

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.*

2007 MAR - 5

5. Lease Serial No.

NMSF 080917

6. Indian, Native or tribe Name

7. 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

8. Well Name and No.

ATLANTIC B LS 4M

2. Name of Operator

BP America Production Company Attn: Cherry Hlava

9. API Well No.

30-045-32826

3a. Address

P.O. Box 3092 Houston, TX 77253

3b. Phone No. (include area code)

281-366-4081

10. Field and Pool, or Exploratory Area

Basin Dakota/Blanco Mesaverde

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

930 FSL & 2470' FWL Sec. 5 T30N, R10W SESW

11. County or Parish, State

San Juan County, New Mexico

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

TYPE OF ACTION

☐ Acidize

☐ Deepen

☐ Production (Start/Resume)

☐ Water shut-Off

☐ Alter Casing

☐ Fracture Treat

☐ Reclamation

☐ Well Integrity

☐

☐ New Construction

☐

☐ Recomplete

Other ☒ Cement  
Remediation & MV  
Completion

☐ Casing Repair

☐

☐

☐ Change Plans

☐ Plug and Abandon

☐

☐ Water Disposal

☐ Convert to Injection

☐ Plug Back

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 recomplate 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 recomplate 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.

On 12/14/06 Jim Lovato gave permission to postpone cement remediation for the above mentioned well until 07/01/07.

Please see the attached cement remediation procedure which addresses the plan to remove the upper portion of 4 1/2" casing in order to do a remedial cement job on the 7".

If you have any questions please call Jesse Gracia @281-366-1946

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations.

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

Cherry Hlava

Title Regulatory Analyst

Signature

*Cherry Hlava*

Date 02/28/2007

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*Jim Lovato*

Title

*Petr. Eng*

Date

*3/13/07*

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

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.

CONDITIONS OF APPROVAL  
Adhere to previously issued stipulations.

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# **Mesa Verde/Dakota Infill Drilling Well Completion Procedure**

**Well Name: Atlantic B LS 4M**  
**Version: 2.0**  
**Date: Feb 6, 2007**

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## **Summary of Objectives**

1. RU SU. Blow well down. POOH and LD completion string.
2. Set bridge plug to isolate DK formation.
3. RD SU. Prepare for rigless frac.
4. Perforate and frac (two-stage N2 Foam) the Mesaverde Point Lookout and Menefee formations with a flow-through BP between the two.
5. Clean out MV frac, perform flow test for production allocation.
6. Set bridge plug to isolate the MV and DK formations.
7. Dress/flare 4 1/2" casing top.
8. Set retrievable bridge plug in 7" and perforate squeeze holes
9. Set cement retainer and pump cement
10. Drill out cement and retrieve bridge plug
11. Drill out isolation plug, commingle MV/DK and clean out wellbore to PBTD.
12. Run completion string. RDSU
13. Turn well back to production.

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## **Pertinent Information**

<b>Location</b>	<b>Sec.5,30N-10W</b>	<b>Horizon</b>	<b>Basin Dakota/Mesaverde</b>
<b>County</b>	<b>San Juan</b>	<b>Engineer</b>	<b>Jesse Gracia</b>
<b>State</b>	<b>New Mexico</b>	<b>Phone #s</b>	<b>281-366-1946 wk. 713-828-0715 cell</b>
<b>API Number</b>	<b>30-045-32826</b>	<b>Geologist</b>	<b>Jim Perkins</b>
		<b>Phone #</b>	<b>281-366-0713</b>

**Note:** BTU content of the produced gas will exceed 1100. Therefore, adhere to requirements as detailed in Venting and Flaring document.

## **HSE Observations and Issues**

1. Materials and equipment taken to site will be handled with extreme care to reduce any potential hazard to the environment.
2. A safety meeting will be held at the beginning of each event. The site and surrounding area will be kept clean and tidy throughout all operations with appropriate warning signs will be placed around work area.
3. Flare whenever possible to reduce green house gas emissions. Record in DIMS
4. KPI's will be agreed upon on-site prior to perforating and stimulation operations.
5. Risk Assessment to be performed.

## **Completion Procedure**

**Note:** As applicable within the following completion program, reference the following BP DWOP documents for detailed procedures with regard to:

### **Applicable Normal Operating Procedures:**

**NOP 7803-01; Revision #5:** Procedure for At Risk Well Locations  
**NOP 7812; Revision #1:** Under balanced Well Control Tripping Procedure  
**NOP 7814; Revision #2:** Procedure for Flowback Operations  
**NOP 7804; Revision #2:** Wellbore Air Purge

### **Applicable Dispensations:**

**DWOP 9.4.1; Issue 5 – Document K5500000267**

“Stripping rubber to be used instead of Hydril / annular preventer”

**DWOP 24.2; Issue 5 – Document K5500000261**

“No dual mechanical barriers in annulus during all well servicing”

1. Review Preliminary Well Work Checklist Parts I, II, and III. Perform pre-rig site inspection and complete Preliminary Well Work Checklist Part IV. Coordinate with Planning & Scheduling for One Call if ground disturbance is required. Check rig anchors and ID wellhead. Review DIMS drilling / completion reports and casing / tubing records.
2. RU slickline equipment. RIH and set two barriers for isolation.
3. MI RU service unit and equipment. Ensure well and production equipment is LO/TO (energy isolation) including meter run, automation, separators, water lines, etc.
4. Read and record casing and bradenhead pressures. Ensure production casing has double casing valves. Blow down well and all annuli.
5. ND tree and NU BOPE per DWOP 24.2 Dispensation. Equip BOP stack with diversion spool with two double-valved 3" outlets and 3" pipe to the blow tank or flare pit per NOP 7812. Pressure test BOPE low at 250 psi and high at 2000 psi. POH and stand back tubing.
6. Pull tubing hanger, shut pipe rams and install stripping rubber.
7. PU extra tubing joints as necessary to RIH and tag for fill. 2 3/8" tubing currently set at 7412". POOH and LD tubing. ND mud cross.
8. Rig up electric line equipment and set 4-1/2" composite bridge plug at +/- 5500' to isolate Dakota. Make sure well is static and all valves are closed when running in the hole with plug and setting tool. Load hole with 2% KCL. Pressure test plug and casing to 1500 psi using rig pump.

9. ND BOP. NU frac valve and frac "Y". RU Stinger pressure test isolation tool. Pressure test to 7500 psi.
10. RD SU. Prepare for rigless frac.
11. Conduct risk assessment (JHA) prior to perf and frac operations. **NOTE:** Follow Schlumberger Explosive SOP. Any electronic device that transmits a signal should be shut off or prohibited from within 300' of location. Also, ensure all vehicle data recorder (VDR) systems are disabled prior to driving on location. Contact control center at (505) 326-9475 for verification.

#### **FIRST STAGE MESAVERDE (Pt. Lookout)**

12. Perforate the lower Mesa Verde (*Point Lookout formation*) using **120°** phasing as follows:
  - (5198, 5192, 5182, 5176, 5169, 5161, 5155, 5148, 5141) 4 SPF
  - (5132, 5122, 5115, 5108, 5096, 5087, 5081, 5074, 5067) 4 SPF
  - (72 holes total)
13. POOH with plug/gun assembly and check firing rate of guns. Immediately report to Houston if firing rate less than 100% to determine if additional runs need to be made.
14. RU wellhead isolation tool and Schlumberger equipment. Pressure test iron to Stinger frac valve at 7500 psi.
15. The frac is expected to pump at approximately 4000 psi. Maximum allowable treating pressure will be **5500 psi**
16. Set stagger pump trips to **5500-5700 psi**. Set PRV at **6500 psi**.
17. Frac the lower Mesa Verde interval as per Schlumberger schedule.

#### **SECOND STAGE MESAVERDE (Menefee)**

18. Rig-up electric line equipment. RIH with plug/gun assembly. Set flow-through frac plug at **5040'**.
19. Perforate the Mesaverde (Menefee) using **120°** phasing as follows:  
**(5015, 5007, 5001, 4991, 4981, 4956, 4948, 4938, 4929, 4921, 4894, 4847, 4842, 4800, 4793) @ 4spf ( 60 holes)**

20. POOH with plug/gun assembly and check firing rate of guns. Immediately report to Houston if firing rate less than 100% to determine if additional runs need to be made.
21. RU wellhead isolation tool and Schlumberger equipment. Pressure test iron to Stinger frac valve at 7500 psi.
22. The frac is expected to pump at approximately 4000 psi. Maximum allowable treating pressure will be **5500 psi**
23. Set stagger pump trips to **5500-5700 psi**. Set PRV at **6500 psi**.
24. Frac the lower Mesa Verde interval as per Schlumberger schedule.

## **FLOWBACK**

25. Rig down stinger and frac equipment. Open well up on ¼" choke and flowback overnight to clean up MV frac. After initial 8 hour flowback, open on ½" choke for 8 hours and then ¾" choke until stabilized.
26. RU service unit. ND frac "Y". (Compliant w/ DWOP 2.5 in regard to barriers). Install BOP on top of frac valve. Pressure test mud cross and pipe rams w/ FMC. Blow well down (follow under-balanced tripping procedure).
27. TIH w/ 2-3/8" tubing. Land tubing heavy. ND BOP. ND frac valve. NU BOP and pressure test. TIH to top of fill. Clean out sand to top of frac plug. Knock out frac plug and continue in hole to top of bridge plug at 5500'. Clean out as necessary.
28. When Mesaverde has been cleaned sufficiently, perform the 12-hour governmental flow test.

## **REMEDIAL CEMENT JOB**

29. Set bridge plug at @ +/- 4950'
30. Run and set 4 ½" packer at a tubing heavy depth and negative pressure test at 500 psi. ND 7" 3M diverter spool and BOP. ND tubing head. NU and test 11" 3M diverter spool and BOP. Release 4 ½" packer and POH.
31. Bring on fisherman. Run freepoint in 4 ½" casing. Note: 03/07/06 CBL indicates 4 ½" casing has good bond at 3500' and stringers as high as 2600'.
32. Cut 4 ½" as deep as possible (~ 2600'). POH and LD 4 ½" casing. Note: 02/28/06 CBL indicates 7" TOC ~ 1935'.

33. Set 7" Retrievable BP @ 2000'. Load hole w/ 2% KCl and pressure test at 1500 psi.
34. Run CBL on 7" from 2000' to surface and communicate results back to Houston engineers immediately
35. ND 11" 3M diverter spool and BOP. NU 11" 3M x 7" 5M tubing head. NU and test 7" 3M diverter spool and BOP.
36. See cement procedure (if needed)
37. Drill out cement and CO to retrievable BP @ ~2000'
38. Retrieve BP.
39. RIH and dress/flare top of 4 ½" casing.

## **CLEANOUT**

40. Drill out plug at 4950' and 5500'. Pick up additional tubing and RIH to PBTD @ 7487'. Clean out fill as necessary. Flow back MV/Dakota to clean up. When well has cleaned up sufficiently, POOH with tubing and bit.
41. Pick up and run BHA on 2 3/8" production tubing. Bottom hole assembly made up of: 2-3/8" mule shoe sub, "F" landing nipple with pump-thru plug, 2-3/8" x 4' sub, "X" landing nipple with pump-thru plug.
42. Land tubing in lower section of Dakota formation at approximately 7412'. Install tubing hanger, land in wellhead and set lock down pins. Continue to flow casing on ¾" choke to flare pit via 2" production casing valves.
43. ND BOP and mud cross. Install production tree. RU slickline unit. RIH and retrieve "X" & "F" plugs.
44. Send appropriate information to Cherry Hlava (281-366-4081) to file the C-104 as soon as possible.
45. Check pressures on all casing strings.
46. RDMO Service rig
47. Return well to production.

# Atlantic B LS 4M

Sec. 5, T30N R 10W

API: 30-045-32826

GL: 6221'

KB: 6235'

9-5/8" 32#, H-40

ST&C @ 213'

cmt to surf

7" 20#, J55 ST&C @ 4778'

DV tool @ 2376'

TOC @ 1936'

Mesa Verde Menefee

4793-5015'

60 holes

Mesa Verde Pt. Lookout

5065-5343'

60 holes

Tubing: 2-3/8"

4.7#, J55 @ 7412'

Cement/Fill?

@ ~7430'

Dakota Completion

7194-7421'

60 holes

4-1/2" 11.6# P-110

LT&C @ 7488'

marker jts @ 4203' & 7007'

TOC @ 3000'

PBTD @ 7487'

TD @ 7490'

Updated: 2/7/07 JG