

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. SF - 078040
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: corleyml@bp.com		8. Lease Name and Well No. MUDGE A 11M
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. 3004531378
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SENW Lot F 1780FNL 1715FWL 36.54900 N Lat, 107.58900 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 8 MILES TO AZTEC, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area F Sec 10 T31N R11W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 745'	16. No. of Acres in Lease 320.00	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1300'	19. Proposed Depth 7407 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6118 GL	22. Approximate date work will start 03/30/2003	17. Spacing Unit dedicated to this well 320.00 W/2
		20. BLM/BIA Bond No. on file WY2924
		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 02/06/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) /s/ David J. Mankiewicz	Name (Printed/Typed)	DATE MAR 27 2003
Title	Office	

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 #18364 verified by the BLM Well Information System  
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

This action is subject to technical and procedural review pursuant to 43 CFR 3165.8 and appeal pursuant to 43 CFR 3165.4

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

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*

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

<sup>1</sup> API Number 30-045-31378	<sup>2</sup> Pool Code 71599 & 72319	<sup>3</sup> Pool Name BASIN DAKOTA & BLANCO MESA VERDE
<sup>4</sup> Property Code 000905	<sup>5</sup> Property Name Mudge A	<sup>6</sup> Well Number # 11M
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name BP AMERICA PRODUCTION COMPANY	<sup>9</sup> Elevation 6118

<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
F	10	31 N	11 W		1780	NORTH	1715	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

<sup>7</sup> UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 32.0	<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

<div><p>16</p><p>1780'</p><p>Azimuth - 348°58' 927"</p><p>1715'</p><p>10</p><p>MAR 2003</p></div>	<div><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>Mary Corley</i> Signature <i>Mary Corley</i> Printed Name Regulatory Analyst Title 02.04.2003 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>January 15, 2003 Date of Survey</p><p>Signature and Seal of Professional Surveyor <i>GARY D. VANN</i> 7016 7016 Certificate Number</p></div>
---	--

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

**Prospect Name:** Mudge A  
**Lease:** MUDGE A  
**County:** San Juan  
**State:** New Mexico  
**Date:** January 27, 2003

**Well No:** 11M  
**Surface Location:** 10-31N-11W, 1780 FNL, 1715FWL  
**Field:** Blanco Mesaverde/Basin Dakota

**OBJECTIVE:** Drill 70' below the base of the Lower Cubero, set 4 1/2" production casing, Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER									
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6118		Estimated KB: 6132							
Rotary	0 - TD	MARKER		SUBSEA	TVD.						
<b>LOG PROGRAM</b>  <table border="1"> <thead> <tr> <th>TYPE</th> <th>DEPTH INVERAL</th> </tr> </thead> <tbody> <tr> <td><u>OPEN HOLE</u> none</td> <td></td> </tr> <tr> <td><u>CASED HOLE</u> GR-CCL-TDT CBL</td> <td>TDT - TD to 7" shoe Identify 4 1/2" cement top</td> </tr> </tbody> </table>		TYPE	DEPTH INVERAL	<u>OPEN HOLE</u> none		<u>CASED HOLE</u> GR-CCL-TDT CBL	TDT - TD to 7" shoe Identify 4 1/2" cement top	Ojo Alamo		4419'	1713'
		TYPE	DEPTH INVERAL								
		<u>OPEN HOLE</u> none									
		<u>CASED HOLE</u> GR-CCL-TDT CBL	TDT - TD to 7" shoe Identify 4 1/2" cement top								
		Kirkland		4271'	1861'						
		Fruitland		4017'	2115'						
		Fruitland Coal	*	3762'	2370'						
		Pictured Cliffs	*	3331'	2801'						
		Lewis Shale	#	3167'	2963'						
		Cliff House	#	1817'	4315'						
		Menefee Shale	#	1507'	4625'						
		Point Lookout	#	1073'	5059'						
		Mancos		760'	5372'						
		Greenhorn		-971'	7103'						
		Bentonite Marker		-1018'	7150'						
<b>REMARKS:</b> - Please report any flares (magnitude & duration).		Two Wells	#	-1078'	7210'						
		Paguate	#	-1162'	7294'						
		Cubero Upper	*	-1187'	7319'						
		Cubero Lower	*	-1205'	7337'						
		<b>TOTAL DEPTH</b>		-1275'	7407'						
		# Probable completion interval		* Possible Pay							
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME							
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH						
None		none	Production hole	Geolograph	0-TD						
REMARKS:											

**MUD PROGRAM:**

Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 200	Spud	8.6-9.2			
200 - 3163 (1)	Water/LSND	8.6-9.2		<6	
3163 - 7407	Gas/Air/N2/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	200	9 5/8"	H-40 ST&C	32#	12.25"	1
Intermediate 1	3163	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7407	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:**

HGJ/MNP/JMP

January 27, 2003

Form 46 12-00 MNP

Version 1.0

# BP America Production Company BOP Pressure Testing Requirements

Well Name: Mudge A  
County: San Juan

11M  
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1713		
Fruitland Coal	2370		
PC	2801		
Lewis Shale	2963		
Cliff House	4315	500	0
Menefee Shale	4625		
Point Lookout	5059	600	0
Mancos	5372		
Dakota	7210	2600	1449

\*\* 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