

# OPERATOR'S COPY

Well file

Form 3160-3  
(August 1999)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

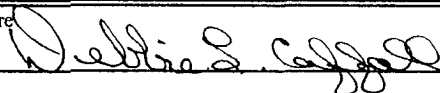

### APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NM-2359</b>
b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name <b>Not Applicable</b>
2. Name of Operator <b>Yates Petroleum Corporation</b>		7. If Unit or CA Agreement, Name and No. <b>Not Applicable</b>
3A. Address <b>105 South Fourth Street</b> <b>Artesia, New Mexico 88210</b>	3b. Phone No. (include area code) <b>(505) 748-1471</b>	8. Lease Name and Well No. <b>1275-9</b> <b>Sorenson "IB" Federal #5</b>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>1000' FSL and 660' FWL, Unit M</b> At proposed prod. Zone <b>same as above</b>		9. API Well No. <b>30-005-63961</b>
14. Distance in miles and direction from nearest town or post office* <b>Approximately thirty (30) miles northeast of Roswell, New Mexico</b>		10. Field and Pool, or Exploratory <b>Wildcat Precambrian</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease <b>470.08</b>	11. Sec., T, R, M., or Blk, and Survey or Area <b>Section 6, T7S-R26E</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	17. Spacing Unit dedicated to this well <b>320 S/2</b>	12. County or Parish <b>Chaves County</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc ) <b>3689' GL</b>	19. Proposed Depth <b>5270'</b>	13. State <b>NM</b>
22. Approximate date work will start* <b>ASAP</b>	20. BLM/BIA Bond No on file <b>NM-2811</b>	23. Estimated duration <b>30 Days</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>Debbie L. Caffall</b>	Date <b>7/13/2006</b>
Title <b>Regulatory Agent</b>		
<b>debbiec@ypcnm.com</b>		
Approved by (Signature) 	Name (Printed/Typed) <b>LARRY D. BRAY</b>	Date <b>8/17/06</b>
Title <b>Assistant Field Manager,</b>	Office <b>ROSWELL FIELD OFFICE</b>	<b>APPROVED FOR 1 YEAR</b>
<b>Lands And Minerals</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

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)

PREVIOUSLY APPROVED

C-144 ATTACHED

WITNESS SURFACE  
CASING

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
911 South First, Artesia, NM 88210

District III  
1009 Rio Brazos Rd., Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 15, 2000

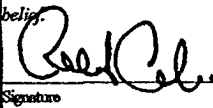
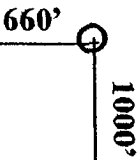
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code 96542		<sup>3</sup> Pool Name Wildcat Precambrian					
<sup>4</sup> Property Code 12759		<sup>5</sup> Property Name Sorenson IB Federal						<sup>6</sup> Well Number 5	
<sup>7</sup> OGRID No. 025575		<sup>8</sup> Operator Name Yates Petroleum Corporation						<sup>9</sup> Elevation 3689'	
<sup>10</sup> Surface Location									
UL or lot no. M	Section 6	Township 7S	Range 26E	Lot Ida	Feet from the 1000	North/South line South	Feet from the 660	East/West line West	County Chaves
<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 320 5/2		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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

				<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 Robert Asher Printed Name Regulatory Agent Title 06/22/2004 Date	
NM-2359				<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 belief. REFER TO ORIGINAL PLAT Date of Survey Signature and Seal of Professional Surveyor	
				Certificate Number	

DISTRICT III  
611 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

Submit to Appropriate  
State Lease  
Fee Lease

# OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Wildcat Precambrian
Property Code	Property Name	Well Number
	SORENSON "IB" FEDERAL	5
OGED No.	Operator Name	Elevation
025575	YATES PETROLEUM CORPORATION	3689

### Surface Location

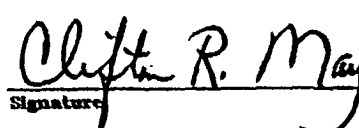
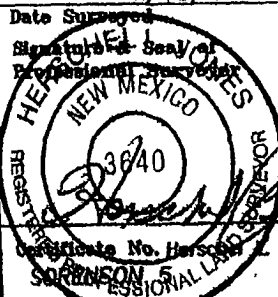
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	6	7S	26E		1000	SOUTH	660	WEST	CHAVES

### 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.
320			

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

				<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature Clifton R. May Printed Name Regulatory Agent Title 3/12/02 Date
				<b>SURVEYOR CERTIFICATION</b>  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.  2/13/2002 Date Surveyed  Signature Clifton R. May Professional Surveyor NEW MEXICO 3640 REGISTRATION NO. 3640 JONES RLS 3640 GENERAL SURVEYING COMPANY
N.33°43'58.3" W.104°20'35.7"	NM-2359			
3686 3683 660' 3695 3691 1000'				

**YATES PETROLEUM CORPORATION**  
**Sorenson "IB" Federal #5**  
**1000' FSL and 660' FWL**  
**Section 6-T7S-R26E**  
**Chaves County, New Mexico**

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

San Andres	475'
Glorieta	1475'
Yeso	1625'
Tubb	3050'
Abo	3675'
Wolfcamp	4460'
Cisco	4940'
Penn Clastics	5020'
Basement - Granite	5120'
TD	5270'

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

Water: 150'-200'  
Oil or Gas: All potential zones.

3. Pressure Control Equipment: BOPE will be installed on the 11 3/4" casing and rated for 2000 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>Coupling</u>	<u>Interval</u>	
14 3/4"	11 3/4"	42#	H-40	ST&C	0-900'	WITNESS
11	8 5/8"	24#	J-55	ST&C	0-1500'	
7 7/8"	5 1/2"	15.5#	J-55	ST&C	0-5270'	

\*8 5/8" will only be set if lost circulation is encountered

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8
2. Yates Petroleum Corporation requests that a variance be granted in requiring the casing and BOPE to be tested to 2000 PSI to testing the casing and BOPE to 1000 PSI. The rig pumps will be used to test the casing and BOPE. Rig pumps used in this area cannot safely test above 1000 PSI. We would have to go to the greater expense of hiring an independent service to do the testing. Also, the maximum shut-in bottom hole pressure is 2200 PSI and it normally requires treatment to flow. Shut-in pressure at the surface would be less than 1000 PSI. We feel that a 1000 psi test will demonstrate that the BOPE is functioning properly and in the unlikely event of a gas in flux that the BOPE would be sufficient to control the well.

## B. CEMENTING PROGRAM:

Surface Casing: 350 sx Lite "C" (YLD 2.0 WT 12.5). Tail in with 200 sx "C"  
+ 2% CaCL<sub>2</sub> (YLD 1.32 WT 15.6).

Intermediate Casing: 400 sx Lite (YLD 2.0 WT 12.0). Tail in with 250 sx Class C+2%  
CaCL<sub>2</sub> (YLD 1.32 WT 14.8).

Production Casing: 500 sx Pecos Valley Lite (YLD 1.34 WT 13.0). TOC 3200'.

## 5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-900'	FW GEL, Paper, LCM	8.6 - 9.6	32-36	N/C
900'-3680'	Cut Brine/Brine	9.0 - 10.2	28	N/C
3680'-5270'	Salt Gel/Starch	9.3 - 10.2	32-40	<6/cc

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' samples out from under surface casing.

Logging: Platform Express CNL/LDT, W/NGT TD -Surf csg; with GR/CNL up to Surf:  
DLL/MS FL TD-Surf csg; BHC Sonic TD-Surf csg

Coring: None

DST's: As warranted.

## 7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Anticipated BHP:

From: 0	TO: 900'	Anticipated Max. BHP: 375 PSI
From: 900'	TO: 5280'	Anticipated Max. BHP: 2200 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

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

Maximum Bottom Hole Temperature: 110 F

## 8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 25 days to drill the well with completion taking another 20 days.

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**CHAVES PETROLEUM CORPORATION**  
**Sorenson "IB" Federal #5**  
**1000' FSL and 660' FWL**  
**Section 6-T7S-R26E**  
**Chaves 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 well site is located approximately 25 miles northeast of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

**DIRECTIONS:**

Go east of Roswell, NM on Highway 285 to Red Bluff Road. Turn east on Red Bluff Rd. and go approx. 12.2 miles to Cottonwood Rd. Go left on Cottonwood Road for 2.1 miles and the new road will start here and go to the SE corner of the pad. Turn north and go approx. 3.3 miles. The new road will start here and go west to the SE corner of the pad.

**2. PLANNED ACCESS ROAD:**

- A. The proposed new access will be approximately 200' in length from the point of origin to the southeast corner of the drilling pad. The road will lie in a northeast to southwest 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. 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 well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

**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:**

Dirt contractor will locate nearest pit and obtain any permits and materials needed for construction.

**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. Yates Petroleum Corporation is in full compliance with the OCD General Plan for Drilling Pits approved on April 15, 2004.
- C. A 400' x 400' 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 after they have evaporated and dried.

**Sorenson "IB" Federal #5**  
**Page Three**

11. SURFACE OWNERSHIP: Private Surface  
Michael Hillman  
Hillman Family Trust  
HCR Box 1108-A  
Roswell, NM 88202-2148

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.

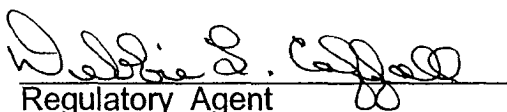
13. OPERATOR'S REPRESENTATIVE:

- |  |   |
|--|---|
| A. Through A.P.D. Approval:<br>Debbie Caffall, Regulatory Agent<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 | B. Through Drilling, Completions & Prod.<br>Pinson McWhorter, Operations Manager<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 |
|--|---|

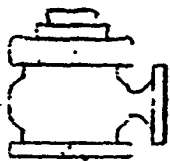
14. CERTIFICATION:

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.

7/13/2006

  
Regulatory Agent

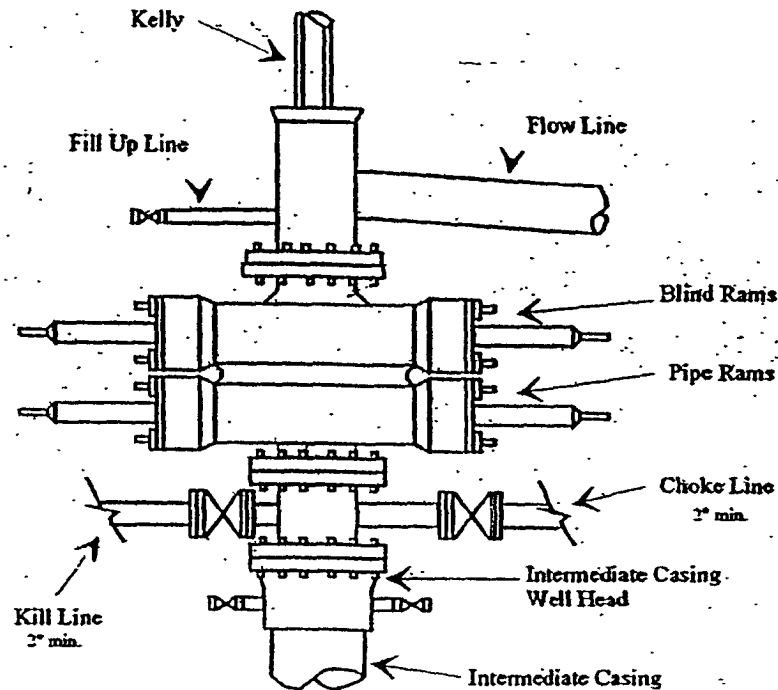




# Yates Petroleum Corporation

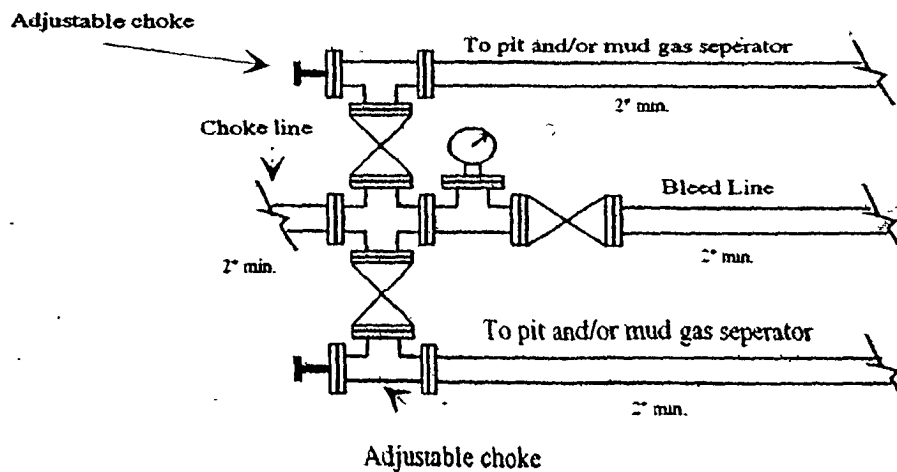
BOP-2

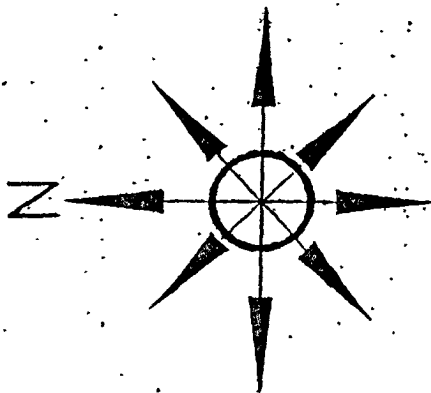
## Typical 2,000 psi Pressure System Schematic Double Ram Preventer Stack



Yates Petroleum Corporation  
Sorenson "IB" Federal #5  
1000' FSL & 660' FWL  
Section 6-T7S-R26E  
Chaves County, New Mexico  
Exhibit "B"

Typical 2,000 psi choke manifold assembly with at least these minimum features





# Yates Petroleum Corporation.

Sorenson "IB" Federal #5

1000' FSL & 660' FWL

Section 6-T7S-R26E

Chaves County, New Mexico

Lease No. NM-2359

Yates Petroleum Corporation

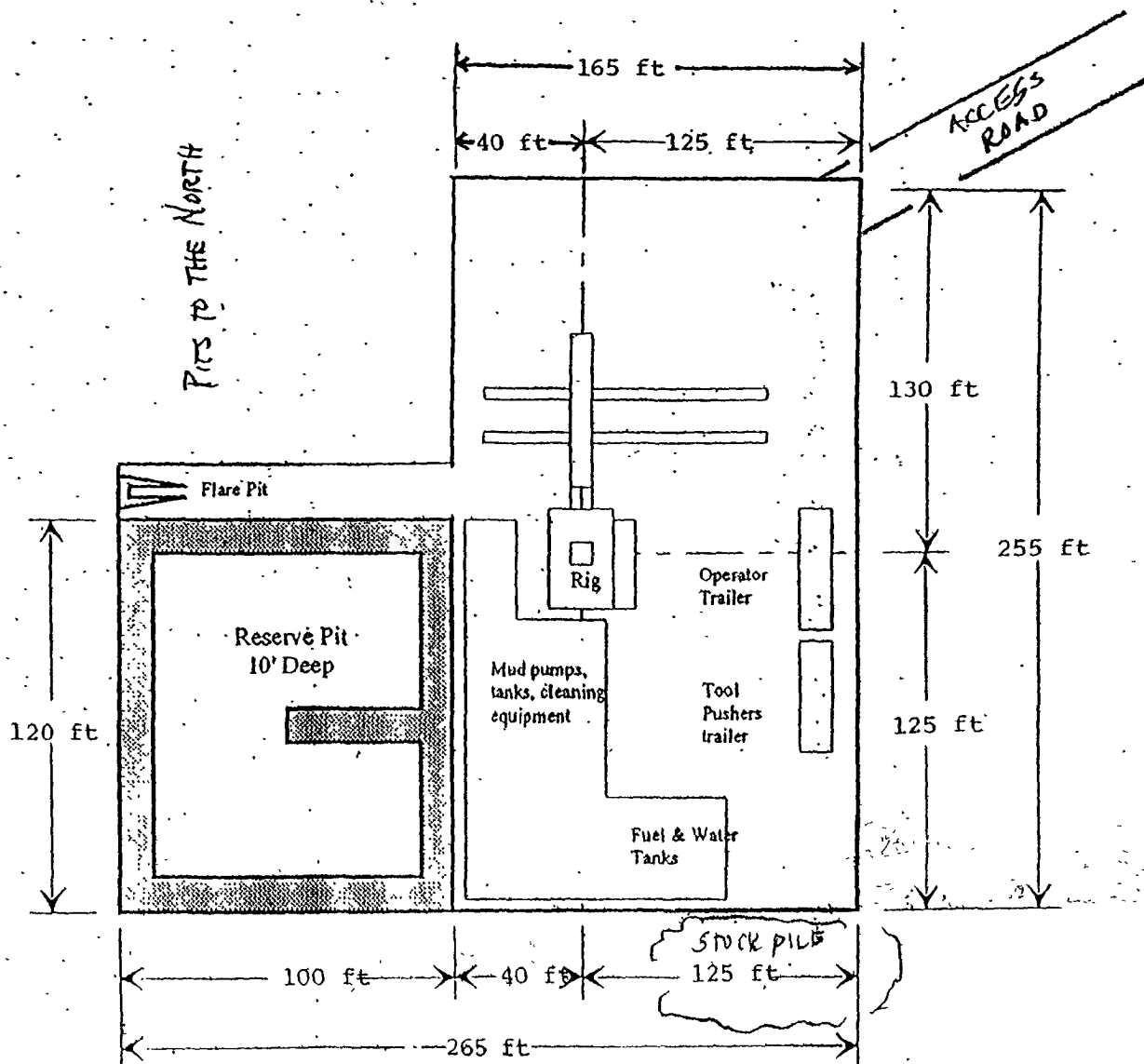
Sorenson "IB" Federal #5

1000' FSL & 660' FWL

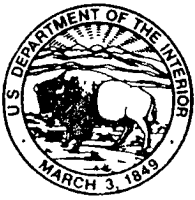
Section 6-T7S-R26E

Chaves County, New Mexico

Exhibit "C"



Distance from Well  
Head to Reserve Pit  
will vary between rigs



**United States Department of the Interior**  
**BUREAU OF LAND MANAGEMENT**

Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201

IN REPLY REFER TO:

Sorenson "IB" Federal #5

NM-2359

Yates Petroleum Corporation shall adhere to the following;

A. The Conditions of Approval attached to the APD that was previously approved on September 1, 2005 are exclusive to this well and still in affect.

RECEIVED

AUG 28 2006

MAIL ROOM

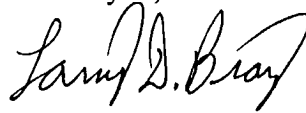
25 August 2006

Debbie,

Here are the conditions of approval that should have been attached to the Sorenson "IB" Federal #5 (lease #NMNM2359) APD approved on 08/17/06 and the Spring Federal #5 (lease #NMNM32167) APD also approved on 08/17/06. The conditions of approval start with exhibit B as exhibit A is only a map to the well site.

If you have any other questions contact me at 505-627-0250.

Thank you,

A handwritten signature in black ink, appearing to read "Larry D. Bray". The signature is fluid and cursive, with the first name "Larry" and last name "Bray" clearly distinguishable.

## WELL DRILLING REQUIREMENTS

3 of 5 pages

### III. DRILLING OPERATION REQUIREMENTS:

#### A. GENERAL DRILLING REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 11¼ inch 8% inch 5½ inch
- C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

#### B. CASING:

1. The 11¼ inch surface casing shall be set at 925' and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 8½ inch intermediate casing if run is with sufficient amount of cement bring it up at least 200 above shoe.

3. The minimum required fill of cement behind the 5½ inch production casing if 8½ is not run cement shall extend upward a minimum of 50 feet above the top of the Glorieta Formation.

#### C. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 11¼ inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- a. The results of the test shall be reported to the appropriate BLM office.
- b. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- c. Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- d. BOPE shall be tested before drilling into the Wolfcamp formation.

#### D. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.