

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

5.2 Lease Serial No. SF - 076824 80000

6. If Indian, Allottee or tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No.

Florance 27S

9. API Well No.

30-045-33/30

10. Field and Pool, or Exploratory
Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and survey or Area
SECTION 26 T29N & R09W

L

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) 990'

16. No. of Acres in lease
295.73

17. Spacing Unit dedicated to this well
295.73

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

19. Proposed Depth
2172' MD

20. BLM/BIA Bond No. on file
WY2924

21. Elevations (show whether DF, KDB., RT, GL, etc.)
5627 GL

22. Approximate date work will start*
07/15/05

23. Estimated duration
3 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

Cherry Hlava

Name (Printed/typed)

Cherry Hlava

Date

05/26/2005

Title

Regulatory Analyst

Approved by (Signature)

Jim Lovato

Name (Printed/Typed)

Date

8/25/05

Title

Field Manager

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)

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

NMOC

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

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 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 000 518	⁵ Property Name Florance	⁶ Well Number # 27S
⁷ OGRID No. 000 778	⁸ Operator Name BP AMERICA PRODUCTION COMPANY	⁹ Elevation 5627

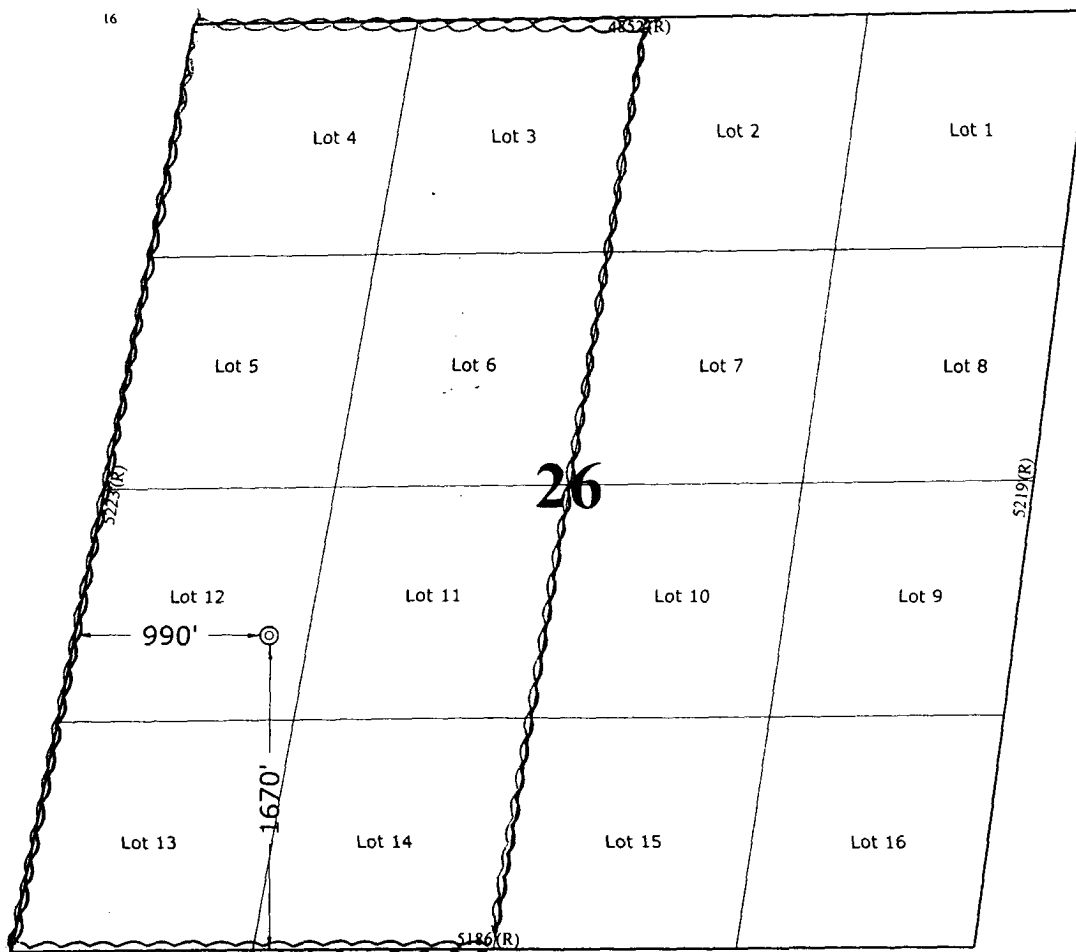
¹⁰ Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L (Lot 12)	26	29 N	9 W		1670	SOUTH	990	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 295.72	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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Cherry Hlava
Signature
Cherry Hlava
Printed Name
Regulatory Analyst
Title
5-25-05
Date

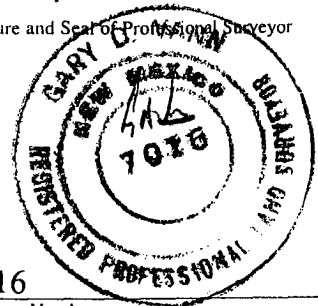
¹⁸ SURVEYOR CERTIFICATION

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.

Restaked: May 10, 2005
December 15, 2004

Date of Survey

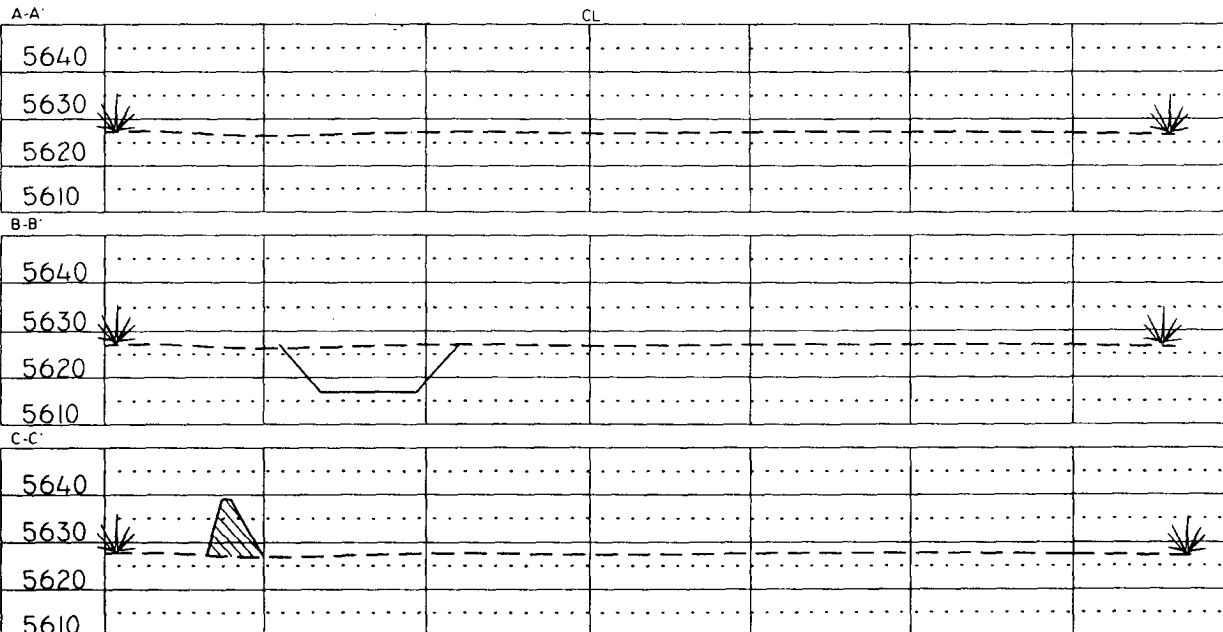
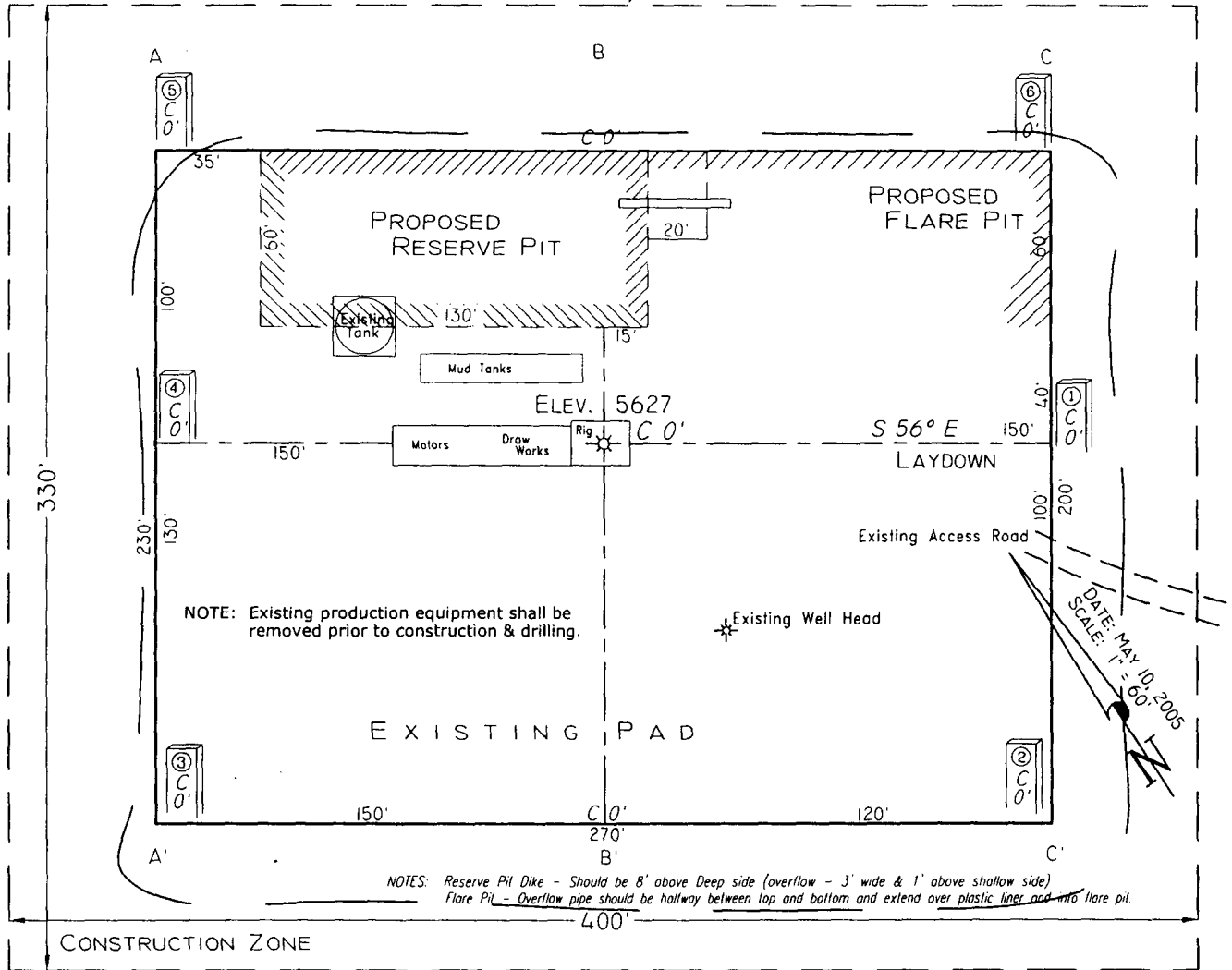
Signature and Seal of Professional Surveyor



7016
Certificate Number

PAD LAYOUT PLAN & PROFILE
 BP AMERICA PRODUCTION COMPANY
 Florance # 27S
 1670' F/SL 990' F/WL
 SEC. 26, T29N, R9W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36.6942°
 Long: 107.7556°
 Lat: 36°41'39"
 Long: 107°45'20"



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

5/12/2005

Lease:	Florance	Well Name & No.	Florance 27S	Field:	Basin Fruitland Coal
County:	San Juan, New Mexico	Surface Location:	SW 1/4, S26, T29N, R09W : 1670' FSL, 990' FWL		
Minerals:		Surface:	Lat: 36. Long:-107.		
Rig :	Aztec 507	BH Location:	SW 1/4, S26, T29N, R09W : 1670' FSL, 990' FWL		
OBJECTIVE:	Drill to TD, set 5.5" casing, perf and frac the Fruitland Coal interval.				

[illegible]

REMARKS:

Primary Log presentation is RST Coal interpretation (5"=100') with coal shaded. Carbon-oxygen/Inelastic Capture pass across Fruitland interval only. Two final prints and customer LAS file to Dennis Hilkewich in Houston - hilkewdn@bp.com.

SPECIAL TESTS		DRILL CUTTING SAMPLES			DRILLING TIME	
TYPE		FREQUENCY	DEPTH		FREQUENCY	DEPTH
None		none	none	to TD	Geologist	0 - TD

REMARKS:

MUD PROGRAM:					
Interval	TypeMud	#/gal	Vis, sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,172'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite

CASING PROGRAM:

CasingString	Depth	Size	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	12 1/4"	8-5/8"	IS 42 ST&C	20#		cmt to surface
Production	2,172'	7 7/8"	5-1/2"	J-55	15.5#		cmt to surface

CORING PROGRAM:

None

COMPLETION PROGRAM:

Rigless, Limited Entry Hydraulic Frac

GENERAL REMARKS:

Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

BOP Pressure Testing Requirements

Formation	Depth	Anticipated bottom hole pressure	Max anticipated surface pressure**												
Fruitland	1,841'	100 - 600	600												
Pictured Cliffs	2,072'	200	200												
Requested BOP Pressure Test Exception = 1500 psi															
Form 46 Reviewed by:		Logging program reviewed by:													
PREPARED BY:		APPROVED:		DATE:				APPROVED:				DATE:			
DNH/DDR	TT/HGJ			12-May-05											
Form 46 7-84bw		For Drilling Dept.						For Production Dept.							

Additional Operator Remarks
Florance 27S
APD

Notice of Staking was submitted on 05/27/05.

Please note the well is staked on an existing well pad.

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 2172' and complete into the Basin Fruitland Coal.

If terrain allows it is our intent to pre-set the 8 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.

SUPPLEMENTAL TO SURFACE USE PLAN

New Facilities:

A 4.5" diameter buried steel pipeline that is +/- 200 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 Field Services.

APD/ROW

Cementing Program

Well Name:	Florance 27S		
Location:	Sec 26 - 29N - 09W, 1670' FSL, 990' FWL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Fruitland Coal
		KB Elev (est)	5638
		GL Elev. (est)	5627

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)
Surface	200	12.5	8 5/8	8rd	Surface
Production -	2172	7.875	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
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
0 - SCP	Water/Spud	8.6-9.2	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	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

Surface:

Preflush	20 bbl.	Fresh Water	
Slurry 1	141 sx Class C Cement		179 cuft
TOC@Surface	+ 2% CaCl ₂ (accelerator)		
			0.4465 cuft/ft OH

Slurry Properties:

	Density (lb/gal)	Yield (ft ³ /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, as needed
 1 Stop Ring
 1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Lead	152 sx Class "G" Cement		397 cuft
Slurry 1	+ 3% D79 extender		
TOC@Surface	+ 2% S1 Calcium Chloride		
	+ 1/4 #/sk. Cellophane Flake		
	+ 0.1% D46 antifoam		

Cementing Program

Tail Slurry 2	500 ft fill	96 sx 50/50 Class "G"/Poz + 2% gel (extender) 0.1% D46 antifoam +1/4 #/sk. Cellophane Flake + 2% CaCl2 (accelerator)	121 cuft 0.1733 cuft/ft OH 0.2009 cuft/ft csg ann
Slurry Properties:	Density (lb/gal)	Yield (ft ³ /sk)	Water (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) Centralizers as needed 1 Top Rubber Plug 1 Thread Lock Compound		

SAN JUAN BASIN
Basin Fruitland Coal 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 single 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. No abnormal temperature, pressure, or H₂S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth 11" nominal or 7 1/16", 2000 psi Single ram preventer with 3000 psi annular preventer and rotating head.

All ram type and annular preventers as well as related control equipment will be hydraulically tested to 250 psi (low pressure) and 1500 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

