Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMSF078040

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
MUDGE A 11M

2. Name of Operator
BP AMERICA PRODUCTION CO
Contact: MARY CORLEY
E-Mail: corleyml@bp.com

9. API Well No.
30-045-31378-00-X1

3a. Address
P. O. BOX 3092
HOUSTON, TX 77253

3b. Phone No. (include area code)
Ph: 281.366.4491
Fx: 281.366.0700

10. Field and Pool, or Exploratory
BASIN DAKOTA
BLANCO MESAVERDE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 10 T31N R11W SENW Lot F 1780FNL 1715FWL
36.54900 N Lat, 107.58900 W Lon

11. County or Parish, and State
SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Notice of staking submitted on 01/22/2003.
APD Submitted on 02/06/2003 and approved on 03/04/2003.

BP request a change in the intermediate casing setting depth from 3163' to 3063'. For your reference attached is an amended Form 46 and Cementing Report to reflect this change.

MAR 2003

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #19868 verified by the BLM Well Information System
For BP AMERICA PRODUCTION CO, sent to the Farmington
Committed to AFMSS for processing by Adrienne Garcia on 03/24/2003 (03AXG0887SE)

Name *(Printed/Typed)* MARY CORLEY — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 03/24/2003

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Jim Lovato — Title — Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

MAR 25 2003

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

NMOCD

BP AMERICA PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM

Prospect Name: Mudge A
Lease: MUDGE A
County: San Juan
State: New Mexico
Date: January 27, 2003

Well No: 11M
Surface Location: 10-31N-11W, 1780 FNL, 1715FWL
Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 70' below the base of the Lower Cubero, set 41/2" production casing, Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOG PROGRAM

TYPE	DEPTH INVERAL
OPEN HOLE	
none	
CASED HOLE	
GR-CCL-TDT	TDT – TD to 7" shoe
CBL	Identify 4 ½" cement top

REMARKS:
- Please report any flares (magnitude & duration).

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Estimated GL: 6118 Estimated KB: 6132

MARKER		SUBSEA	TVD.
Ojo Alamo		4419'	1713'
Kirkland		4271'	1861'
Fruitland		4017'	2115'
Fruitland Coal	*	3762'	2370'
Pictured Cliffs	*	3331'	2801'
Lewis Shale	#	3167'	2963'
Cliff House	#	1817'	4315'
Menefee Shale	#	1507'	4625'
Point Lookout	#	1073'	5059'
Mancos		760'	5372'
Greenhorn		-971'	7103'
Bentonite Marker		-1018'	7150'
Two Wells	#	-1078'	7210'
Paguate	#	-1162'	7294'
Cubero Upper	*	-1187'	7319'
Cubero Lower	*	-1205'	7337'
TOTAL DEPTH		-1275'	7407'

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE
None

REMARKS:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
none	Production hole

DRILLING TIME

FREQUENCY	DEPTH
Geolograph	0-TD

MUD PROGRAM:

Approx. Interval			Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0	- 200		Spud	8.6-9.2			
200	- 3063	(1)	Water/LSND	8.6-9.2		<6	
3163	- 7407		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	200	9 5/8"	H-40 ST&C	32#	12.25"	1
Intermediate 1	3063	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7407	4 1/2"	J-55	11.6#	6.25"	3

REMARKS:
(1) Circulate Cement to Surface
(2) Set casing 100' into Lewis Shale
(3) Bring cement 100' above 7" shoe

CORING PROGRAM:
None

COMPLETION PROGRAM:
Rigless, 3-4 Stage Limited Entry Hydraulic Frac

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:	
HGJ/MNP/JMP		March 24, 2003 Version 2.0	

Form 46 12-00 MNP

BP America Production Company
BOP Pressure Testing Requirements

Well Name: **Mudge A** **11M**
County: **San Juan** **State:** **New Mexico**

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1713		
Fruitland Coal	2370		
PC	2801		
Lewis Shale	2963		
Cliff House	4315	500	0
Menefee Shale	4625		
Point Lookout	5059	600	0
Mancos	5372		
Dakota	7210	2600	1449

** Note: Determined using the following formula: ABHP – (.22*TVD) = ASP

Requested BOP Pressure Test Exception: 1500 psi

Cementing Program

Well Name:	Mudge A11M	Field:	Blanco Mesaverde / Basin Dakota
Location:	10-31N-11W, 1780 FNL, 1715 FWL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Dakota MesaVerde
		KB Elev (est)	6132
		GL Elev. (est)	6118

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	200	12.25	9.625	ST&C	Surface	NA	
Intermediate	3063	8.75	7	LT&C	Surface	NA	
Production -	7407	6.25	4.5	?	2963	NA	

Casing Properties: (No Safety Factor Included)

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	3370	1400	254	0.0787	8.845
Intermediate	7	20	K-55	3740	2270	234	0.0405	6.456
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
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

Recommended Mud Properties Prio Cementing:

PV	<20
YP	<10
Fluid Loss	<15

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	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 minmize drillout.

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	110 sx Class G Cement		125 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.3132 cuft/ft OH
	0.1% D46 antifoam		

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.8	1.16	4.95

Casing Equipment:

9-5/8", 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

Cementing Program

Intermediate:

	Fresh Water	20 bbl	fresh water	
	Lead	260 sx	Class "G" Cement	656 cuft
	Slurry 1		+ 3% D79 extender	
	TOC@Surface		+ 2% S1 Calcium Chloride	
			+1/4 #/sk. Cellophane Flake	
			+ 0.1% D46 antifoam'	
	Tail	60 sx	50/50 Class "G"/Poz	75 cuft
	Slurry 2		+ 2% gel (extender)	
	500 ft fill		0.1% D46 antifoam	0.1503 cuft/ft OH
			+1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
			+ 2% CaCl2 (accelerator)	

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.61	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment: 7", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)
1 Float Collar (autofill with minimal LCM in mud)
1 Stop Ring
14 Centralizers (one in middle of first joint, then every third collar)
2 Fluidmaster vane centalizers @ base of Ojo
1 Top Rubber Plug
1 Thread Lock Compound

Production:

	Fresh Water	10 bbl	CW100	
	Lead	170	LiteCrete D961 / D124 / D154	403 cuft
	Slurry 1		+ 0.03 gps D47 antifoam	
	TOC, 100' above 7" shoe		+ 0.5% D112 fluid loss	
			+ 0.11% D65 TIC	
	Tail	160 sx	50/50 Class "G"/Poz	220 cuft
	Slurry 2		+ 5% D20 gel (extender)	+ 5 #/sk D24 gilsonite
	1535 ft fill		+ 0.1% D46 antifoam	+ 0.15% D65 TIC
			+ 1/4 #/sk. Cellophane Flake	+ 0.1% D800 retarder
			+ 0.25% D167 Fluid Loss	
				0.1026 cuft/ft OH
				0.1169 cuft/ft csg ann

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
Slurry 1	9.5	2.52	6.38	
Slurry 2	13	1.44	6.5	Top of Mancos 5372

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

1 Float Shoe (autofill with minimal LCM in mud)
1 Float Collar (autofill with minimal LCM in mud)
1 Stop Ring
Centralizers, every 4th joint in mud drilled holes, none in air drilled holes.
1 Top Rubber Plug
1 Thread Lock Compound