Form 3160-3
(August 1999)

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

FEB 2004

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. NM 013685
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. SCHWERDTFEGER B 3S
2. Name of Operator BP AMERICA PRODUCTION COMPANY Contact: CHERRY HLAVA E-Mail: hlavacl@bp.com	9. API Well No. 30 045 32124
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092 / 3b. Phone No. (include area code) Ph: 281.366.4081 Fx: 281.366.0700	10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface SWSE 895FSL 1910FEL 36.51900 N Lat, 107.45900 W Lon At proposed prod. zone	11. Sec., T., R., M., or Blk. and Survey or Area O Sec 27 T31N R9W Mer NMP
14. Distance in miles and direction from nearest town or post office* 22.5 MILES N/E FROM AZTEC, NM	12. County or Parish SAN JUAN / 13. State NM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 895' / 16. No. of Acres in Lease 771.18	17. Spacing Unit dedicated to this well 319.45 S/2
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 75' / 19. Proposed Depth 3110 MD	20. BLM/BIA Bond No. on file WY2924
21. Elevations (Show whether DF, KB, RT, GL, etc. 6129 GL / 22. Approximate date work will start 03/01/2004	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	Name (Printed/Typed)	Date
(Electronic Submission)	CHERRY HLAVA	01/08/2004

Title: REGULATORY ANALYST

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ David J. Mankiewicz		FEB 24 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 #26651 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

**** 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
30-045-32124	71629	Basin Fruitland Coal

4 Property Code	5 Property Name	6 Well Number
016426	Schwerdtfeger B	# 3S

7 OGRID No.	8 Operator Name	9 Elevation
000778	BP AMERICA PRODUCTION COMPANY	6129

10 Surface Location

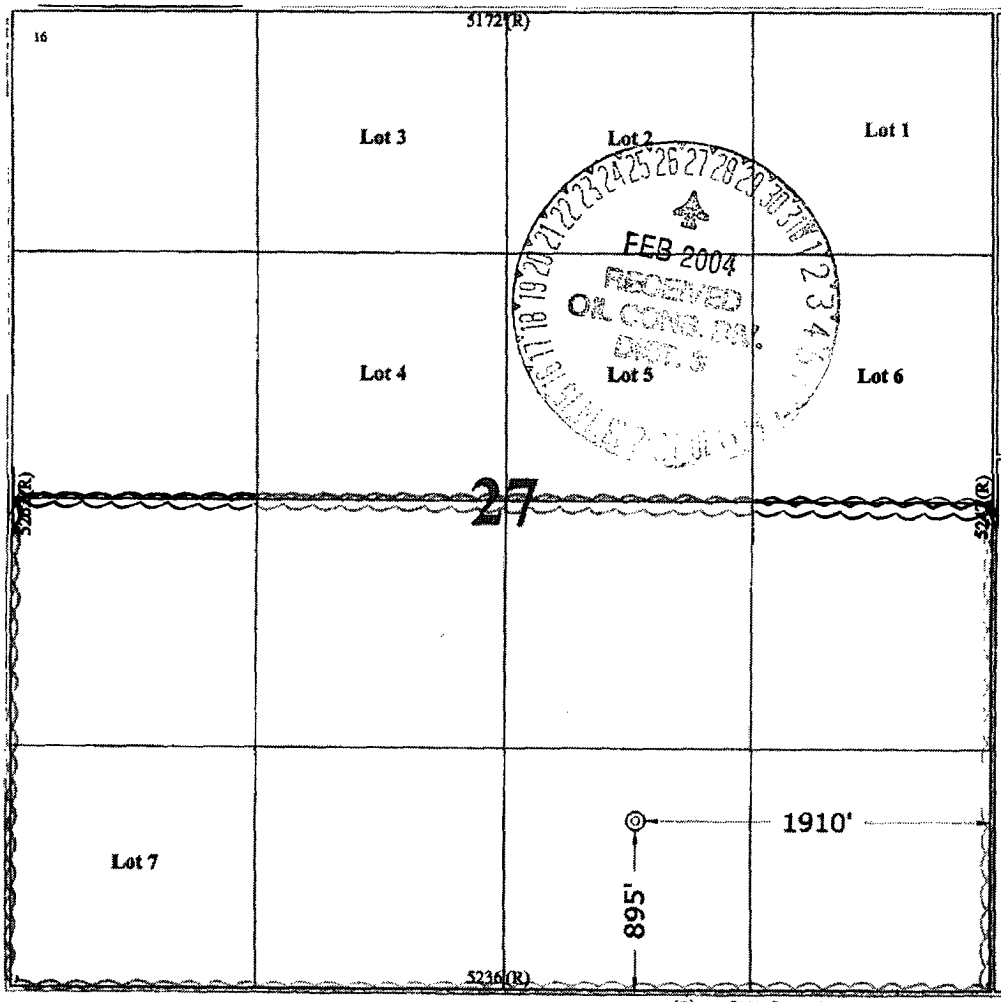
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	27	31 N	9 W		895	SOUTH	1910	EAST	SAN JUAN

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
319.45			

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.

Signature: Cherry Hlava

Printed Name: Cherry Hlava

Title: Regulatory Analyst

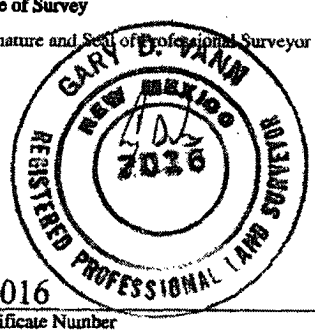
Date: 1-6-04

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.

September 25, 2003
Date of Survey

Signature and Seal of Professional Surveyor



7016
Certificate Number

(R) – BLM Record

BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM

Prospect Name: Schwerdtfeger B
Lease:
Well No: 3S
Surface Location: Section 27 O, T31N, R9W; 895' FSL, 1910' FEL
County: San Juan
State: New Mexico
Field: Basin Fruitland Coal
Date: December 15, 2003

OBJECTIVE: Drill to a TD of 3110' md, topset FT with 7" casing and air drill the Fruitland Coal interval, underream and set 5.5" liner.

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 – 3110' MD, 3123' KB

LOG PROGRAM

TYPE	DEPTH INVERAL
Mud log & gas chromatograph	2750 - TD

(see Remarks section below).

REMARKS:
At TD and prior to completion of the Fruitland coal interval, the operator will FAX or email a copy of the mud log covering the lower basal Fruitland coal seam and Pictured Cliffs Formation to the FFO-PMT geologist (Chip Harraden @ 505-599- 8997 or chip_harraden@nm.blm.gov) as well as the bp engineer (Dan Crosby @ 281-366-7099 or crosbyde@bp.com). Note: it is very important that the mud log include gas chromatograph results.

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER
Estimated GL: 6129 Estimated KB: 6142

MARKER		SUBSEA	MEAS. DEPTH
Ojo Alamo		4470	1672
Kirtland		4389	1753
Fruitland		3479	2663
Fruitland Coal	*#	3360	2782
Pictured Cliffs	*	3185	2957
TOTAL DEPTH		3032	3110

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE
None

REMARKS:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
none	none

DRILLING TIME

FREQUENCY	DEPTH
Geolograph	0-3110

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	- 2760	(1)	Water/LSND	8.6-9.2		<6	
2760	- 3110		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, 8 RND	32.3	12.5"	1
Intermediate	2760	7"	J-55, 8 RND	20.0	8.75"	1
Production Liner	2740 - 3110	5 ½"	J-55, 8 RND	15.5	11.0"	2

REMARKS:
(1) Circulate Cement to Surface
(2) under-ream hole from 6.25" to 11.0" before running 5 ½" liner.

CORING PROGRAM:
None

COMPLETION PROGRAM:
No frac, perforated liner completion. Run 2-3/8" reduced collar tubing to a depth of 3070' kb.

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:	
Daniel Crosby		1/5/2004	

Form 46 12-00 MNP

BP America Production Company
BOP Pressure Testing Requirements

Well Name: Schwerdtfeger B 3S
County: San Juan **State:** New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1672		
Kirtland	1753		
Fruitland Coal	2782	200	0
PC			
Lewis Shale			
Cliff House			
Menefee Shale			
Point Lookout			
Mancos			
Dakota			

** Note: Determined using the following formula: ABHP – (.22*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~~ 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.

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 ½" 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 impart a swirling action around the casing and 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.

Fruitland Coal HPA waiting period released 2-5-04

NEW MEXICO MULTIPOINT REQUIREMENTS

1. Existing Roads
   A. The proposed location is staked as shown on the Certified Plat.
   B. Route and distance from nearest town is identified on the form 3160-3, item #14.
   C. Access road(s) to location are identified on Exhibits A & B.
   D. Not applicable unless exploratory well.
   E. All existing roads within one-mile radius of the well site are shown on Exhibit B.
   F. Improvements and/or maintenance of existing roads may be done as deemed necessary for BP's operations, or as required by the surface management agency.

2. Access Roads
   A. Width: No New Road Construction
   B. Maximum Grades: 0
   C. Turnouts: None
   D. Drainage will be used as required
   E. Size and location of culverts, if needed. will be determined at the onsite inspection or during construction.
   F. Surfacing materials may be applied to the proposed road and/or location if the conditions merit it.
   G. Gates and/or cattle guards will be installed at fence crossings if deemed necessary by the land owner or the surface management agency.
   H. The proposed new access road is center-line flagged if applicable.

3. Location and Existing Wells
   A - H All existing wells, to the best of our knowledge, are identified on Exhibit C (9 Section Plat).

4. Location of Existing and/or Proposed Facilities
   A. All existing facilities owned or controlled by BP are shown on Exhibits D & E
   B. If this proposed well is productive, BP America Production Co. will own or have control of these facilities on location: storage tanks, well head production unit, and if applicable, a pump jack and/or compressor. Also there will be buried production lines from the wellhead to the production unit and/or storage tanks. BP America Production Co. will submit a Sundry Notice when off-pad plans are finalized.
   C. Rehabilitation, whether the well is productive or not, will be made on all unused areas in accordance with surface owner or manager approval.

5. Location and Type of Water supply