

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 - 080244
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. RIDDLE 1 B
3a. Address HOUSTON, TX 77253-3092	3b. Phone No. (include area code) Ph: 281.366.4081	9. API Well No. 30-045-32840
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNW 1110FNL 1010FWL 36.80111 N Lat, 107.79111 W Lon At proposed prod. zone NWNW 1110FNL 1010FWL 36.80111 N Lat, 107.79111 W Lon		10. Field and Pool, or Exploratory BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 11.5 MILES EAST FROM AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area D Sec 21 T30N R09W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1010	16. No. of Acres in Lease 320.00	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 5384 MD 5384 TVD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5971 GL	22. Approximate date work will start 03/02/2005	17. Spacing Unit dedicated to this well 320 N/2
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 7

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 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 Ph: 281.366.4081	Date 01/18/2005
Title AGENT		
Approved by (Signature) 	Name (Printed/Typed)	Date 2-11-05
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 #52975 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the FarmingtonDRILLING 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

API Number 30-045-32840	Pool Code 72319	Pool Name Blanco Mesaverde
Property Code 000971	Property Name Riddle	Well Number # 1B
OGRID No 000778	Operator Name BP AMERICA PRODUCTION COMPANY	Elevation 5971

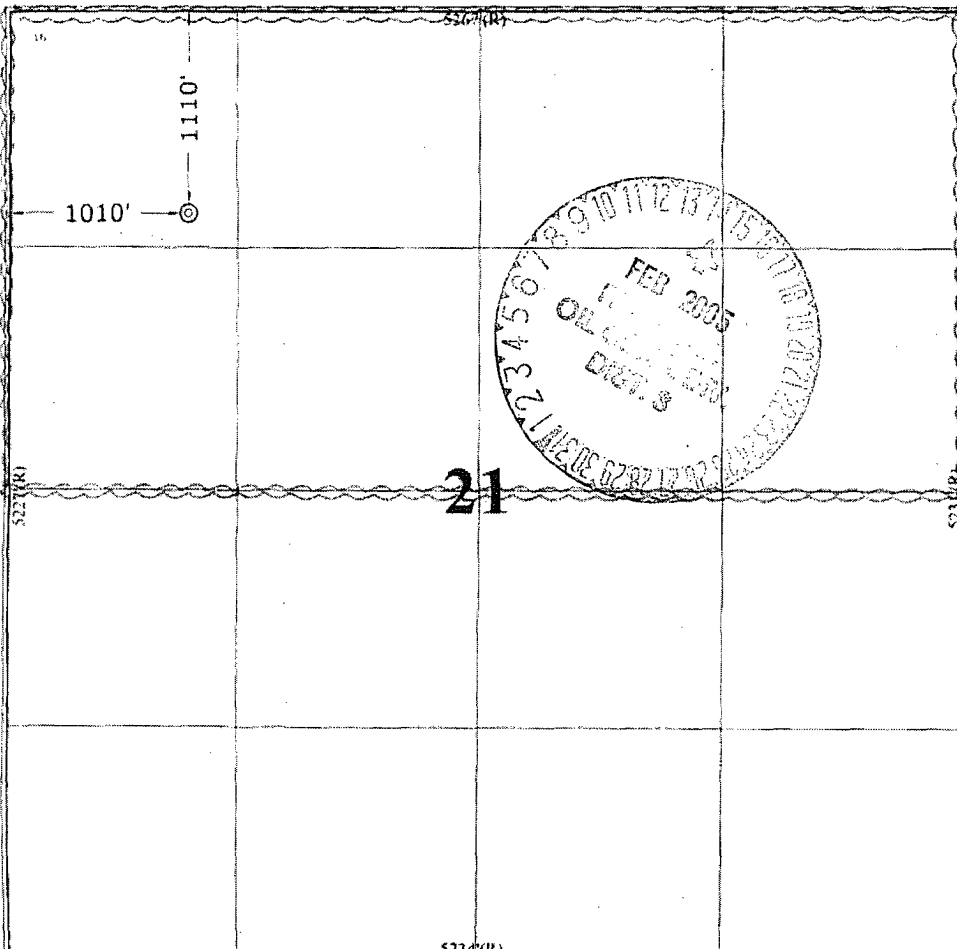
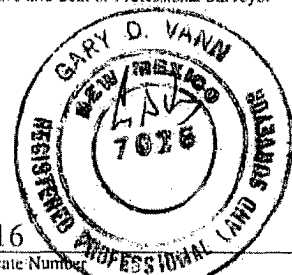
Surface Location

UL or Lot No. D	Section 21	Township 30 N	Range 9 W	Lot Idn	Feet from the 1110	North/South line NORTH	Feet from the 1010	East/West line WEST	County SAN JUAN
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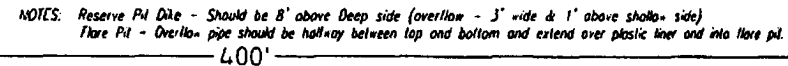
Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or infill	Consolidation Code	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. Signature <i>Cherry Hlava</i> Printed Name Cherry Hlava Title Regulatory Analyst Date 1-17-05
	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. Date of Survey November 9, 2004 Signature and Seal of Professional Surveyor  Certificate Number 7016

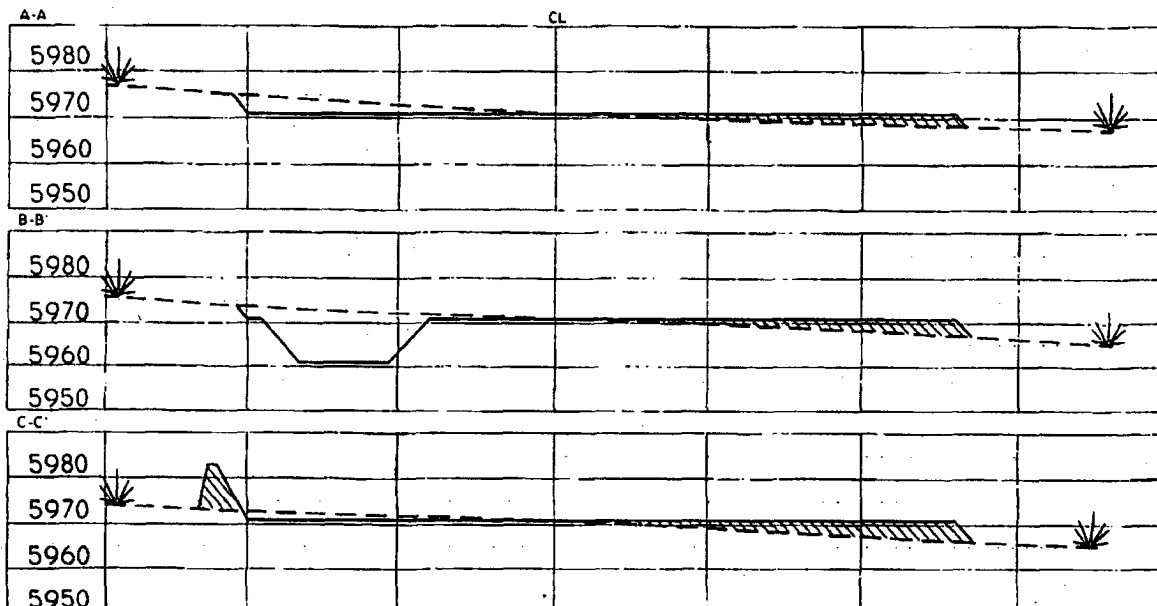
Lat: 36°48'04"
Long: 107°47'28"



CONSTRUCTION ZONE

Area of Construction Zone - 330'x400' or 3.03 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 earth-work will balance. Corner stakes are approximate and do not include additional areas needed for sidewalks and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS
P. O. Box 1306
Farmington, NM

Additional Operator Remarks
Riddle 1B
APD

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 5384' and complete into the Blanco Mesaverde.

If terrain allows 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.

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

BP AMERICA PRODUCTION COMPANY

DRILLING AND COMPLETION PROGRAM

1/10/2005

Lease:	Riddle	Well Name & No.	Riddle #1B	Field:	Blanco Mesaverde
County:	San Juan, New Mexico	Surface Location:	21-30N-9W : 1110' FNL, 1010' FWL		
Minerals:		Surface:	Lat: 36.7515792 Long:-107.6648652		
Rig :	Aztec 507	BH Location:	same		
OBJECTIVE:	Drill 450' below the top of the Point Lookout, set 4-1/2" production casing. Stimulate MF, and PL intervals.				

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL: 5971	Estimated KB: 5,982.0'		
Rotary	0 - TD	Marker	SUBSEA	TVD	APPROX. MD
LOG PROGRAM		Ojo Alamo	4,594'	1,388'	1,388'
Type	Depth Interval	Kirtland	4,441'	1,541'	1,541'
Single Run		Fruitland	* 3,912'	2,070'	2,070'
		Fruitland Coal	* 3,586'	2,396'	2,396'
		Pictured Cliffs	* 3,278'	2,704'	2,704'
		Lewis	* 3,045'	2,937'	2,937'
Cased Hole		Cliff House	# 1,776'	4,206'	4,206'
TDT- CBL	TD to 7" shoe.	Menefee	# 1,480'	4,502'	4,502'
	Identify 4 1/2" cement top	Point Lookout	# 1,048'	4,934'	4,934'
		Mancos	698'	5,284'	5,284'

REMARKS:

- Please report any flares (magnitude & duration).

		TOTAL DEPTH:	598'	5,384'	5,384'
		# Probable completion interval	# Possible Pay		

SPECIAL TESTS

TYPE	DRILL CUTTING SAMPLES		DRILLING TIME	
	FREQUENCY	DEPTH	FREQUENCY	DEPTH
	none	2,346' to TD	Geologist	0 - TD

REMARKS:

MUD PROGRAM:

Interval	Type <input type="checkbox"/> Mud	#/gal	Vis, <input type="checkbox"/> sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,346'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
5,384'	Air	1	1000 cfm for bit		Volume sufficient to maintain a stable and clean wellbore

CASING PROGRAM:

Casing <input type="checkbox"/> String	Depth	Size	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	13 1/2"	9-5/8"	H-40 ST&C	32#		cmt to surface
Intermediate 1	2,346'	8-3/4"	7"	J/K-55 ST&C	20#	50' above FT coal	cmt to surface
Production	5,384'	6-1/4"	4-1/2"	J-55	11.6#	DKOT	150' inside Intermediate - TOC survey required

CORING PROGRAM:

None

COMPLETION PROGRAM:

Rigless, 2-3 Stage Limited Entry Hydraulic Frac, FMC Unihead

GENERAL REMARKS:

Notify BLM/NMOCDD 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**
Cliffhouse	4,206'	500	0
Point Lookout	4,934'	600	0
Dakota	-	2600	-

Requested BOP Pressure Test Exception = 1500 psi

** Note: Determined using the following formula: ABHP - (.22*TVDD) = ASP

Form 46 Reviewed by:	Logging program reviewed by:	DATE:	APPROVED:	DATE:
HGJ	JMP	10-Jan-05		
Form 46 7-84bw	For Drilling Dept.		For Production Dept.	

Cementing Program

Well Name: Riddle 1B
 Location: 21-30N-9W : 1110' FNL, 1010' FWL
 County: San Juan
 State: New Mexico

Well Flac
 Formation: MesaVerde
 KB Elev (est) 5982
 GL Elev. (est) 5971

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)
Surface	200	13.5	9.625	ST&C	Surface	NA
Intermediate	2346	8.75	7	LT&C	Surface	NA
Production -	5384	6.25	4.5		2246	2561

Casing Properties:

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	2270	1400	254	0.0787	8.845
Intermediate		7	20 K-55	3740	2270	234	0.0405	6.456
Production -		4.5	10.5 J-55	4790	4010	132	0.0159	3.927

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
			PV <20
			YP <10
			Fluid Loss <15
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	

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

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	154 sx Class C Cement		195 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
			0.4887 cuft/ft OH
			100 % excess

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

Casing Equipment:

- 9-5/8", 8R, ST&C
- 1 Guide Shoe
- 1 Top Wooden Plug
- 1 Autofill insert float valve

Cementing Program

Centralizers, as needed
1 Stop Ring
1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		203 sx Class "G" Cement	530 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam'	
Tail		59 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	Yield	Water
	(lb/gal)	(ft3/sk)	(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, as needed
1 Top Rubber Plug
1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Slurry		183 LiteCrete D961 / D124 / D154	461 cuft
		+ 0.03 gps D47 antifoam	
		+ 0.5% D112 fluid loss	
TOC@Liner Top		+ 0.11% D65 TIC	

Slurry Properties:	Density	Yield	Water	0.1026 cuft/ft OH
	(lb/gal)	(ft3/sk)	(gal/sk)	40 % excess
Slurry	9.5	2.52	6.38	0.1169 cuft/ft csg ann

Casing Equipment: 4-1/2", 8R, ST&C

1 Float Shoe
1 Float Collar
1 Stop Ring
Centralizers, as needed
1 Top Rubber Plug

**SAN JUAN BASIN
Blanco Mesaverde
Pressure Control Equipment**

Background

The objective Mesaverde 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 Blanco Mesaverde. 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

