

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: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

2. Name of Operator: BP AMERICA PRODUCTION COMPANY  
Contact: CHERRY HLAVA  
E-Mail: HLAVACL@BP.COM

3a. Address  
HOUSTON, TX 77253-3092

3b. Phone No. (include area code)  
Ph: 281-366-4081

5. Lease Serial No.  
SF - 078096

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.  
MUDGE LS 7 N

9. API Well No.  
~~30-045-32769~~ 30-045-32769

10. Field and Pool, or Exploratory  
BASIN DK & BLANCO MV

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface NESW 1945FSL 1805FWL 36.88222 N Lat, 107.96333 W Lon  
At proposed prod. zone NESW 1945FSL 1805FWL 36.88222 N Lat, 107.96333 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area  
Sec 23 T31N R11W Mer NMP  
K

14. Distance in miles and direction from nearest town or post office\*  
5.5 MILES NORTH 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)  
1945

16. No. of Acres in Lease  
320.00

17. Spacing Unit dedicated to this well  
320.00 W2

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.  
600

19. Proposed Depth  
7048 MD  
7048 TVD

20. BLM/BIA Bond No. on file  
YW2924

21. Elevations (Show whether DF, KB, RT, GL, etc.)  
5780 GL

22. Approximate date work will start  
02/15/2004

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.
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 Ph: 281-366-4081

Date  
12/15/2004

Title  
AGENT

Approved by (Signature)

Name (Printed/Typed)

Date  
6-3-85

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 #51910 verified by the BLM Well Information System  
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

NMOCN

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

API Number <b>30-045-32769</b>		Pool Code <b>71599; 72319</b>		Pool Name <b>Basin Dakota; Blanco Mesaverde</b>	
Property Code <b>000 911</b>		Property Name <b>Mudge LS</b>			Well Number <b># 7N</b>
CORID No. <b>000 778</b>		Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>			Elevation <b>5780</b>

10 Surface Location

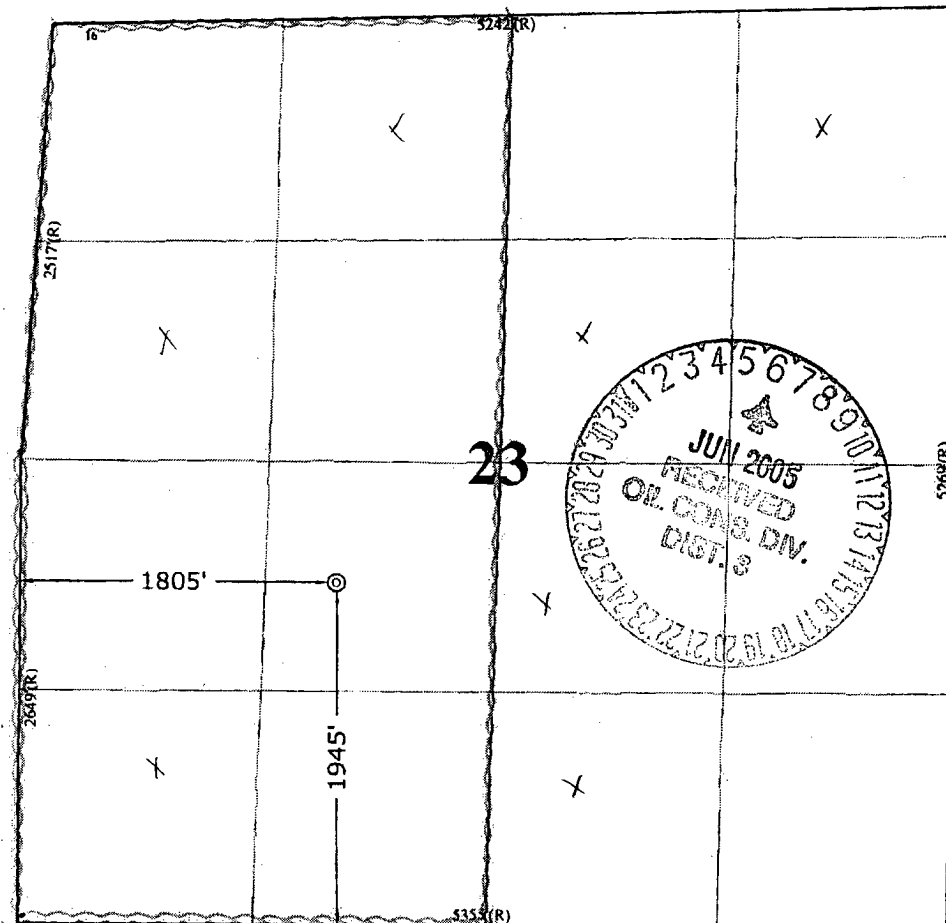
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>K</b>	<b>23</b>	<b>31 N</b>	<b>11 W</b>		<b>1945</b>	<b>SOUTH</b>	<b>1805</b>	<b>WEST</b>	<b>SAN JUAN</b>

11 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	Joint or Infill	Consolidation Code	Order No.
<b>320</b>			

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  
**12-14-04**  
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.

**September 7, 2004**  
Date of Survey

Signature and Seal of Professional Surveyor

**GARY D. VARN**  
**NEW MEXICO**  
**REGISTERED PROFESSIONAL LAND SURVEYOR**  
**7016**  
Certificate Number

(R) - BLM Record

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

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

Form C-103  
March 4, 2004

WELL API NO.

New Well

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Mudge LS  
(Federal well SF 078096)

8. Well Number

7 N

9. OGRID Number

000778

10. Pool name or Wildcat

Basin Dk & Blanco MV

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other ☐

2. Name of Operator

BP AMERICA PRODUCTION CO

3. Address of Operator

P.O. BOX 3092 HOUSTON, TX 77079-2064

4. Well Location

Unit Letter K : 1945 feet from the South line and 1805 feet from the West line

Section 23

Township 31N

Range 11W

NMPM SAN JUAN

County

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

5780' GR

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

Pit Location: UL K Sect 23 Twp 31N Rng 11W Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well <5000'

Distance from nearest surface water \*\* <100' Below-grade Tank Location UL G Sect 23 Twp 31N Rng 11W ;

1495' feet from the South line and 1820 feet from the WEST line \*\*This well is in the drainage leading to the Animas River

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: LINED DRILLING PIT PERMIT ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

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. Drilling 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 \_\_\_\_\_ TITLE Regulatory Analyst DATE 12/14/04

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

(This space for State use)

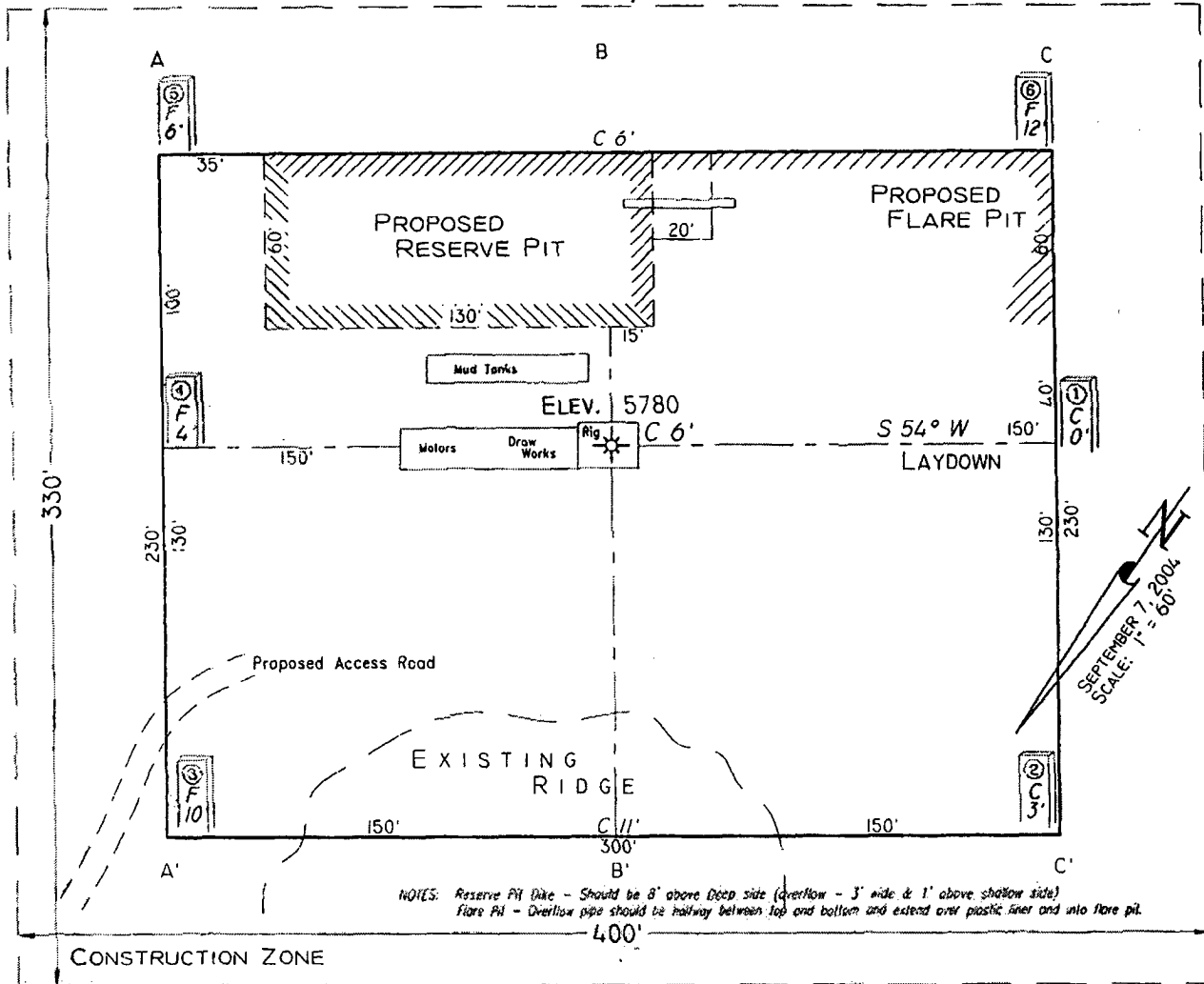
APPROVED BY [Signature] TITLE Oil & Gas Inspector, Dist. 2E  
Conditions of approval, if any: \_\_\_\_\_

JUN - 6 2005  
DATE

**PAD LAYOUT PLAN & PROFILE**  
**BP AMERICA PRODUCTION COMPANY**  
 Mudge LS #7N  
 1945' F/SL 1805' F/WL  
 SEC. 23, T31N, R11W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

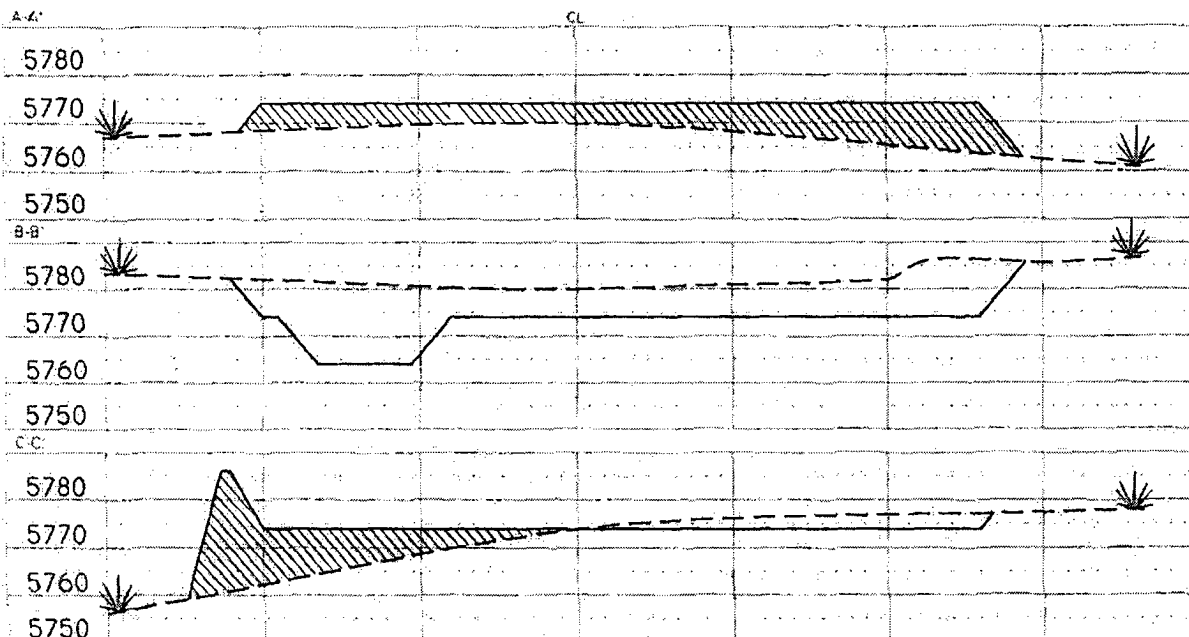
Lat = 36.88222  
 Long = 107.96333

Lat: 36°52'56"  
 Long: 107°57'48"



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 of 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.

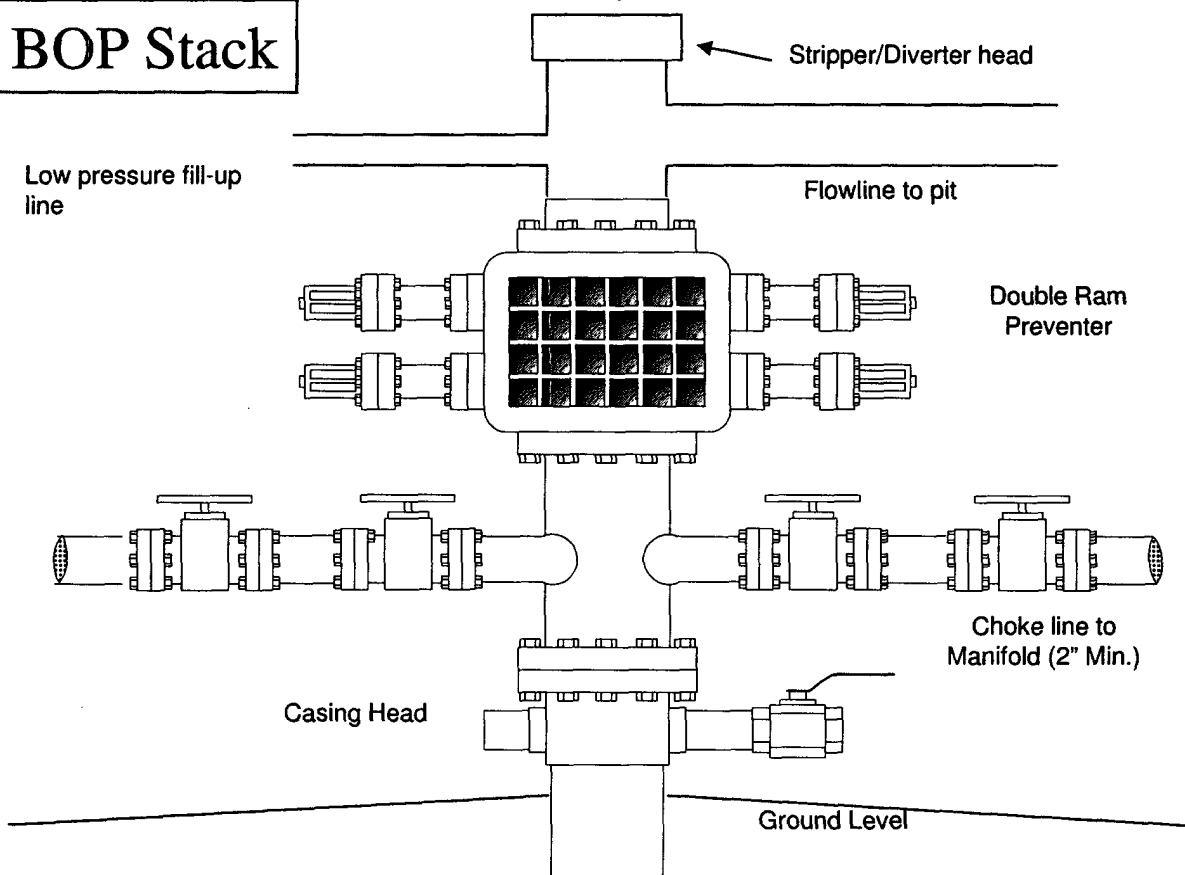
VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

BP AMERICA PRODUCTION COMPANY													
DRILLING AND COMPLETION PROGRAM													
10/8/2004													
<b>Lease:</b>	Mudge LS	<b>Well Name &amp; No.</b>	Mudge LS #7N	<b>Field:</b>	Blanco Mesaverde/Basin Dakota								
<b>County:</b>	San Juan, New Mexico	<b>Surface Location:</b>	23-31N-11W:1945' FSL, 1805' FWL										
<b>Minerals:</b>	BLM	<b>Surface:</b>	Lat: 36.8821264 Long:-107.9625055										
<b>Rig :</b>	Aztec 184	<b>BH Location:</b>	same										
<b>OBJECTIVE:</b>	Drill 250' below the top of the Two Wells Mbr, set 4-1/2" production casing, Stimulate DK, MF, and PL intervals.												
<b>METHOD OF DRILLING</b>				<b>APPROXIMATE DEPTHS OF GEOLOGICAL MARKER</b>									
<b>TYPE OF TOOLS</b>		<b>DEPTH OF DRILLING</b>		<b>Actual GL:</b> 5780		<b>Estimated KB:</b> 5,794.0'							
Rotary		0 - TD		<b>Marker</b>		<b>SUBSEA</b>	<b>TVD</b>	<b>APPROX. MD</b>					
<b>LOG PROGRAM</b>				Ojo Alamo		4,558'	1,236'	1,236'					
<b>Type</b>	<b>Depth Interval</b>			Kirtland		4,519'	1,275'	1,275'					
Single Run				Fruitland	*	3,947'	1,847'	1,847'					
				Fruitland Coal	*	3,713'	2,081'	2,081'					
				Pictured Cliffs	*	3,357'	2,437'	2,437'					
				Lewis	*	3,158'	2,636'	2,636'					
Cased Hole				Cliff House	#	1,886'	3,908'	3,908'					
TDT- CBL	TD to 7" shoe			Menefee	#	1,558'	4,236'	4,236'					
	Identify 4 1/2" cement top			Point Lookout	#	1,146'	4,648'	4,648'					
<b>REMARKS:</b>				Mancos		754'	5,040'	5,040'					
- Please report any flares (magnitude & duration).				Greenhorn		-895'	6,689'	6,689'					
				Graneros (bent,mkr)		-946'	6,740'	6,740'					
				Two Wells	#	-1,004'	6,798'	6,798'					
				Paguate	#	-1,082'	6,876'	6,876'					
				Cubero	#	-1,119'	6,913'	6,913'					
				L. Cubero	#	-1,164'	6,958'	6,958'					
				Encinal Cyn	#	-1,215'	7,009'	7,009'					
				<b>TOTAL DEPTH:</b>		-1,259'	7,048'	7,048'					
				# Probable completion interval						* Possible Pay			
				<b>SPECIAL TESTS</b>				<b>DRILL CUTTING SAMPLES</b>			<b>DRILLING TIME</b>		
<b>TYPE</b>				<b>FREQUENCY</b>		<b>DEPTH</b>		<b>FREQUENCY</b>		<b>DEPTH</b>			
None				30'/10' intervals		2,736' to TD		Geolograph		0 - TD			
<b>REMARKS:</b>													
<b>MUD PROGRAM:</b>													
<b>Interval</b>	<b>Type</b> <input type="checkbox"/> Mud	<b>#/gal</b>	<b>Vis, <input type="checkbox"/> sec/qt</b>	<b>/30 min</b>	<b>Other Specification</b>								
200'	Spud	8.8 - 9.0	Sufficient to clean hole.										
2,736'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite								
7,048'	Air	1	1000 cfm for hammer		Volume sufficient to maintain a stable and clean wellbore								
<b>CASING PROGRAM:</b>													
<b>Casing</b> <input type="checkbox"/> String	<b>Depth</b>	<b>Size</b>	<b>Casing Size</b>	<b>Grade, Thread</b>	<b>Weight</b>	<b>Landing Point</b>	<b>Cement</b>						
Surface/Conductor	200'	13 1/2"	9-5/8"	H-40 ST&C	32#		cmt to surface						
Intermediate 1	2,736'	8-3/4"	7"	J/K-55 ST&C	20#	100' below LWIS	cmt to surface						
Production	7,048'	6-1/4"	4-1/2"	J-55	11.6#	DKOT	150' inside Intermediate - TOC survey required						
<b>CORING PROGRAM:</b>													
None													
<b>COMPLETION PROGRAM:</b>													
Rigless, 2-3 Stage Limited Entry Hydraulic Frac, FMC Unihead													
<b>GENERAL REMARKS:</b>													
Notify BLM/NMOCDD 24 hours prior to Spud, BOP testing, and Casing and Cementing.													
<b>BOP Pressure Testing Requirements</b>													
<b>Formation</b>	<b>Depth</b>	<b>Anticipated bottom hole pressure</b>				<b>Max anticipated surface pressure**</b>							
Cliffhouse	3,908'	500				0							
Point Lookout	4,648'	600				0							
Dakota	6,798'	2600				1104.44							
Requested BOP Pressure Test Exception = 1500 psi				** Note: Determined using the following formula: ABHP - (.22*TVD) = ASP									
Form 46 Reviewed by:		Logging program reviewed by:											
<b>PREPARED BY:</b>		<b>APPROVED:</b>		<b>DATE:</b>		<b>APPROVED:</b>		<b>DATE:</b>					
HGJ	JMP			8-Oct-04									
Form 46 7-84bw		For Drilling Dept.		For Production Dept.									

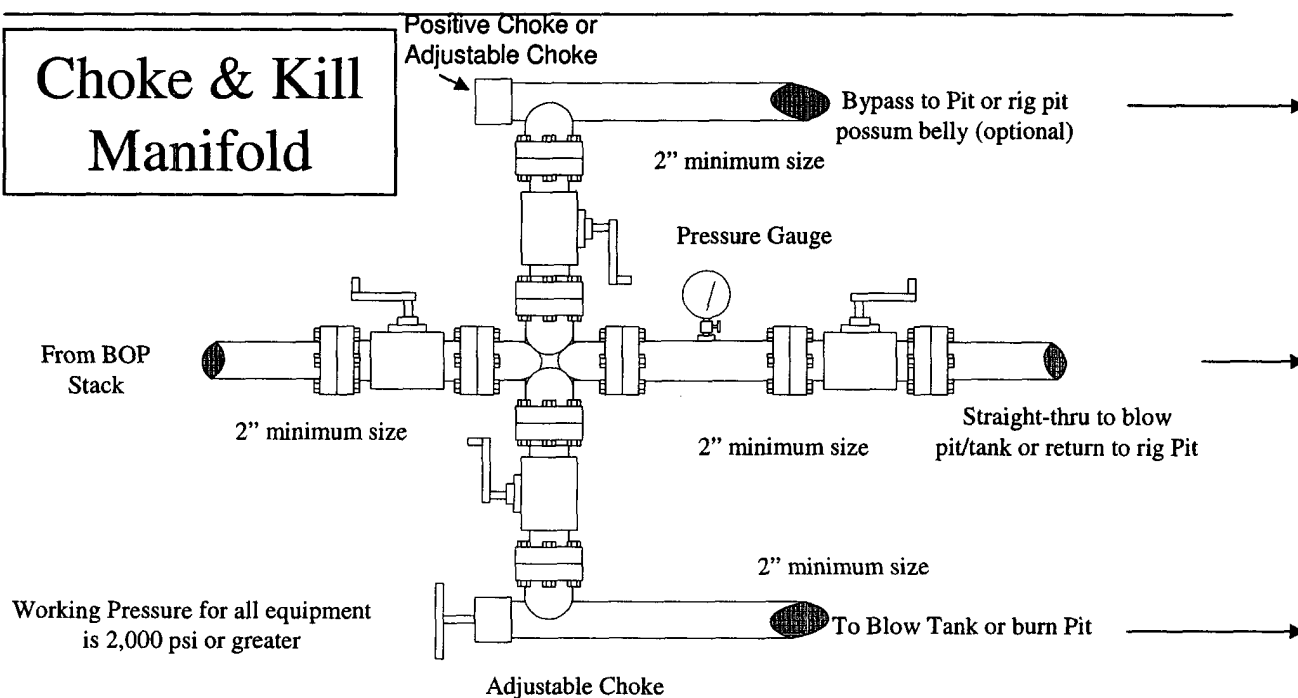
**BP America Production Company**  
Well Control Equipment Schematic



**BOP Stack**



**Choke & Kill Manifold**



Additional Operator Remarks  
Mudge LS 7N  
APD

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 7048'. Complete in the Basin Dakota Pool, isolate the Dakota; complete into the Blanco Mesaverde, establish a production rate; drill out the bridge plug and commingle production downhole.

Application for Downhole Commingling authority (NMOCD order R-11363) will be submitted to all appropriate for approval after Permit to Drill has been approved.

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 +/- 300 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

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

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**Background**

The objective Dakota 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.