

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No. **SF - 080004**

6. If Indian, Allottee or tribe Name

7. If Unit or CA Agreement, Name and No

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well Gas ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.

Florance Gas Com E 9B

2. Name of Operator

BP America Production Company Attn: Mary Corley

9. API Well No.

3004531947

3a. Address

P.O. Box 3092 Houston, Texas 77253

3b. Phone No. (include area code)

281-366-4491

10. Field and Pool, or Exploratory

Blanco Mesaverde

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface **830' FSL & 2080' FEL Unit O**

At proposed prod. Zone

11. Sec., T., R., M., or Blk, and survey or Area

0 Sec. 13, T30N, R09W

14. Distance in miles and direction from nearest town or post office*

17 miles from Aztec, NM

12. County or Parish

San Juan

13. State

New Mexico

15. Distance from proposed*
Location to nearest
Property or lease line, ft.

(Also to nearest drig. Ujnit line, if any) **830'**

16. No. of Acres in lease

320

17. Spacing Unit dedicated to this well

320 S/2

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

1300'

19. Proposed Depth

5133'

20. BLM/BIA Bond No. on file

WY2924

21. Elevations (show whether DF, KDB., RT, GL, etc.

5776' GL

22. Approximate date work will start*

December 15, 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

Mary Corley

Name (Printed/typed)

Mary Corley

Date

10/06/2003

Title

Senior Regulatory Analyst

Approved by **David J. Mankiewicz**

Name (Printed/Typed)

Date

DEC - 9 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.

*(Instructions on reverse)

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

NMOCD

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

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 30.045-31947		² Pool Code 72319		³ Pool Name BLANCO MESAVERDE	
⁴ Property Code 000536		⁵ Property Name Florance Gas Com E			⁶ Well Number # 9B
⁷ OGRID No. 000778		⁸ Operator Name BP AMERICA PRODUCTION COMPANY			⁹ Elevation 5776

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
0	13	30 N	9 W		830	SOUTH	2080	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

⁷ UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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>16</div> <div>5242(R)</div> <div>DEC 2003 RECEIVED OIL CONSERV. DIV. DIST. 3</div> <div>13</div> <div>830'</div> <div>2080'</div> <div>526(V(R))</div>		<div>¹⁷ OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div><i>Mary Corley</i> Signature MARY CORLEY Printed Name Sr. Regulatory Analyst Title 10.06.2003 Date</div>
		<div>¹⁸ SURVEYOR CERTIFICATION</div> <div>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.</div> <div>September 4, 2003 Date of Survey Signature and Seal of Professional Surveyor <div>GARY D. VANN NEW MEXICO REGISTERED 7016 PROFESSIONAL LAND SURVEYOR 7016 Certificate Number</div></div>

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

Prospect Name: Florance GC E
Lease: Florance GC E
County: San Juan
State: New Mexico
Date: September 11, 2003

Well No: 9 B
Surface Location: 13-30N-9W, 815 FNL, 2080 FEL
Field: Blanco Mesaverde

OBJECTIVE: Drill 400' below the top of the Point Lookout Sandstone, set 41/2" production liner, Stimulate CH, MF and PL intervals						
METHOD OF DRILLING			APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING	Estimated GL: 5781'		Estimated KB: 5795'	
Rotary		0 - TD				
LOG PROGRAM						
TYPE		DEPTH INVERAL				
<u>OPEN HOLE</u>						
None						
<u>CASED HOLE</u>						
GR-CCL-TDT		TDT - TD to 7" shoe				
CBL		Identify 4 1/2" cement top				
REMARKS: - Please report any flares (magnitude & duration).			MARKER		SUBSEA	TVD
			Ojo Alamo	4270	1525	
			Kirtland	4191	1604	
			Fruitland	3857	1938	
			Fruitland Coal	3586	2210	
			Pictured Cliffs	3273	2522	
			Lewis	2994	2801	
			Cliff House	1749	4046	
			Menefee	1426	4369	
			Point Lookout	1062	4733	
			Mancos	747	5048	
			TOTAL DEPTH	662	5133	
			# Probable completion interval		* Possible Pay	
SPECIAL TESTS			DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE			FREQUENCY	DEPTH	FREQUENCY	DEPTH
None			None	Production hole	Geograph	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 - 2160 (1)	Water/LSND	8.6-9.2		<6		
2160 - 5133	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#	12.25"	1
Intermediate 1	2160	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	5133	4 1/2"	J-55	10.5#	6.25"	3,4
REMARKS:						
(1) Circulate Cement to Surface						
(2) Set casing 50' above Fruitland Coal						
(3) Bring cement 100' above 7" shoe						
(4) 100' Overlap						
CORING PROGRAM:						
None						
COMPLETION PROGRAM:						
Rigless, 2-3 Stage Limited Entry Hydraulic Frac (Produced Water)						
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				September 11, 2003		
				Version 1.0		
Form 46 12-00 MNP						

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Florance GC E
County: San Juan

9 B
State: New Mexico

Formation	Estimated TVD/MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1525		
Fruitland Coal	2210		
PC	2522		
Lewis Shale	2801		
Cliff House	4046	500	0
Menefee Shale	4369		
Point Lookout	4733	600	0
Mancos	5048		
Dakota	-	2600	1374

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

Requested BOP Pressure Test Exception: 750 psi

SAN JUAN BASIN Mesaverde Formation Pressure Control Equipment

Background

Mesaverde
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

Blanco Mesaverde

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.

Cementing Program

Well Name: Florance GC E9B
 Location: 13-30N-09W, 815 FNL, 2080 FEL
 County: San Juan
 State: New Mexico

Field: Blanco Mesaverde
 API No.
 Well Flac
 Formation: MesaVerde
 KB Elev (est) 5795
 GL Elev. (est) 5781

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	12.25	9.625	ST&C	Surface	NA	
Intermediate	2160	8.75	7	ST&C	Surface	NA	
Production -	5133	6.25	4.5		2060	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	2070-3370	1400	254	0.0787	8.845
Intermediate	7	20	K-55	3740	2270	254	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 Los: <15

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	100	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	72	110	159
Time Between Stages, (hr)	NA	NA	NA
Special Instructions	1,6	1,6	2,6

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.	FreshWater	
Slurry 1	70 sx Class G Cement		81
TOC@Surface	+ 2% CaCl2 (accelerator)		75 cuft
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.3132 cuft/ft OH
	0.1% D46 antifoam		100 % excess
Slurry Properties:	Density (lb/gal)	Yield (ft3/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

Cementing Program

1 Stop Ring
1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		190 sx Class "G" Cement	<i>494</i> 484 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam	
Tail		60 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
		0.1% D46 antifoam	
500 ft fill		+ 1/4 #/sk. Cellophane Flake	0.1503 cuft/ft OH
		+ 2% S1 Calcium Chloride	0.1746 cuft/ft csg ann
			80 % excess

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)
Slurry 1	11.7	2.61	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment: 7", 8R, ST&C

- 1 Float Shoe
- 1 Float Collar
- 1 Stop Ring
- Centralizers, one every other joint to base of Ojo
- 2 Turbolizers across Ojo
- Centralizers, one every 4th joint from Ojo to base of surface casing
- 1 Top Rubber Plug
- 1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Slurry		180 LiteCrete D961 / D124 / D154	<i>454</i> 443 cuft
		+ 0.03 gps D47 antifoam	
		+ 0.5% D112 fluid loss	
TOC@Liner Top		+ 0.11% D65 TIC	

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)	
Slurry	9.5	2.52	6.38	0.1026 cuft/ft OH
				40 % excess
				0.1169 cuft/ft csg ann

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