

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM 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 - 080000
1b. 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
2. Name of Operator BP AMERICA PRODUCTION COMPANY Contact: CHERRY HLAVA E-Mail: hlavacl@bp.com		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092		8. Lease Name and Well No. FLORANCE 27S
3b. Phone No. (include area code) Ph: 281.366.4081 Fx: 281.366.0700		9. API Well No. 30045 32354
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW Lot 14 1285FNL 1920FWL 36.41600 N Lat, 107.45200 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* 14.7 MILES SOUTH/EAST FROM BLOOMFIELD, NM		11. Sec., T., R., M., or Blk. and Survey or Area N Sec 26 T29N R9W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1285		12. County or Parish SAN JUAN
16. No. of Acres in Lease 2230 MD		13. State NM
17. Spacing Unit dedicated to this well 295.73 W 2		18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
19. Proposed Depth 2230 MD		20. BLM/BIA Bond No. on file WY2924
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5636 GL		22. Approximate date work will start 08/15/2004
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) CHERRY HLAVA	Date 05/13/2004
Title REGULATORY ANALYST		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 8-17-09
Title AFM	Office FFO	

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 #29853 verified by the BLM Well Information System  
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

EVALUATION OF THIS DOCUMENT IS AUTHORIZED AND  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

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

NMOC

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 30-045-32354		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal		
4 Property Code 000518		5 Property Name Florance			6 Well Number # 27S	
7 OGRID No. 000778		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 5636	

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
N (Lot 14)	26	29 N	9 W		1285	SOUTH	1920	WEST	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 320295.73		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

						<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature: <u>Cherry Hava</u> Printed Name: <u>Cherry Hava</u> Title: <u>Regulatory Analyst</u> Date: <u>5-13-04</u>	
<b>18 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. Revised: April 19, 2004 February 24, 2004 Date of Survey Signature and Seal of Professional Surveyor  7016 Certificate Number							

## **Additional Operator Remarks:**

Notice of Staking was submitted on 05/07/2004

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 2230 feet and complete into the Basin Fruitland Coal as per the attached drilling plan.

### **SUPPLEMENTAL TO SURFACE USE PLAN**

#### **New Facilities:**

A 4" diameter buried steel pipeline that is + or - 800 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by El Paso Services.

If conditions allow, it is our intent to pre-set the 9 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II, 20% FLYASH, 14.5 PPG, 7.41 gal/sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set the approved cement program will be followed.

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

**Prospect Name:** Florance  
**Lease:**

**County:** San Juan  
**State:** New Mexico  
**Date:** April 26, 2004

**Well No:** 27S  
**Surface Location:** Section 26, T29N, R09W; 1285'  
FSL, 1920' FWL  
**Field:** Basin Fruitland Coal

<b>OBJECTIVE:</b> Drill to a TD of 2230' kb set 7" casing and perf and frac the Fruitland Coal interval.							
<b>METHOD OF DRILLING</b>				<b>APPROXIMATE DEPTHS OF GEOLOGICAL MARKER</b>			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 5632		Estimated KB: 5645	
Rotary		0 – 2217' MD, 2230' KB					
<b>LOG PROGRAM</b>							
<b>TYPE</b>		<b>DEPTH INVERAL</b>		<b>MARKER</b>		<b>SUBSEA</b>	
<b>OPEN HOLE</b>						<b>MEAS. DEPTH</b>	
Run1: Run Platform Express (array induction, 3-detector Litho-Density, compensated neutron, caliper, microlog, SP and gamma ray). (see Remarks section below).		TD up to minimum charge.		Ojo Alamo		4547 1098	
				Kirtland		4503 1142	
				Fruitland		3773 1872	
				Fruitland Coal		3773 1872	
				Pictured Cliffs		3563 2082	
Run 2: Run dipole sonic (compressional and shear delta t required for frac gradient log)		TD up to minimum charge.					
<b>REMARKS:</b> - Primary presentation is Bulk Density Presentation (5"=100') with <1.75 g/cc shaded as coal. High resolution pass across the Fruitland interval only. Three final prints to Dennis Hilkewich in Houston. Customer LAS file to Dennis Hilkewich in Houston – hilkewdn@bp.com							
				TOTAL DEPTH		3415 2230	
				# Probable completion interval		* Possible Pay	
<b>SPECIAL TESTS</b>				<b>DRILL CUTTING SAMPLES</b>		<b>DRILLING TIME</b>	
TYPE				FREQUENCY DEPTH		FREQUENCY DEPTH	
None				none none		Geolograph 0-2230	
<b>REMARKS:</b>							
<b>MUD PROGRAM:</b>							
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 - 2230 (1)		Water/LSND	8.6-9.2		<6		
<b>REMARKS:</b> (1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.							
<b>CASING PROGRAM:</b> (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, WT	Weight	Hole Size	Landing Pt, Cmt, Etc.	
Surface/Conductor	120	8-5/8"	H-40, 8 RND	20.0	12.5"	1	
Intermediate	2230	5-1/2"	J-55, 8 RND	15.5	8.75"	1	
<b>REMARKS:</b> (1) Circulate Cement to Surface							
<b>CORING PROGRAM:</b> None							
<b>COMPLETION PROGRAM:</b> Rigless, Single Stage Limited Entry Hydraulic Frac							
<b>GENERAL REMARKS:</b> Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.							
Form 46 Reviewed by:				Logging program reviewed by: N/A			
<b>PREPARED BY:</b>		<b>APPROVED:</b>		<b>DATE:</b>			
Daniel Crosby				4/26/2004			
Form 46 12-00 MNP							

## BOP Test Pressure

### BP America Production Company BOP Pressure Testing Requirements

Well Name: Florance 27S

County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1098		
Kirtland	1142		
Fruitland Coal	1872	400	0
PC			
Lewis Shale			
Cliff House			
Menefee Shale			
Point Lookout			
Mancos			
Dakota			

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

Requested BOP Pressure Test Exception: 850 psi

**SAN JUAN BASIN  
Fruitland Formation  
Pressure Control Equipment**

#### Background

The objective Fruitland Coal 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 Fruitland Coal. 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.

# Cementing Program

Well Name: <b>Florance 27S</b> Location: <b>Sec 26 - 29N - 09W, 1095' FSL, 1785' FWL</b> County: <b>San Juan</b> State: <b>New Mexico</b>	Field: <b>Basin Fruitland Coal</b> API No. <b></b> Well Flac <b></b> Formation: <b>Fruitland Coal</b> KB Elev (est) <b>5645</b> GL Elev. (est) <b>5632</b>
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## Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)
Surface	120	12.5	8 5/8	8rd	Surface
Production -	2230	8.75	5 1/2	8rd	Surface

## Casing Properties:

(No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft)	Grade
Surface	8 5/8	20	<del>H-40</del> X-42
Production -	5 1/2	15.5	J-55

## Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
0 - SCP	Water/Spud	8.6-9.2	PV <20 YP <10 Fluid Loss <6
SCP - TD	Water/LSND	8.6-9.2	

## Cementing Program:

	Surface	Production
Excess %, Lead	100	40
Excess %, Tail	NA	40
BHST (est deg. F)	75	120
Special Instructions	1,6,7	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.	FreshWater	
Slurry 1	80 sx Class C Cement		99 cuft
TOC@Surface	+ 2% CaCl <sub>2</sub> (accelerator)		
			0.4127 cuft/ft OH

## Slurry Properties:

	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

## Casing Equipment:

8-5/8", 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

## Production:

Fresh Water	10 bbl	CW100	
Lead	230 sx Class "G" Cement		593 cuft
Slurry 1	+ 3% D79 extender		

## Cementing Program

TOC@Surface		+ 2% S1 Calcium Chloride +1/4 #/sk. Cellophane Flake + 0.1% D46 antifoam'		
Tail		140	50/50 Class "G"/Poz	177 cuft
Slurry 2		+ 2% gel (extender) 0.1% D46 antifoam +1/4 #/sk. Cellophane Flake + 2% CaCl <sub>2</sub> (accelerator)		
	500 ft fill			0.2526 cuft/ft OH 0.2009 cuft/ft csg ann
Slurry Properties:		Density	Yield	Water
		(lb/gal)	(ft <sup>3</sup> /sk)	(gal/sk)
Slurry 1		11.4	2.61	17.77
Slurry 2		13.5	1.27	5.72
Casing Equipment:		5 1/2", 8R, ST&C 1 Float Shoe (autofill with minimal LCM in mud) 1 Float Collar (autofill with minimal LCM in mud) 1 Top Rubber Plug 1 Thread Lock Compound		

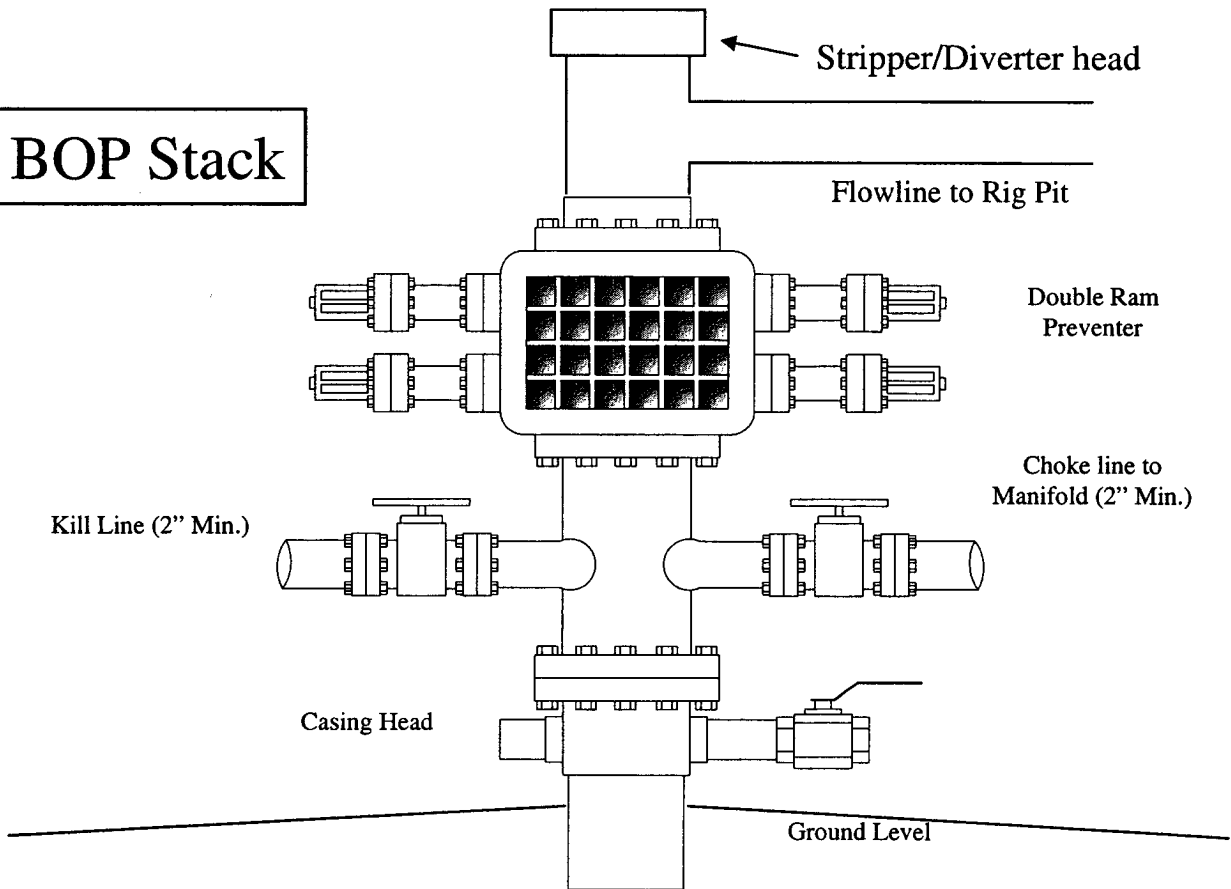
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# BP American Production Company

## Well Control Equipment Schematic



### BOP Stack



### Choke & Kill Manifold

