

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | |
|--|---|---|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NMSF - 070390 077123 |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name |
| 2. Name of Operator BP AMERICA PRODUCTION COMPANY | | 7. If Unit or CA Agreement, Name and No. |
| Contact: MARY CORLEY E-Mail: corleym@bp.com | | 8. Lease Name and Well No. WARREN COM 1M |
| 3a. Address P.O. BOX 3092 HOUSTON, TX 77253 | 3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700 | 9. API Well No. 3004532017 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SWNW Lot E 1980FNL 660FWL 36.39800 N Lat, 107.44800 W Lon At proposed prod. zone | | 10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVER |
| 14. Distance in miles and direction from nearest town or post office* 17 MILES FROM BLOOMFIELD, NM | | 11. Sec., T., R., M., or Blk. and Survey or Area E Sec 13 T28N R9W Mer NMP SME: BLM |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660 | 16. No. of Acres in Lease 320.00 | 12. County or Parish SAN JUAN |
| 17. Spacing Unit dedicated to this well 320.00 w/2 | 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200 | 13. State NM |
| 19. Proposed Depth 6849 MD | 20. BLM/BIA Bond No. on file | 21. Elevations (Show whether DF, KB, RT, GL, etc.) 5962 GL |
| 22. Approximate date work will start 12/24/2003 | 23. Estimated duration 7 DAYS | 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

| | | |
|--|---|--------------------|
| 25. Signature (Electronic Submission) | Name (Printed/Typed) MARY CORLEY | Date 11/20/2003 |
| Title AUTHORIZED REPRESENTATIVE | | |
| Approved by (Signature) | Name (Printed/Typed) /s/ David J. Markiewicz | Date |
| Title | Office | DEC 19 2003 |

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #25369 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

Technical and
review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NMOCD

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
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 30045-32017 | | Pool Code 71599 & 72319 | | Pool Name BASIN DAKOTA & BLANCO MESA VERDE | |
| Property Code 001211 | | Property Name Warren Com | | | Well Number # 1M |
| OGRID No. 000778 | | Operator Name AMOCO PRODUCTION COMPANY | | | Elevation 5962 |

10 Surface Location

| UL or Lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| E | 13 | 28 N | 9 W | | 1980 | NORTH | 660 | WEST | SAN JUAN |

11 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 320 | Joint or Infill | 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

| | |
|--|--|
| | <p>17 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>Signature: <i>Mary Taylor</i></p> <p>Printed Name: Mary Taylor</p> <p>Title: Sr. Regulatory Analyst</p> <p>Date: 11/19/2003</p> |
| | <p>18 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>February 22, 2001</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor: <i>GARY D. KINN</i></p> <p>7016</p> <p>Certificate Number</p> |

**BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: Warren Com
Lease: Warren
County: San Juan
State: New Mexico
Date: October 9, 2003

Well No: 1M
Surface Location: 13-28N-9W, 1980 FNL, 660 FWL
Field: Blanco Mesaverde/Basin Dakota

| | | | | | | | |
|---|------------------------|--------------------------|---|--|------------------------|------------------------------|--------------|
| OBJECTIVE: Drill 210' below the top of the Two Wells (DKOT), set 4.5" production casing across Dakota, Stimulate CH, MF, PL and DK intervals | | | | | | | |
| METHOD OF DRILLING | | | | APPROXIMATE DEPTHS OF GEOLOGICAL MARKER | | | |
| TYPE OF TOOLS | | DEPTH OF DRILLING | | Estimated GL: 5962' | | Estimated KB: 5976' | |
| Rotary | | 0 - TD | | | | | |
| LOG PROGRAM | | | | | | | |
| TYPE | | DEPTH INTERVAL | | MARKER | | SUBSEA | TVD |
| <u>OPEN HOLE</u> | | | | Ojo Alamo | | 4580' | 1396' |
| | | | | Kirtland Shale | | 4539' | 1438' |
| | | | | Fruitland | | 4107' | 1869' |
| | | | | Fruitland Coal | * | 3880' | 2096' |
| | | | | Pictured Cliffs | * | 3653' | 2323' |
| | | | | Lewis Shale | # | 3436' | 2540' |
| | | | | Cliff House | # | 2330' | 3646' |
| | | | | Menefee Shale | # | 1941' | 4035' |
| | | | | Point Lookout | # | 1389' | 4588' |
| <u>CASED HOLE</u> | | | | Mancos | | 1026' | 4950' |
| GR-CCL-TDT | | TDT - TD to 7" shoe | | Greenhorn | | -541' | 6517' |
| CBL | | Identify 4.5" cement top | | Bentonite Marker | | -607' | 6583' |
| REMARKS: | | | | Two Wells | # | -663' | 6639' |
| - Please report any flares (magnitude & duration). | | | | Paguate | # | -733' | 6709' |
| | | | | Cubero | # | -779' | 6755' |
| | | | | Lower Cubero | # | -801' | 6777' |
| | | | | Encinal Canyon | # | -835' | 6811' |
| | | | | TOTAL DEPTH | | | -873' |
| | | | | # Probable completion interval | | * Possible Pay | |
| SPECIAL TESTS | | | | DRILL CUTTING SAMPLES | | DRILLING TIME | |
| TYPE | | | | FREQUENCY | DEPTH | FREQUENCY | DEPTH |
| None | | | | 10' | 2640' to TD | Geolograph | 0-TD |
| REMARKS: | | | | | | | |
| MUD PROGRAM: | | | | | | | |
| Approx. Interval | | Type Mud | Weight, #/gal | Vis, sec/qt | W/L cc's/30 min | Other Specification | |
| 0 - 120 | | Spud | 8.6-9.2 | | | | |
| 120 - 2640 (1) | | Water/LSND | 8.6-9.2 | | | | |
| 2640 - 6849 | | Gas/Air/Mist | Volume sufficient to maintain a stable and clean wellbore | | | | |
| REMARKS: | | | | | | | |
| (1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency. | | | | | | | |
| CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract) | | | | | | | |
| Casing String | Estimated Depth | Casing Size | Grade | Weight | Hole Size | Landing Pt, Cmt, Etc. | |
| Surface/Conductor | 120 | 9 5/8" | H-40 ST&C | 32# | 13.5" | 1 | |
| Intermediate | 2640 | 7" | J/K-55 ST&C | 20# | 8.75" | 1,2 | |
| Production | 6849 | 4 1/2" | J-55 | 11.6# | 6.25" | 3 | |
| REMARKS: | | | | | | | |
| (1) Circulate Cement to Surface | | | | | | | |
| (2) Set casing 100' into Lewis Shale | | | | | | | |
| (3) Bring cement 100' above 7" shoe | | | | | | | |
| CORING PROGRAM: | | | | | | | |
| None | | | | | | | |
| COMPLETION PROGRAM: | | | | | | | |
| Rigless, 3-4 Stage Limited Entry Hydraulic Frac | | | | | | | |
| GENERAL REMARKS: | | | | | | | |
| Notify BLM/NMOCD 24 hours prior to Spud; BOP testing, and Casing and Cementing. | | | | | | | |
| Form 46 Reviewed by: | | | | Logging program reviewed by: N/A | | | |
| PREPARED BY: | | APPROVED: | | DATE: | | | |
| KAS/MNP/JMP | | | | October 9, 2003 | | | |
| Form 46 12-00 MNP | | | | Version 1.0 | | | |

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Warren Com
County: San Juan

1M
State: New Mexico

| Formation | TVD | Anticipated Bottom Hole Pressure | Maximum Anticipated Surface Pressure ** |
|----------------|------|-------------------------------------|--|
| Ojo Alamo | 1396 | | |
| Fruitland Coal | 2096 | | |
| PC | 2323 | | |
| Lewis Shale | 2540 | | |
| Cliff House | 3646 | 500 | 0 |
| Menefee Shale | 4035 | | |
| Point Lookout | 4588 | 600 | 0 |
| Mancos | 4950 | | |
| Dakota | 6639 | 2600 | 1500 |

** Note: Determined using the following formula: $ABHP - (.22 \times TVD) = ASP$

Requested BOP Pressure Test Exception: 1500 psi

SAN JUAN BASIN
Dakota Formation
Pressure Control Equipment

Background

The objective Dakota formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin Dakota. No abnormal temperature, pressure, or H2S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth 11" nominal or 7 1/16", 3000 psi
double ram preventer with rotating
head.

All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 1/2" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

~~BP is currently using 3% CaCl₂ in our slurry and achieves 300 psi compressive strength after 1 hr 50 min and 500 psi after 3 hrs 8 min. We, therefore, request approval to initiate blowout preventer (BOP) nipple up operations after a 2 hour wait on cement time in lieu of the 6 hour time frame required by rule to achieve 300 psi compressive strength with Class B cement slurry at 80 deg F.~~

60°F profile must be followed