

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. NM - 078578-A nms
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		7. If Unit or CA Agreement, Name and No.
Contact: CHERRY HLAVA E-Mail: hlavacl@bp.com		8. Lease Name and Well No. FLORANCE Z 3S
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092	3b. Phone No. (include area code) Ph: 281.366.4081 Fx: 281.366.0700	9. API Well No. 30045 32428
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESE 1330FSL 890FEL 36.79361 N Lat, 107.67528 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* 2 MILES FROM NAVAJO DAM, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 21 T30N R8W Mer NMP I
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 890'	16. No. of Acres in Lease 2804 MD	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 80'	19. Proposed Depth 2804 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5840 GL	22. Approximate date work will start 10/15/2004	17. Spacing Unit dedicated to this well 320.00 F2
23. Estimated duration 7 DAYS		20. BLM/BIA Bond No. on file WY2924

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 06/21/2004
Title REGULATORY ANALYST		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 8-17-04
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 #32182 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



Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
March 4, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	New Well
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	Florance Z (Federal well SF - 078578-A)
8. Well Number	3 S
9. OGRID Number	000778
10. Pool name or Wildcat	Basin Fruitland Coal

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5840' GR

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL I Sect 21 Twp 30N Rng 08W Pit type Drilling Depth to Groundwater 50'-100' Distance from nearest fresh water well >1000'  
Distance from nearest surface water >1000' Below-grade Tank Location UL I Sect 21 Twp 30N Rng 08W ;  
1430 feet from the South line and 875 feet from the East line PLEASE SEE ATTACHED PAD

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPLETION <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>
OTHER: Lined Drilling PIT PERMIT <input checked="" type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please reference BP America's San Juan Basin Drilling/Workover Pit Construction Plan on file with the NMOCD. Pit Construction Plan issued date of 04/15/2004. Pit will be closed according to closure plan on file

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Cherry Hlava TITLE Regulatory Analyst DATE 6/21/04

Type or print name Cherry Hlava E-mail address: Telephone No. 281-366-4081

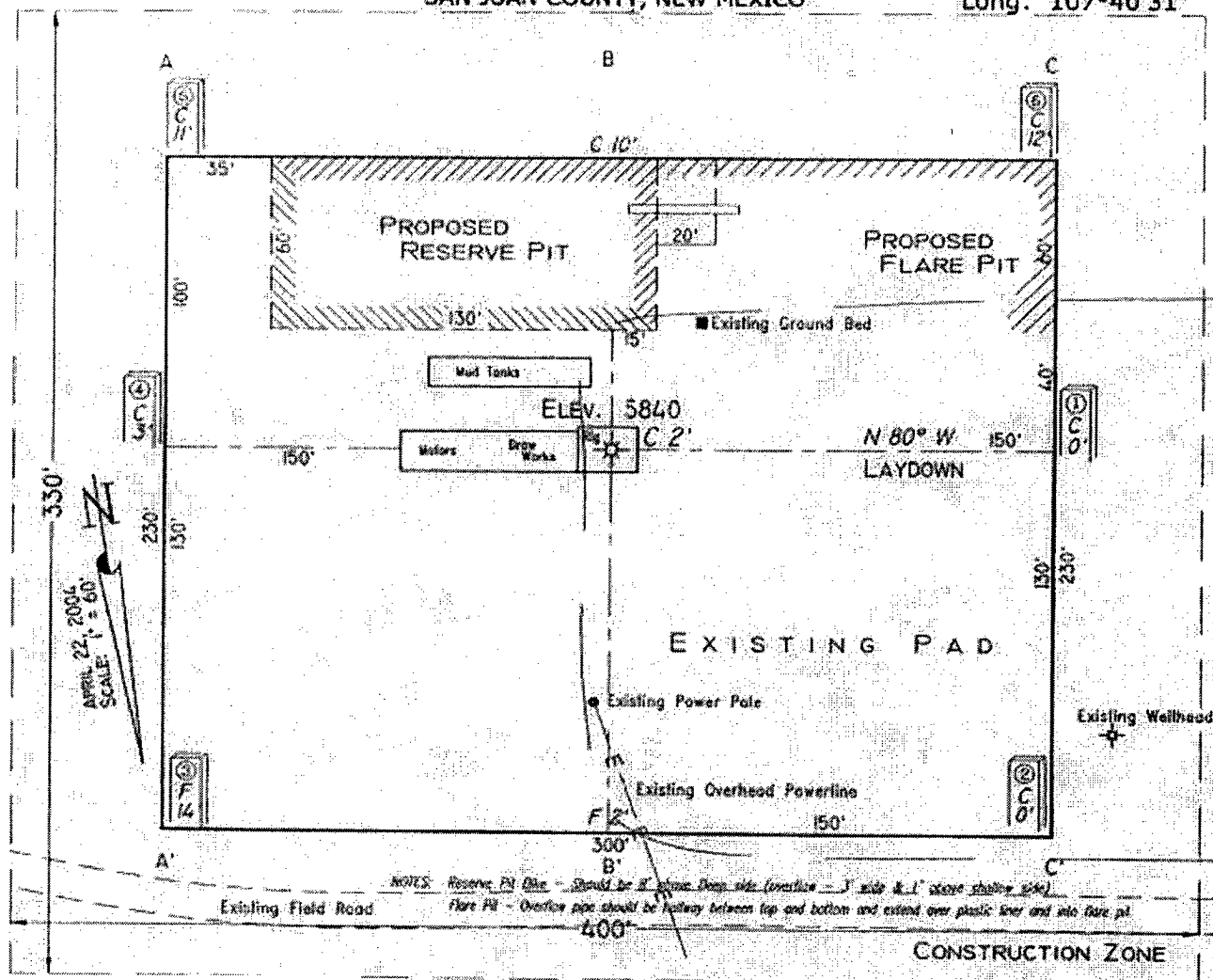
(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 05 DATE AUG 20 2004

Conditions of approval, if any:

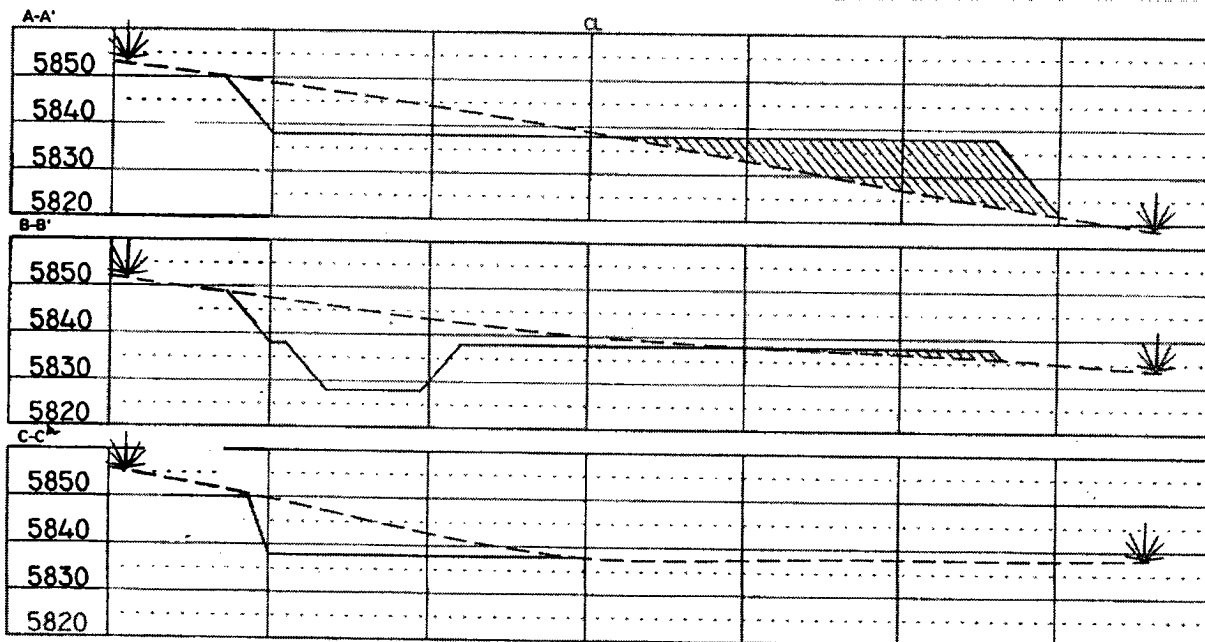
**PAD LAYOUT PLAN & PROFILE**  
**BP AMERICA PRODUCTION COMPANY**  
 Florence Z # 3S  
 1330' F/SL 890' F/EL  
 SEC. 21, T30N, R8W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36°47'37"  
 Long: 107°40'31"



Area of Construction Zone - 330'x400' or 3.01 acres, more or less.

SCALE: 1"=60' HORIZ.  
 1"=40' VERT.



NOTE: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

Form 46 12-00 MNP

## Cementing Program

Well Name:	Florance Z 3S	Field:	Basin Fruitland Coal
Location:	Sec 21 - 30N - 08W, 1330' FSL, 890' FEL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Fruitland Coal
		KB Elev (est)	5853
		GL Elev. (est)	5840

### 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 -	2804	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	H-40 X-42
Production -	5 1/2	15.5	J-55

### Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
			PV <20
			YP <10
			Fluid Loss <6
0 - SCP	Water/Spud	8.6-9.2	
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% CaCl2 (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	310 sx Class "G" Cement		796 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% CaCl2 (accelerator)		
	500 ft fill			0.2526 cuft/ft OH
				0.2009 cuft/ft csg ann
Slurry Properties:		Density	Yield	Water
		(lb/gal)	(ft3/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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## BOP Test Pressure

### BP America Production Company BOP Pressure Testing Requirements

Well Name: Florance Z 3S

County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1470		
Kirtland	1625		
Fruitland Coal	2492	400	0
PC	2654		
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 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.

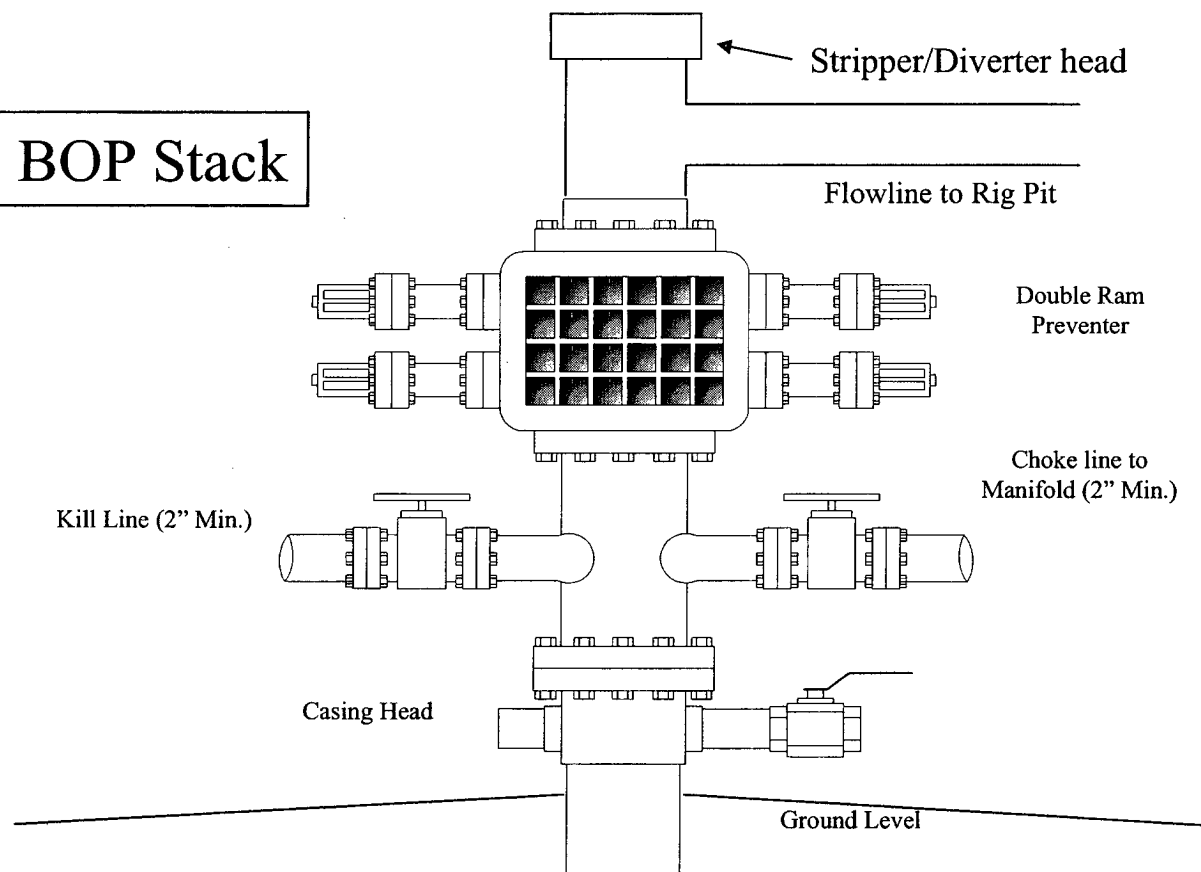
All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock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



**BP American Production Company**  
Well Control Equipment Schematic



**BOP Stack**



**Choke & Kill Manifold**

