

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.*

5. Lease Serial No.

**NMSF 078138A**

6. If Indian, Allottee or tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well



Oil Well



Gas Well



Other

2. Name of Operator

**BP AMERICA PRODUCTION COMPANY**

3a. Address

**PO BOX 3092 HOUSTON, TX 77253**

3b. Phone No. (include area code)

**281-366-4081**

8. Well Name and No.

**STOREY B 1M**

9. API Well No.

**30-045-32324**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**720' FSL & 1735' FEL; SEC 11 T30N R11W SWSE Mer NMP**

10. Field and Pool, or Exploratory Area

**BASIN DAKOTA & BLANCO MESAVERDE**

11. County or Parish, State

**SAN JUAN, NM**

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

**TYPE OF SUBMISSION**



Notice of Intent



Subsequent Report



Final Abandonment Notice



Acidize



Alter Casing



Casing Repair



Change Plans



Convert to Injection



Deepen



Fracture Treat



New Construction



Plug and Abandon



Plug Back

**TYPE OF ACTION**



Production (Start/Resume)



Reclamation



Recomplete



Water Disposal



Water shut-Off



Well Integrity



Other Chng Csg Depths

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.

**Request to change well bore from directional to vertical was approved 5/31/05**

**BP respectfully requests BLM approval to change casing depths and cement program due to well being on the edge of the Cliffhouse waterline. (Offset wells have set intermediate pipe through the Mesaverde formation) Please see the attached drilling program and cement report.**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/typed)

**Cherry Hlava**

**281-366-4081**

Title **Regulatory Analyst**

Signature

*Cherry Hlava*

Date **06/23/2005**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*Adrian Brumley*

Title

*Per. Eng*

Date

*6/30/05*

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

*FFO*

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.

**NMOCD**

# BP AMERICA PRODUCTION COMPANY

## DRILLING AND COMPLETION PROGRAM

5/24/2005 Revision 6/22/05

|           |                      |                   |   |        |                               |
|-----------|----------------------|-------------------|---|--------|-------------------------------|
| Lease:    | Storey B             | Well Name & No.   | Storey B #1M                                | Field: | Blanco Mesaverde/Basin Dakota |
| County:   | San Juan, New Mexico | Surface Location: | 11-30N-11W: 720' FSL, 1735' FEL             |        |                               |
| Minerals: | State                | Surface:          | Lat: 36.8211600 deg; Long: -107.9569823 deg |        |                               |
| Rig :     | Aztec 184            | BH Location:      | same  |        |                               |

**OBJECTIVE:** Drill 270' below the top of the Two Wells Mbr, set 4-1/2" production casing, Stimulate DK, MF, and PL intervals.

| METHOD OF DRILLING |                            | APPROXIMATE DEPTHS OF GEOLOGICAL MARKER |      |                        |            |
|--------------------|----------------------------|---|------|------------------------|------------|
| TYPE OF TOOLS      | DEPTH OF DRILLING          | Actual GL:                              | 5827 | Estimated KB: 5,841.0' |            |
| Rotary             | 0 - TD                     | Marker                                  |      | SUBSEA                 | TVD        |
| LOG PROGRAM        |                            |   |      |                        | APPROX. MD |
| Type               | Depth Interval             | Ojo Alamo                               |      | 4,892'                 | 949'       |
| Single Run         |                            | Kirtland                                |      | 4,826'                 | 1,015'     |
|                    |                            | Fruitland                               | *    | 4,097'                 | 1,744'     |
|                    |                            | Fruitland Coal                          | *    | 3,813'                 | 2,028'     |
|                    |                            | Pictured Cliffs                         | *    | 3,503'                 | 2,338'     |
|                    |                            | Lewis                                   | *    | 3,269'                 | 2,572'     |
| Cased Hole         | TD to 7" shoe              | Cliff House                             | #    | 1,953'                 | 3,888'     |
| TDT- CBL           |                            | Menefee                                 | #    | 1,711'                 | 4,130'     |
|                    | Identify 4 1/2" cement top | Point Lookout                           | #    | 1,214'                 | 4,627'     |

### REMARKS:

- Please report any flares (magnitude & duration).

|                                |   |         |                |        |
|--------------------------------|---|---------|----------------|--------|
| Mancos                         |   | 877'    | 4,964'         | 4,964' |
| Greenhorn                      |   | -792'   | 6,633'         | 6,633' |
| Graneros (bent,mkr)            |   | -845'   | 6,686'         | 6,686' |
| Two Wells                      | # | -899'   | 6,740'         | 6,740' |
| Paguete                        | # | -975'   | 6,816'         | 6,816' |
| Cubero                         | # | -1,024' | 6,865'         | 6,865' |
| L. Cubero                      | # | -1,079' | 6,920'         | 6,920' |
| Encinal Cyn                    | # | -1,127' | 6,968'         | 6,968' |
| TOTAL DEPTH:                   |   | -1,269' | 7,110'         | 7,110' |
| # Probable completion interval |   |         | * Possible Pay |        |

### SPECIAL TESTS

| TYPE | DRILL CUTTING SAMPLES |              | DRILLING TIME |        |
|------|-----------------------|--------------|---------------|--------|
|      | FREQUENCY             | DEPTH        | FREQUENCY     | DEPTH  |
| None | 30'/10' intervals     | 2,672' to TD | Geograph      | 0 - TD |

### REMARKS:

### MUD PROGRAM:

| Interval | TypeMud    | #/gal     | Vis, sec/qt               | /30 min | Other Specification                                       |
|----------|------------|-----------|---------------------------|---------|---|
| 320'     | Spud       | 8.8 - 9.0 | Sufficient to clean hole. |         |   |
| 5,064'   | Water/LSND | 8.4 - 9.0 |                           | <9      | Sweep hole while whilst water drilling, LCM onsite        |
| 7,110'   | Air        | 1         | 1000 cfm for hammer       |         | Volume sufficient to maintain a stable and clean wellbore |

### CASING PROGRAM:

| CasingString      | Depth  | Size    | Casing Size | Grade, Thread | Weight | Landing Point  | Cement   |
|-------------------|--------|---------|-------------|---------------|--------|----------------|--|
| Surface/Conductor | 320'   | 13 1/2" | 9-5/8"      | H-40 ST&C     | 32#    |                | cmt to surface                                 |
| Intermediate 1a   | 4,000' | 8-3/4"  | 7"          | J/K-55 ST&C   | 20#    |                |  |
| Intermediate 1b   | 1,064' | 8-3/4"  | 7"          | J/K-55 ST&C   | 23#    | 100' below MCS | cmt to surface                                 |
| Production        | 7,110' | 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    | 3,888' | 500                              | 0                                  |
| Point Lookout | 4,627' | 600                              | 0                                  |
| Dakota        | 6,740' | 2600                             | 1117.2                             |

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: |                             |                      |       |
| PREPARED BY:         | APPROVED:                    | DATE:                       | APPROVED:            | DATE: |
| HGJ                  | JMP                          | 5/24/2005 Revision > 6/22/0 |                      |       |
| Form 46 7-84bw       | For Drilling Dept.           |                             | For Production Dept. |       |

# Cementing Program

## Revision 6/23/05

Well Name: Storey B1M  
 Location: 11-30N-11W, 720 FSL, 1735 FEL  
 County: San Juan  
 State: New Mexico

Field: Blanco Mesaverde / Basin Dakota  
 API No.  
 Well Flac  
 Formation: Dakota MesaVerde  
 KB Elev (est) 5841  
 GL Elev. (est) 5827

### 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       | 320              | 13.5            | 9.625             | ST&C   | Surface   | NA                      |                     |
| Intermediate  | 5064             | 8.75            | 7                 | ST&C   | Surface   | NA                      |                     |
| Production -  | 7110             | 6.25            | 4.5               | ?      | 4964      | 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  | 9970         | 1400            | 254                   | 0.0787             | 8.845       |
| Intermediate  | 7          | 20             | K-55  | 3740         | 2270            | 254                   | 0.0405             | 6.456       |
| Production -  | 4.5        | 11.6           | J-55  | 5350         | 4960            | 154                   | 0.0155             | 3.875       |

*see drilling program for tapered intermediate casing*

### Mud Program

| Apx. Interval (ft.) | Mud Type     | Mud Weight | Recommended Mud Properties Prio Cementing: |
|---------------------|--------------|------------|--|
|                     |              |            | PV <20<br>YP <10<br>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     | 75           | N/A        |
| 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 minimize drillout.

### Surface:

Preflush 20 bbl. FreshWater

|             |     |                          |
|-------------|-----|--------------------------|
| Slurry 1    | 170 | sx Class G Cement        |
| TOC@Surface |     | + 3% CaCl2 (accelerator) |

200 cuft

0.3132 cuft/ft OH

### Slurry Properties:

|          | Density (lb/gal) | Yield (ft3/sk) | Water (gal/sk) |
|----------|------------------|----------------|----------------|
| Slurry 1 | 15.8             | 1.18           | 4.98           |

Casing Equipment: 9-5/8", 8R, ST&C

# Cementing Program

- 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

## Intermediate:

|             |        |                                  |                        |
|-------------|--------|----------------------------------|------------------------|
| Fresh Water | 20 bbl | fresh water                      |                        |
| Lead        |        | 470 LiteCrete D961 / D124 / D154 | 1172 cuft              |
| Slurry 1    |        | + 0.03 gps D47 antifoam          |                        |
| TOC@Surface |        | + 0.5% D112 fluid loss           |                        |
|             |        | + 0.11% D65 TIC                  |                        |
|             |        | + 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<br>(lb/gal) | Yield<br>(ft <sup>3</sup> /sk) | Water<br>(gal/sk) |
|----------|---------------------|--------------------------------|-------------------|
| Slurry 1 | 9.5                 | 2.52                           | 6.38              |
| 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 centralizers @ base of Ojo
- 1 Top Rubber Plug
- 1 Thread Lock Compound

## Production:

|                         |                     |                                |                        |
|-------------------------|---------------------|--------------------------------|------------------------|
| Fresh Water             | 10 bbl              | CW100                          |                        |
| Lead                    | N/A                 |                                | cuft                   |
| Slurry 1                |                     |                                |                        |
| TOC, 100' above 7" shoe |                     |                                |                        |
| Tail                    |                     | 216 sx 50/50 Class "G"/Poz     | 311 cuft               |
| Slurry 2                |                     | + 5% D20 gel (extender)        | + 5 #/sk D24 gilsonite |
| 1646 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      |
| Slurry Properties:      | Density<br>(lb/gal) | Yield<br>(ft <sup>3</sup> /sk) | Water<br>(gal/sk)      |
| Slurry 1                | 0                   | 0                              | 0                      |
| Slurry 2                | 13                  | 1.44                           | 6.5                    |
|                         |                     |                                | Top of Mancos<br>4964  |

## 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

## **Cementing Program**

Centralizers, every 4th joint in mud drilled holes, none in air drilled holes.

1 Top Rubber Plug

1 Thread Lock Compound