

Form 3160-3  
(July 1992)

**N.M. OIL CONS. COMMISSION**  
**P.O. BOX 1980**  
**HOBBS, NEW MEXICO 88240**  
**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**

**SUBMIT IN TRIPLICATE\***  
(Other instructions on  
reverse side)

**FORM APPROVED**  
**OMB NO. 1004-0136**  
**Expires: February 28, 1995**

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

<b>1a. TYPE OF WORK</b> <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> NM-77061
<b>b. TYPE OF WELL</b> <b>OIL WELL</b> <input checked="" type="checkbox"/> <b>GAS WELL</b> <input type="checkbox"/> <b>OTHER</b> <input type="checkbox"/> <b>SINGLE ZONE</b> <input type="checkbox"/> <b>MULTIPLE ZONE</b> <input type="checkbox"/>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b>
<b>2. NAME OF OPERATOR</b> YATES PETROLEUM CORPORATION		<b>7. UNIT AGREEMENT NAME</b>
<b>3. ADDRESS AND TELEPHONE NO.</b> 105 South Fourth Street, Artesia, NM 88210 (505) 748-1471		<b>8. FARM OR LEASE NAME, WELL NO.</b> Freida "AFR" Federal
<b>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*</b> At surface 330' FNL and 990' FWL At proposed prod. zone Same		<b>9. API WELL NO.</b> #3
<b>14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*</b> 41 miles Northwest of Jal, New Mexico		<b>10. FIELD AND POOL, OR WILDCAT</b> Wildcat Bone Spring
<b>15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)</b>		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> Sec. 3-T23S-R32E
<b>16. NO. OF ACRES IN LEASE</b> 238.24		<b>12. COUNTY OR PARISH</b> Lea
<b>17. NO. OF ACRES ASSIGNED TO THIS WELL</b> 40		<b>13. STATE</b> NM
<b>18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.</b>		<b>20. ROTARY OR CABLE TOOLS</b> Rotary
<b>21. ELEVATIONS (Show whether DF, RT, GR, etc.)</b> 3669'		<b>22. APPROX. DATE WORK WILL START*</b> ASAP

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48# J-55	1150'	550 sacks <u>circulated</u>
12 1/4"	8 5/8"	32# J-55 & HC-80	4650'	1750 sacks ( <u>tie back</u> )
7 7/8"	5 1/2"	15.5# J-55 & 17# J-55	TD	1050 sacks ( <u>tie back</u> )

Yates Petroleum Corporation proposes to drill and test the Bone Spring and intermediate formations. Approximately 1150' of surface casing will be set and cement circulated. Approximately 4650' of intermediate casing will be set and cement circulated. If commercial, production casing will be run and cemented with adequate cover, perforated and stimulated as needed for production.

MUD PROGRAM: FW/GEL to 1150'; Brine to 4650', cut Brine, Starch to TD.

BOPE PROGRAM: BOPE will be nipped up on the 8 5/8" casing and tested daily operational.

OPER. OGRID NO. 25572  
PROPERTY NO. 13305  
POOL CODE 96037  
EFF. DATE 4/3/96  
API NO. 30-625-33361

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program if any.

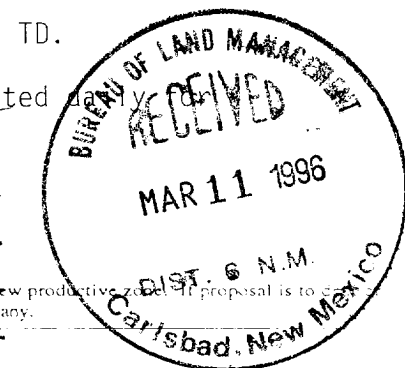
SIGNED Cliff R. May TITLE Regulatory Agent DATE 3-7-96

(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 in the on  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY **(ORIG. SGD.) RICHARD L. MANUS** AREA MANAGER DATE **MAR 29 1996**

\*See Instructions On Reverse Side



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

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 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name WILDCAT BONE SPRING
Property Code	Property Name FREIDA "AFR" FEDERAL		Well Number #3
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION		Elevation 3669

<sup>10</sup> Surface Location

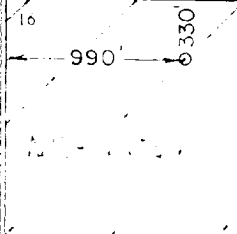
UL or lot no. D	Section 3	Township 23S	Range 32E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 990	East/West line WEST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 40	<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

				<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Clifton R. May</i> Signature Clifton R. May Printed Name Regulatory Agent Title 3-7-96 Date</p> <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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.</p> <p>2/29/96 Date of Survey Signature and Seal of Professional Surveyor: <i>Harold R. [Signature]</i> Certificate Number 3640</p>

**YATES PETROLEUM CORPORATION  
FREIDA "AFR" FEDERAL #3  
330' FNL AND 990' FWL  
SECTION 3-T23S-R32E  
LEA COUNTY, NEW MEXICO**

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

Rustler	1100'	Bone Spring	8700'
Top of Salt	1135'	TD	10,000'
Base of Salt	4500'		
Bell Canyon	4750'		
Cherry Canyon	5780'		
Brushy Canyon	7680'		

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

Water: 250-750  
Oil or Gas: 7680' and 8700'

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 3M 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, 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>Coupling</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8	48#	J55	8R	ST&C	0-1150'	1150'
12 1/4"	8 5/8	32#	J55	8R	ST&C	0-4200'	4200'
12 1/4"	8 5/8	32#	HC80	8R	LT&C	4200-4650'	450'
7 7/8"	5 1/2	17#	N80	8R	LT&C	0-2000'	2000'
7 7/8"	5 1/2	17#	J55	8R	LT&C	2000-3000'	1000'
7 7/8"	5 1/2	15.5#	J55	8R	LT&C	3000-7000'	4000'
7 7/8"	5 1/2	17#	J55	8R	LT&C	7000-8500'	1500'
7 7/8"	5 1/2	17#	N80	8R	LT&C	8500-10000'	1500'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.80

**B. CEMENTING PROGRAM:**

Surface casing: 300 sx. Pacesetter Lite "C" w/ 1/4# Cellocel & 3% CaCl<sub>2</sub> (wt. 12.4 ppg. Yield 1.84 ft<sup>3</sup>) + 250 sx. Class "C" w/ 2% CaCl<sub>2</sub>. (wt. 14.8 ppg., Yield 1.32 ft<sup>3</sup>) Cement calculated to circulate to surface.

Intermediate Casing: 1500 sx. Pacesetter Lite "C" w/ 1/4# Cellocel + 3% CaCl<sub>2</sub>. (wt. 14.8 ppg. Yield 1.32 ft<sup>3</sup>) + 250 sx. Class "C" w/ 2% CaCl<sub>2</sub>. (wt. 14.8 ppg. Yield 1.32 ft<sup>3</sup>) Cement calculated to circulate to surface.

Production Casing: 1st Stage: 250 sx. "H" w/ 8# sack CSE, + 0.6% CF-14 + 5# sack Gilsonite (wt. 13.6 ppg Yield 1.76 ft<sup>3</sup>) Cement calculated to 8000' DV tool set at approx. 8000 ft.

2nd Stage: 650 sacks pacesetter lite "C" w/ 5# sack Gilsonite, 1/4# sack Cellocel, + 0.5% CF-14. (wt. 12.5 ppg Yield 2.04 ft<sup>3</sup>) + 150 sacks "H" w/ 0.5% Cf-14 (wt. 13.6 ppg Yield 1.75 ft<sup>3</sup>). Cement calculated to tie back to intermediate csng. 100'.

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

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1150	FWGEL	8.6 - 9.6	32-36	N/C
1150-4650	Brine	10.0-10.2	28	N/C
4650-10000	cut brine, starch	8.9 - 9.1	30	<15cc

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: Every 10' from surface casing to TD

Logging: CNL - LTD from TD to casing with GR-CNL up to surface; DLL w/RXO from TD to casing

Coring: None anticipated

DST's: Any tests will be based on the recommendations of the well site geologist as warranted by drilling breaks and shows

**FREIDA "AFR" FEDERAL #3**  
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7. Abnormal Conditions, Bottom hole pressure and potential hazards:  
Anticipated BHP:
- |            |          |                            |     |
|------------|----------|----------------------------|-----|
| From: 0    | TO: 1150 | Anticipated Max. BHP: 250  | PSI |
| From: 1150 | TO: 4650 | Anticipated Max. BHP: 2062 | PSI |
| From: 4650 | TO: TD   | Anticipated Max. BHP: 3800 | PSI |

Abnormal Pressures Anticipated: None

Lost Circulation zones anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 140F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 15 days to drill the well with completion taking another 20 days.

# YATES PETROLEUM CORPORATION

Freida AFR Federal #3  
330' FNL and 990' FWL  
Sec. 3-T23S-R32E  
Lea County, New Mexico

Exhibit B

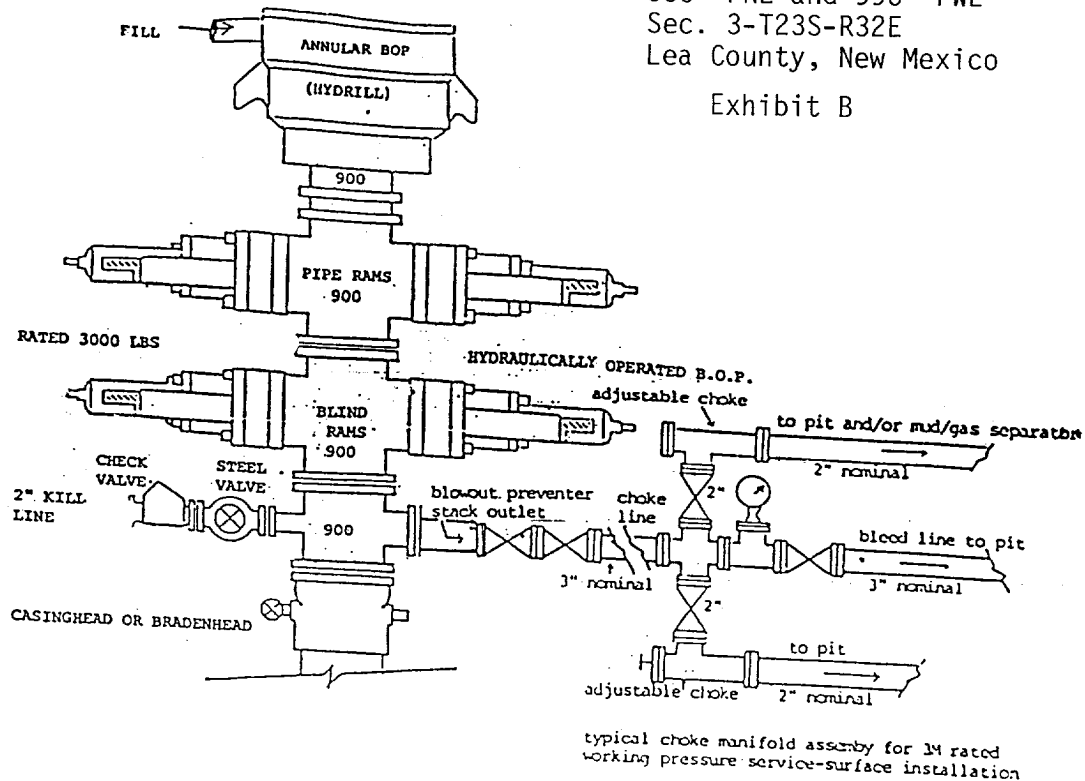


EXHIBIT B

THE FOLLOWING CONSTITUTES THE MINIMUM BLOWOUT PREVENTER  
REQUIREMENTS FOR 3000 PSI WP SYSTEMS

1. All preventers to be hydraulically operated with secondary manual controls installed prior to drilling out from under casing.
2. Choke outlet to be a minimum of 3" diameter.
3. Kill line to be of all steel construction of 3" minimum diameter.
4. All connections from operating manifolds to preventers to be all steel. Hole or tube to be a minimum of one inch in diameter.
5. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate the B.O.P.'s.
6. All connections to and from preventer to have a pressure rating equivalent to that of the B.O.P.'s.
7. Inside blowout preventer to be available on rig floor.
8. Operating controls to be located a safe distance from the rig floor.
9. Hole must be kept filled on trips below intermediate casing.