

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. NMNM - 03563
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. GAGE 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. 30045 32025
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NWSE Lot J 1820FSL 2390FEL 36.47700 N Lat, 107.54400 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* 5.3 MILES FROM AZTEC, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area Sec 20 T30N R10W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 782	16. No. of Acres in Lease 309.22	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1892	19. Proposed Depth 7361 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6215 GL	22. Approximate date work will start 02/08/2004	17. Spacing Unit dedicated to this well 309.22 SP
		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 12/17/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature)	Name (Printed/Typed) David J. Mankiewicz	Date FEB 17 2004
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 #26232 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 3165.3 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

1 API Number		2 Pool Code		3 Pool Name	
		71599 & 72314		BASIN DAKOTA & BLANCO MESAVERDE	
4 Property Code		5 Property Name			6 Well Number
000567		Gage Com			# 1M
7 OGRID No.		8 Operator Name			9 Elevation
000778		BP AMERICA PRODUCTION COMPANY			6215

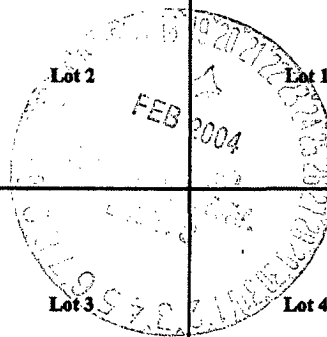
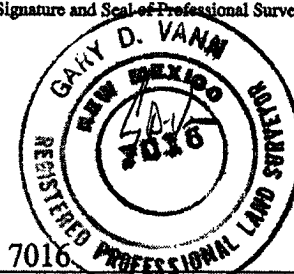
10 Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J (Lot 6)	20	30 N	10 W		1820	SOUTH	2390	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

12 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
13 Dedicated Acres		14 Joint or Infill		15 Consolidation Code		16 Order No.			
309.22									

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

16		5185(R)		17 OPERATOR CERTIFICATION	
				I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>Mary Conley</i> Printed Name: Mary Conley Title: Sr. Regulatory Analyst Date: 12.10.2003	
Stewart LS 5 30-045-13210 1650' FSL & 990' FWL MV		20 Lot 8 Lot 7 Lot 6 Lot 5 Lot 4 Lot 3 Lot 2 Lot 1		18 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. Date of Survey: October 29, 2003 Signature and Seal of Professional Surveyor: <i>GARY D. VANN</i>  Certificate Number: 7016	
Lot 9 Lot 10 Lot 11 Lot 12 Gage Com 1 E 30-045-24917 810' FSL & 790' FEL MV		2390' 1820' 5163(R)			

(R) - BLM Record

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

Prospect Name: Gage Com
Lease: Gage Com
County: San Juan
State: New Mexico

Well No: 1 M
Surface Location: 20-30N-10W, 1820 FSL, 2390 FEL
Field: Blanco Mesaverde/Basin Dakota

Date: November 3, 2003

OBJECTIVE: Drill 220' below the top of the Two Wells; 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: 6222		Estimated KB: 6236	
Rotary		0 - TD					
LOG PROGRAM							
<u>TYPE</u>		<u>DEPTH INTERVAL</u>		<u>MARKER</u>		<u>SUBSEA</u>	
<u>OPEN HOLE</u>						<u>TVD.</u>	
None				Ojo Alamo		4854'	
				Kirkland		4762'	
				Fruitland		4066'	
				Fruitland Coal		3766'	
				* Pictured Cliffs		3529'	
				* Lewis Shale		3287'	
				# Cliff House		1995'	
				# Menefee Shale		1774'	
				# Point Lookout		1237'	
<u>CASED HOLE</u>				Mancos		862'	
GR-CCL-TDT		TDT - TD to 7" shoe		Greenhorn		-772'	
CBL		Identify 4 1/2" cement top		Bentonite Marker		-834'	
REMARKS: - Please report any flares (magnitude & duration).				# Two Wells		-884'	
				# Paguete		-956'	
				# Cubero Upper		-1014'	
				# Cubero Lower		-1055'	
				# Encinal Canyon		-1094'	
				TOTAL DEPTH		-1124'	
				# Probable completion interval		* Possible Pay	
SPECIAL TESTS				DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE				FREQUENCY DEPTH		FREQUENCY DEPTH	
None				10' 3089' -TD		Geolograph 0-TD	
REMARKS:							
MUD PROGRAM:							
Approx. Interval		Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification	
0 - 120		Spud	8.6-9.2				
120 - 3089 (1)		Water/LSND	8.6-9.2		<6		
3089 - 7361		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	120	9 5/8"	H-40 ST&C	32#	13.5"	1	
Intermediate 1	3089	7"	J/K-55 ST&C	20#	8.75"	1,2	
Production	7361	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				November 3, 2003			
Form 46 12-00 MNP				Version 1.0			

BP America Production Company BOP Pressure Testing Requirements

Well Name: Gage Com
County: San Juan

1 M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1402		
Fruitland Coal	2408		
PC	2744		
Lewis Shale	2989		
Cliff House	4264	500	0
Menefee Shale	4525		
Point Lookout	5064	600	0
Mancos	5333		
Dakota	7141	2600	1449

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

Requested BOP Pressure Test Exception: 750 psi

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 rigs 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

Below conductor casing to total depth

BOP Equipment

9", 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 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 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.

see BLM General Requirements

Cementing Program

Well Name: Gage Com 1M
 Location: 20-30N-10W, 1820 FSL, 2390 FEL
 County: San Juan
 State: New Mexico

Field: Blanco Mesaverde / Basin Dakota
 API No.
 Well Flac
 Formation: Dakota MesaVerde
 KB Elev (est) 6236
 GL Elev. (est) 6222

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	120	13.5	9.625	ST&C	Surface	NA	
Intermediate	3089	8.75	7	LT&C	Surface	NA	
Production -	7361	6.25	4.5	ST&C	2989	NA	

Casing Properties:

(No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Surface		9.625	32 H-40	3370	1400	254	0.0787	8.845
Intermediate		7	20 K-55	3740	2270	234	0.0405	6.456
Production -		4.5	11.6 J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
0 - SCP	Water/Spud	8.6-9.2
SCP - ICP	Water/LSND	8.6-9.2
ICP - ICP2	Gas/Air Mist	NA
ICP2 - TD	LSND	8.6 - 9.2

Recommended Mud Properties Prio Cementing:

PV <20
 YP <10
 Fluid Loss <15

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

Notes:

*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

Surface:

Preflush	20 bbl.	Fresh Water	
Slurry 1	110 sx Class G Cement		117 cuft
TOC@Surface	+ 3% CaCl ₂ (accelerator)		
	+ 0.25 #/sk Cellophane Flake (lost circulation additive)		0.4887 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95

Casing Equipment:
 9-5/8", 8R, ST&C
 1 Guide Shoe
 1 Top Wooden Plug
 1 Autofill insert float valve
 Centralizers, 1 per joint except top joint
 1 Stop Ring
 1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water
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Cementing Program

Lead Slurry 1 TOC@Surface		260 sx Class "G" Cement + 3% D79 extender +1/4 #/sk. Cellophane Flake + 5 lb/sk Gilsonite	670 cuft
Tail Slurry 2	500 ft fill	60 sx 50/50 Class "G"/Poz + 2% gel (extender) +1/4 #/sk. Cellophane Flake + 2% CaCl2 (accelerator) + 5 lb/sk Gilsonite	75 cuft 0.1503 cuft/ft OH 0.1746 cuft/ft csg ann
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.63	15.8
Slurry 2	13.5	1.27	5.72
Casing Equipment:	7", 8R, ST&C 1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers one in middle of first joint, then every third collar 1 Top Rubber Plug 1 Thread Lock Compound		
<hr/>			
Production:	Fresh Water	10 bbl	CW100
Lead Slurry 1 TOC, 400' above 7" shoe		190 LiteCrete D961 / D124 / D154 + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC	460 cuft
Tail Slurry 2	1528 ft fill	160 sx 50/50 Class "G"/Poz + 5% D20 gel (extender) + 0.1% D46 antifoam + 1/4 #/sk. Cellophane Flake + 0.25% D167 Fluid Loss + 5 lb/sk Gilsonite +0.1% d800, retarder +0.15% D65, dispersant	219 cuft 0.1026 cuft/ft OH 0.1169 cuft/ft csg ann
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	9.5	2.52	6.38
Slurry 2	13	1.44	6.5
Casing Equipment:	4-1/2", 8R, ST&C 1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Stop Ring Centralizers, every 4th joint in mud drilled holes, none in air drilled holes. 1 Top Rubber Plug 1 Thread Lock Compound		
			Top of Mancos 5333