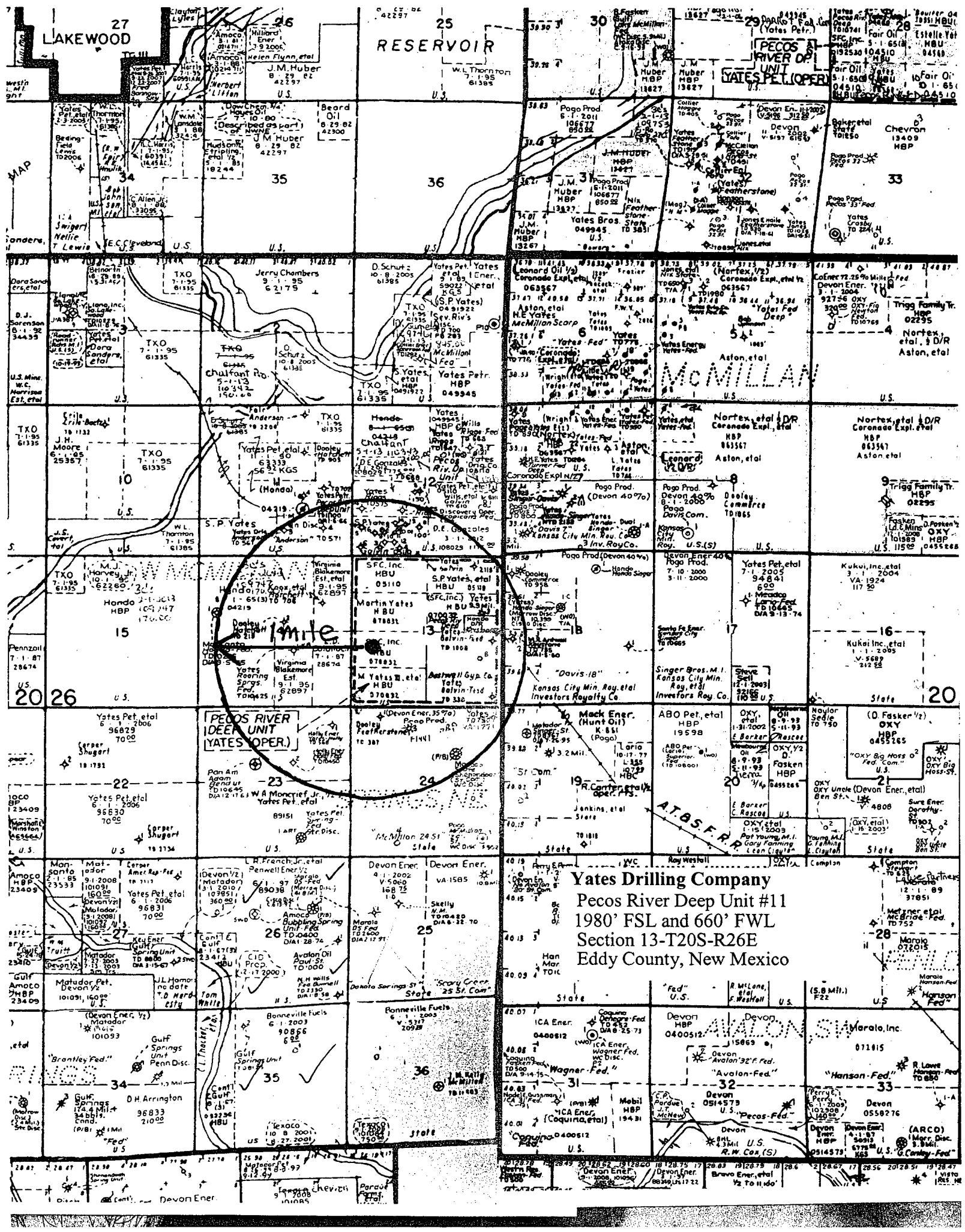
BOP-4

## Typical 5,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Typical 5,000 psi choke manifold assembly with at least these minimum features





**Yates Drilling Company**  
Pecos River Deep Unit #11  
1980' FSL and 660' FWL  
Section 13-T20S-R26E  
Eddy County, New Mexico