

District I

1625 N. French Dr., Hobbs, NM 87240

District II

811 South First, Artesia, NM 87210

District III

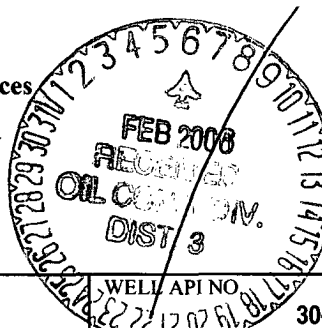
1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

## OIL CONSERVATION DIVISION

1220 South St. Francis Drive  
Santa Fe, NM 87505

WELL API NO. 30-045-09847

5. Indicate Type of Lease

STATE FEE ☒

State Oil &amp; Gas Lease No.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:

OIL WELL GAS WELL ☒ DRY OTHER

b. Type of Completion:

NEW WELL WORK OVER PLUG BACK ☒ DIFF. RESVR OTHER

7. Lease Name or Unit Agreement Name

Aztec Com 4

2. Name of Operator

BP America Production Company

8. Well No.

1

3. Address of Operator

P.O. Box 3092 Houston, TX 77253 Attn: Mary Corley

9. Pool name or Wildcat

Basin Fruitland Coal

4. Well Location

Unit Letter K : 1450 Feet From The South Line and 1650 Feet From The West Line  
Section 02 Township 30N Range 11W NMPM San Juan County

10. Date Spudded

12/28/55

11. Date T.D. Reached

01/31/56

12. Date Compl. (Ready to Prod.)

12/20/2005

13. Elevations (DF&amp; RKB, RT, GR, etc.)

5788' GR

14. Elev. Casinghead

15. Total Depth

2401"

16. Plug Back T.D.

2401'

17. If Multiple Compl. How Many Zones?

2

18. Intervals Drilled By

XX

Rotary Tools

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

2280' - 2315'

20. Was Directional Survey Made

NO

21. Type Electric and Other Logs Run

CBL

22. Was Well Cored

NO

## 23. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|----------------|-----------|-----------|------------------|---------------|
| 9 5/8"      | 32#            | 106'      | 12 1/4"   | 70 sxs           |               |
| 5 1/2"      | 15.5#          | 2318'     | 7 7/8"    | 100 sxs          |               |
| 3 1/2"      | 9.2#           | 2401'     | 5 1/4"    | 180 sxs          |               |
|             |                |           |           |                  |               |
|             |                |           |           |                  |               |

## 24. LINER RECORD

| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN |
|------|-----|--------|--------------|--------|
|      |     |        |              |        |
|      |     |        |              |        |

## 25. TUBING RECORD

| SIZE   | DEPTH SET | PACKER SET |
|--------|-----------|------------|
| 1 1/4" | 2145'     |            |
|        |           |            |

26. Perforation record (interval, size, and number)

2280' - 2315' w/ 6 JSPF. 65 Shots / 390 Holes

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL

AMOUNT AND KIND MATERIAL USED

2120' - 2195

CMT SQZ - 75 Sxs CLS G CMT

## 28. PRODUCTION

| Date First Production | Production Method (Flowing, gas lift, pumping - Size and type pump) |                         |                        |           | Well Status (Prod. or Shut-in) |                             |                 |
|-----------------------|---|-------------------------|------------------------|-----------|--------------------------------|-----------------------------|-----------------|
|                       | Flowing   |                         |                        |           | Producing                      |                             |                 |
| Date of Test          | Hours Tested  | Choke Size              | Prod'n For Test Period | Oil - Bbl | Gas - MCF                      | Water - Bbl.                | Gas - Oil Ratio |
| 12/20/2005            | 12  | 3/4"                    |                        | Trace     | 95                             | Trace                       |                 |
| Flow Tubing Press.    | Casing Pressure   | Calculated 24-Hour Rate | Oil - Bbl.             | Gas - MCF | Water - Bbl.                   | Oil Gravity - API - (Corr.) |                 |
|                       | 54#   |                         |                        |           |                                |                             |                 |

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

30. List Attachments

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature Mary Corley Printed Name Mary Corley Title Sr. Regulatory Analyst Date 01/31/2006

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

## Southeastern New Mexico

T. Anhy \_\_\_\_\_  
T. Salt \_\_\_\_\_  
B. Salt \_\_\_\_\_  
T. Yates \_\_\_\_\_  
T. 7 Rivers \_\_\_\_\_  
T. Queen \_\_\_\_\_  
T. Grayburg \_\_\_\_\_  
T. San Andres \_\_\_\_\_  
T. Glorieta \_\_\_\_\_  
T. Paddock \_\_\_\_\_  
T. Blinebry \_\_\_\_\_  
T. Tubb \_\_\_\_\_  
T. Drinkard \_\_\_\_\_  
T. Abo \_\_\_\_\_  
T. Wolfcamp \_\_\_\_\_  
T. Penn \_\_\_\_\_  
T. Cisco (Bough C) \_\_\_\_\_

T. Canyon \_\_\_\_\_  
T. Strawn \_\_\_\_\_  
T. Atoka \_\_\_\_\_  
T. Miss \_\_\_\_\_  
T. Devonian \_\_\_\_\_  
T. Silurian \_\_\_\_\_  
T. Montoya \_\_\_\_\_  
T. Simpson \_\_\_\_\_  
T. McKee \_\_\_\_\_  
T. Ellenburger \_\_\_\_\_  
T. Gr. Wash \_\_\_\_\_  
T. Delaware Sand \_\_\_\_\_  
T. Bone Springs \_\_\_\_\_  
T. \_\_\_\_\_  
T. \_\_\_\_\_  
T. \_\_\_\_\_  
T. \_\_\_\_\_

## Northwestern New Mexico

T. Ojo Alamo \_\_\_\_\_  
T. Kirtland-Fruitland \_\_\_\_\_  
T. Pictured Cliffs \_\_\_\_\_  
T. Cliff House \_\_\_\_\_  
T. Menefee \_\_\_\_\_  
T. Point Lookout \_\_\_\_\_  
T. Mancos \_\_\_\_\_  
T. Gallup \_\_\_\_\_  
Base Greenhorn \_\_\_\_\_  
T. Dakota \_\_\_\_\_  
T. Morrison \_\_\_\_\_  
T. Todilto \_\_\_\_\_  
T. Entrada \_\_\_\_\_  
T. Wingate \_\_\_\_\_  
T. Chinle \_\_\_\_\_  
T. Permian \_\_\_\_\_  
T. Penn "A" \_\_\_\_\_

T. Penn. "B" \_\_\_\_\_  
T. Penn. "C" \_\_\_\_\_  
T. Penn. "D" \_\_\_\_\_  
T. Leadville \_\_\_\_\_  
T. Madison \_\_\_\_\_  
T. Elbert \_\_\_\_\_  
T. McCracken \_\_\_\_\_  
T. Ignacio Otzte \_\_\_\_\_  
T. Granite \_\_\_\_\_  
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OIL OR GAS SANDS  
OR ZONES

No. 1, from.....to.....  
No. 2, from.....to.....

No. 3, from.....to.....  
No. 4, from.....to.....

## IMPORTANT WATER SANDS

**Include data on rate of water inflow and elevation to which water rose in hole.**

No. 1, from.....to.....feet.....  
 No. 2, from.....to.....feet.....  
 No. 3, from.....to.....feet.....

## LITHOLOGY RECORD (Attach additional sheet if necessary)

| From | To | Thickness<br>In Feet | Lithology |
|------|----|----------------------|-----------|
|      |    |                      |           |

| From | To | Thickness<br>In Feet | Lithology |
|------|----|----------------------|-----------|
|      |    |                      |           |

AZTEC COM 4 #1  
API No. 30-045-09847  
Downhole Commingling Subsequent Report

8/27/05 – MIRUSU. Killed well w/KCL WTR. NU BOP. TOH w/TBG. TIH w/scraper.

Blow well down. TOH. RU & ran GR,CCL,RST log from TD to 2358'. TIH & SET RBP @ 2012'. Test CSG to 550 PSI. OK. Test RPB to 1000 PSI – OK. TIH 2<sup>ND</sup> RBP & SET @ 1980'. TOH W/TBG. Tested CSG to 4000 PSI –OK.

TIH & unseat both RBPs & TOH. RU, TIH & set composite plug @ 2320. Perf 1<sup>st</sup> Stage from 2280' – 2315' w/6 JSPF. 35 Shots / 390 Holes. RU & frac 1<sup>st</sup> stage w/148,000# 16/30 Brady Sand & 70 Quality Foam.

RU, TIH & set composite plug @ 2220'. RU & Perf 2<sup>nd</sup> stage from 2120' - 2195' w/ 6 JSPF. 65 Shots / 390 Holes. RU & pumped 17 BBLS ACID @ 675 PSI. Broke circ up annulus. SD - 200 PSI on 3-1/2" CSG, 200 PSI on annulus, some pressure on Bradenhead.

09/12/2005 BP's Richard Pomrenke spoke with Charlie Perrin, OCD, and obtained approval to pump CMT down the 3 1/2" CSG. RU, Mix & pumped 75 SXS CL G CMT, 15.8 ppg; CMT was displace to within 1 BBL of top of perfs – 2120' - 2195' (top perfs isolated & will not be produced at this time). RU & ran CBL from 2140' to Surface – TOC @ 915'. Test CSG to 700 PSI – OK. No pressure on Bradenhead & no pressure on CSG strings. Notification to NMOCD of intent to cut 5 1/2" CSG @ 855'. RU & TIH & cut CSG @ 855'. RD. Spoke with Charlie Perrin -

Please reference attached memos detailing changes to original well work procedure.

Ran CBL from 850' to surface, some bond. TIH w/PKR & set @ 840'. TIH to 760' & test down TBG 500 PSI – OK. PU to 310 – would not test. PU to 253', Tested 5 1/2" to 500 PSI – OK. TOH.

RU & shot SQZ holes from 1120' to 1126'. SQZ w/300 sxs CLS G CMT. TIH & tag CMT @ 2041'. DO CMT to 2062'. TIH, load hole w/KCL WTR. Pressure test to 500 PSI – Leaked to 400 PSI in 9 MINS. TOH. TIH & set PKR @ 1165'. Test below PKR to 700 PSI – OK. Set PKR @ 1030' – Same leak below PKR. No leak on backside. TIH to 1165', spot 25 sxs CLS G CMT. TOH. Block SQZ 1.5 BBLS.

TIH & tag CMT @ 720'. Circ hole clean. DO CMT to 1160'. Pressure test SQZ to 500 PIS – did not hold. Bled to 340 PSI instantly, 0 PSI in 12 MINS. TIH & tag lower CMT @ 2057'. TOH.

TIH w/PKR & set @1165'. Test below PKR 1500 PSI – OK. PU to 1050' & set PKR test backside – 1500 PSI – OK. Establish rate below PKR to perfs @ 1120' – 1126'. SQZ 30 sxs CMT. Test CSG to 500 PSI – OK. TIH & tag CMT @ 852'. DO CMT to 1243', Circ hole clean. TIH & tag fill @ 2067'. DO to 2605'. Circ hole clean.

10/25/2005 Operations Suspended. RDMOSU

(OVER)

12/6/2005 MIRUSU. Fish out perf gun debris from wellbore. C/O to CIBP & DO CIBP. C/O to 2208'. TOH. TIH w/jars & engage. TOH.

12/20/2005 RU & flow test well for 12 hrs. 95 MCF Gas, Trace Oil, Trace WTR. CP 54#. TIH w/1 1/4" production TBG & land @ 2145'

RDMOSU. Rig released.

Pictured Cliffs (PC) is isolated with CIBP set @ 2320. It is our intent to produce the subject well in the Fruitland Coal (FC) in order to establish a decline rate for the FC, then drill out the CIBP and downhole commingle production with the PC.

**From:** Pomrenke, Richard W  
**Sent:** Monday, September 12, 2005 5:09 PM  
**To:** 'charlie.perrin@state.nm.us'  
**Cc:** Hatch, John R; Teel, Clifford C. (Sierra Engineering); 'cliff@cliffordteel.com'; Sauvageau, Kent A

Mr. Perrin,

Thank you for your consideration and expeditious approval of the procedure to pump cement down 3 1/2" to kill well. I understand that this is only approval of this step. Please see attached detailed procedure through final completion for worst case senerio. At such time as we run the CBL on the 3 1/2" x 5 1/2" annulus and based on results of cement job, removal of pressure the the annuli, we will confer for the next step in the regulatory process to insure that BP conforms to all regulatory requirements.

**From:** Pomrenke, Richard W [mailto:Richard.Pomrenke@bp.com]  
**Sent:** Wed 9/14/2005 9:48 AM  
**To:** Perrin, Charlie, EMNRD  
**Cc:** Hlava, Cherry L

Mr. Perrin,

Concerning the Aztec COMM 4-1, on 9-13-2005 a cement squeeze of perforations 2120'-2195' was made down 3 1/2" casing, 15.3 bbl of Class G cement 15.8 ppg was used at injection rate of 2 bpm to 0.7 bpm 500 psi to 750 psi. Cement was displaced to within 1 bbl of top of perforations. This AM there is no pressure on the 9 5/8" bradenhead and no pressure on the 3 1/2" x 5 1/2" annulus. We will be proceeding to drill out the cement squeeze to CIBP at 2220' and drill bridge plug and flow and clean up the Stage I fracture treatment of lower coal zone 2280'-2315'. The Upper Coals that were squeezed off at 2120'-2150' and 2175'-2195', will not be completed at this time and the final completion zone for the well will be 2280'-2315'.

Please advise if you are in concurrence with this plan of action.

**From:** Perrin, Charlie, EMNRD [mailto:charlie.perrin@state.nm.us]  
**Sent:** Wednesday, September 14, 2005 11:48 AM  
**To:** Pomrenke, Richard W; Hayden, Steven, EMNRD  
**Cc:** Hlava, Cherry L

Richard

Run your CBL and lets see where the cmt went, Conduct a Bradenhead test when the rig moves off the well and one a month for six months, submit these to me after each test.

**From:** Pomrenke, Richard W  
**Sent:** Thursday, September 15, 2005 9:30 AM  
**To:** 'Perrin, Charlie, EMNRD'; Hayden, Steven, EMNRD  
**Cc:** Hlava, Cherry L

Mr. Perrin,

Attached is the CBL on the AZTEC COM 4-1. The top of cement is at 915'. This volume correlates with estimated 13.9 bbls of cement circulated from 2120' (top of perforations). Annular volume between the 3 1/2" and 5 1/2" 2120' to 915' = 14.5 bbls. Looks like cement went up between the 3 1/2" x 5 1/2"

Although, since sending the email on 9-14-05 with 0 psi on all annuli, the following has occurred, 1 pm 9-14-2005 3 1/2" casing 0 psi, 3 1/2" x 5 1/2" 12 psi flowing small pencil

stream of brackish water (no gas). 1-3 pm flowed an estimated 1-2 bbls to tank. 5 1/2" x 9 5/8" 3 psi and small blow no fluid. Pressure tested 3 1/2" to 700 psi OK.

Well shutin overnight. 9-15-2005 @ 8 am 3 1/2" 0 psi, 3 1/2" x 5 1/2" 17 psi, 9 5/8" x 5 1/2" 12 psi. Opened 3 1/2" x 5 1/2" and flowed pencil stream of brackish water with no gas. Rig waiting on orders on bottom at 2130' with bit and 1 1/4" work string.

**From:** Hayden, Steven, EMNRD [mailto:steven.hayden@state.nm.us]  
**Sent:** Thursday, September 15, 2005 10:11 AM  
**To:** Pomrenke, Richard W

Henry Villanueva and I agree that a squeeze from 850', above the TOC at 915' will probably shut off the bradenhead flow and will also provide isolation of Ojo Alamo from the Nacimiento Fm.

**From:** Pomrenke, Richard W  
**Sent:** Thursday, September 15, 2005 12:12 PM  
**To:** 'Hayden, Steven, EMNRD'  
**Cc:** Hatch, John R; Teel, Clifford C. (Sierra Engineering)

Henry and Steve,

After more detailed review with BP management. The following changes to procedure are recommended.

1. Chemical cut 3 1/2" casing at freepoint +/- 900'.
2. Circulate brine water to kill well.
3. Install slickline plug in 3 1/2" above cut.
4. ND BOPS and remove slips on 3 1/2" and recover casing
5. Run CBL on 5 1/2" from +/- 900'.
6. Run bit and scraper for 5 1/2"
7. Set Retrievable bridge plug in 5 1/2" above the 3 1/2" cut and dump 10' of sand on plug.
8. Perforate +/-850' for cement circulation above cement in 5 1/2" annulus and circulate cement to surface (+/-150 sx Class G with 2% CaCl2.)
9. Cleanout and cement to retrievable bridge plug. Test casing to 500 psi.
10. If 5 1/2" leaks consideration will be given to running 3 1/2" back in hole with lead seal packoff and cement to surface.
11. Recover Retrievable Bridge Plug and continue cleanout of well to 2320' and flow test perforations 2280'-2315'.

Please send back your confirmation of this revised procedure or required changes.

**From:** Hayden, Steven, EMNRD [mailto:steven.hayden@state.nm.us]  
**Sent:** Thursday, September 15, 2005 2:54 PM  
**To:** Pomrenke, Richard W  
**Cc:** Perrin, Charlie, EMNRD; Villanueva, Enrique, EMNRD

The .ppt of the CBL is just one slide and is unusable. We require a copy of all logs run under the rules, so please send us a paper copy. The only way we can view electronic ones is as .tif files.

The plan sounds good to me, since the 5 1/2" casing TOC is lower than the 3 1/2".

Hopefully, this will fix the communication problem when you drill out to the lower Fruitland perms. If you are not going to do this today, you should talk to Charlie Perrin tomorrow about the procedure.

**From:** Pomrenke, Richard W  
**Sent:** Tuesday, September 20, 2005 12:07 PM  
**To:** 'Hayden, Steven, EMNRD'  
**Cc:** Perrin, Charlie, EMNRD; Villanueva, Enrique, EMNRD; Sauvageau, Kent A

Reference is made to procedure below 9-15-2005, which was previously approved. As a result of running the CBL 9-20-05 from 950' to surface on 5 1/2", the recommended procedure has been changed and is summarized below. The CBL should have already delivered to you. Current activity on well as of 10:00 am is running bit and scraper for 5 1/2" to 855' (chemical cut in 3 1/2") and then run packer to test 5 1/2" casing to 500 psi.

Below is BP recommended Procedure for protection of water zone at 320':

1. Set Retrievable bridge plug in 5 1/2" above the 3 1/2" cut at 850' and dump 10' of sand on plug.
2. Perforate +/-835' for cement circulation up the 5 1/2" X 7 3/4"+ hole annulus and attempt to circulate prior to cementing to surface with lead slurry of 33 bbls (185 ft3 of 12.5 ppg cement (50% excess of 7 3/4" open hole volume) + tail slurry 50sxs Class G with 2% CaCl2. Displace cement to 625' and hold pressure until surface samples set up.
3. Cleanout and cement to retrievable bridge plug. Test casing to 500 psi.
4. Run CBL from 840' to surface to ensure water sand at 320' is protected with cement.
5. If adequate cement is not present an alternate cement procedure will be determined.
6. If 5 1/2" leaks after cement job, consideration will be given to running 3 1/2" back in hole with packoff and cement to surface.
7. Recover Retrievable Bridge Plug and continue cleanout of well to 2320' and flow test perforations 2280'-2315'.

Please send back your confirmation of this revised procedure and or required changes.

**From:** Pomrenke, Richard W  
**Sent:** Wednesday, September 21, 2005 10:38 AM  
**To:** Perrin, Charlie, EMNRD; 'Hayden, Steven, EMNRD'  
**Cc:** Sauvageau, Kent A

Mr. Perrin,

Subsequent to our conversations yesterday concerning the Aztec COM 4-1, the 5 1/2" casing was tested using a packer and bad casing exists from 310'-710'. In light of this, the following is the recommended procedure:

- Pickup full open overshot 4 11/16" OD x 3" ID with spiral grapple and rubber packoff and RIH on 3 1/2" 9.2#/ft buttress casing and latch and seal onto stub of 3 1/2" casing at 855'.
- Perforate 3 1/2" casing using 2 1/8" perforating gun 1120'-1126' with 6 spf. (Calculated cross section area of flow through 2 nd casing string = 1.8 in2)
- Break circulation through 3 1/2" and out the 5 1/2" x 9 5/8".
- Mix and pump 250 sxs Class G with extenders to 12.5 ppg (Slurry Volume 93 bbls) + 50 sxs Class G with 2% CaCl2 to 15.8 ppg. Pump 5 bbl fresh water ahead and behind cement.

- Displace cement inside 3 1/2" to 775' (3 bbls high to circulation holes at 1120'-1126'. Hold displacement pressure for 24 hours.
- Pickup bit for 3 1/2" 2 1/4" slimhole collars and 1 1/4" work string and drill out cement to 2130'. Test casing to 750 psi and continue drilling out to 2320'.
- Note: Coal Zone from 2120' to 2315' was fracture treated with 148,800# sand 70% Q Foam with ISIP of 550 psi and not flowed back with CIBP set at 2220'.
- Care should be taken when drilling up bridge plug.

Please send back your confirmation of this revised procedure and or required changes.

**From:** Pomrenke, Richard W  
**Sent:** Wednesday, September 28, 2005 11:42 AM  
**To:** Perrin, Charlie, EMNRD  
**Cc:** Hlava, Cherry L; Sauvageau, Kent A; LeClerc, Bernard G

Mr. Perrin,

I wish to thank you for your great help and cooperation in working through the regulatory aspect of this well. The cement job went as scheduled with 103 bbls of cement slurry pumped through perforated holes at 1120'-1126' through both strings of casing 3 1/2" and 5 1/2". During the job the 3 1/2" x 5 1/2" and 5 1/2" x 9 5/8" were left open with 100% fluid returns and 35 bbls of cement returns at surface with each of the two annuli having cement returns. I feel confident that the OJO Alamo @ 939' and Kirkland @ 1069' are isolated with cement.

After 77 hours WOC, we tagged up at 2041' and tested casing to 500 psi. By Friday we anticipate drilling out cement and CIBP at 2220' and flowing the completion 2280' to 2315' in Fruitland Coal to clean up and then run 1 1/4" completion tubing.

Please advise if you require any further actions on the well prior to rig release.