

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

SEP 30 2014  
FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**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 page 2.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**Black Hills Gas Resources, Inc.**

3a. Address  
**P.O. Box 249 Bloomfield, NM 87413**

3b. Phone No. (include area code)  
**(505) 634-5104**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SHL: 1851' FSL & 838' FWL NW/SW Section 33 T30N R3W (UL: L)**  
**BHL: 1606' FSL & 909' FEL NE/SE Section 33 T30N R3W (UL: I)**

5. Lease Serial No. **30111** Field Office **BurMDA701-98-0013** Tract **1001**

6. If Indian, Allottee, or Tribe Name  
**Jicarilla Apache Tribe**

7. If Unit or CA. Agreement Name and/or No.  
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8. Well Name and No.  
**OIL CONS. DIV.**  
**Jicarilla 30-03-33 #31**

9. API Well No.  
**30-039-29446** **DIST. 3**

10. Field and Pool, or Exploratory Area  
**East Blanco Pictured Cliffs**

11. County or Parish, State  
**Rio Arriba County, New Mexico**

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production ( Start/ Resume)	<input type="checkbox"/> Water Shut-off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug back	<input type="checkbox"/> 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 performed or provide the Bond No. on file with the 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 Notice 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.)

**Per the Notice of Intent dated September 2, 2014, to plug and abandon Jicarilla 30-03-33 #31, Black Hills Gas Resources is submitting the attached plug and abandon procedure.**

**Black Hills Gas Resources will be using a closed loop system.**

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**



**H<sub>2</sub>S POTENTIAL EXIST**

14. I hereby certify that the foregoing is true and correct. Name (Printed/ Typed) **Daniel Manus** Title **Regulatory Technician**

Signature *Daniel Manus* Date *Sept 30 2014*

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

Approved by **Troy Salvors** Title **Petroleum Eng.** Date **10/3/2014**

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 any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

MMOCD 10

# PLUG AND ABANDONMENT PROCEDURE

September 30, 2014

## Jicarilla 30-03-33 #31

East Blanco Pictured Cliffs

Surface 1851' FSL, 838' FWL, Section 33, T30N, R3W, Rio Arriba County, NM

API 30-039-29446 / Long: \_\_\_\_\_ / Lat: \_\_\_\_\_

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

This project will use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.

1. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
2. Rods: Yes  , No \_\_\_\_\_, Unknown\_\_\_\_\_.  
Tubing: Yes  , No \_\_\_\_\_, Unknown\_\_\_\_\_, Size 2-3/8" , Length 3605'.  
Packer: Yes \_\_\_\_\_, No  , Unknown\_\_\_\_\_, Type \_\_\_\_\_  
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.  
**Run gyroscopic survey on wireline from PBTB to surface prior to spotting cement plugs.**
3. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo tops, 3595' – 3068')**: Round trip 5.5" casing scraper or gauge ring to 3595' or as deep as possible. TIH and set 5.5" CR or CIBP at 3595'. Pressure test tubing to 1000#. **Pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate.** Mix 66 sxs Class B cement and spot a balanced plug above CR or CIBP, inside the casing, to isolate the Pictured Cliffs interval and cover through the Fruitland, Kirtland and Ojo Alamo tops. PUH.  
**See CoA**
4. **Plug #2 (Nacimiento top, 2033' – 1933')**: Mix 17 sxs Class B cement and spot a balanced plug inside the casing to cover Nacimiento top. PUH.
5. **Plug #3 (Surface, 366' - Surface)**: Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 45 sxs cement and spot a balanced plug from 366' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casings to surface. Shut in well and WOC.
6. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. Cut off anchors and clean up location. Restore location per BLM stipulations.

**Jicarilla 30-03-33 #31**  
**Proposed P&A**  
**NWSW Sec 33, T30N, R03W**  
**Rio Arriba, NM**  
**API# 30-039-29446**

9/30/2014

Spud: 12/26/06  
 Compl: 1/29/07

7075' GL  
 7087' KB

12 1/4" hole

8 5/8" 24#, J-55 surface casing set @ 316', cmt w/ 250 sx. Circ 8 bbls cmt to surface

**Plug #3: 366' - 0'**  
 Class B cement, 45 sxs

7 7/8" hole

**Plug #2: 2033' - 1933'**  
 Class B cement, 17 sxs

Nacimiento 1983'

**Plug #1: 3595' - 3068'**  
 Class B cement, 66 sxs

Ojo Alamo 3118'

Kirtland 3367'

**Set CR at 3595'**

Fruitland 3492'

**Top of liner at 3625'**

Pictured Cliffs 3645'

**Window 3655-3668'**  
 Whipstock

**4 3/4" lateral hole 3655' - 7181' MD**

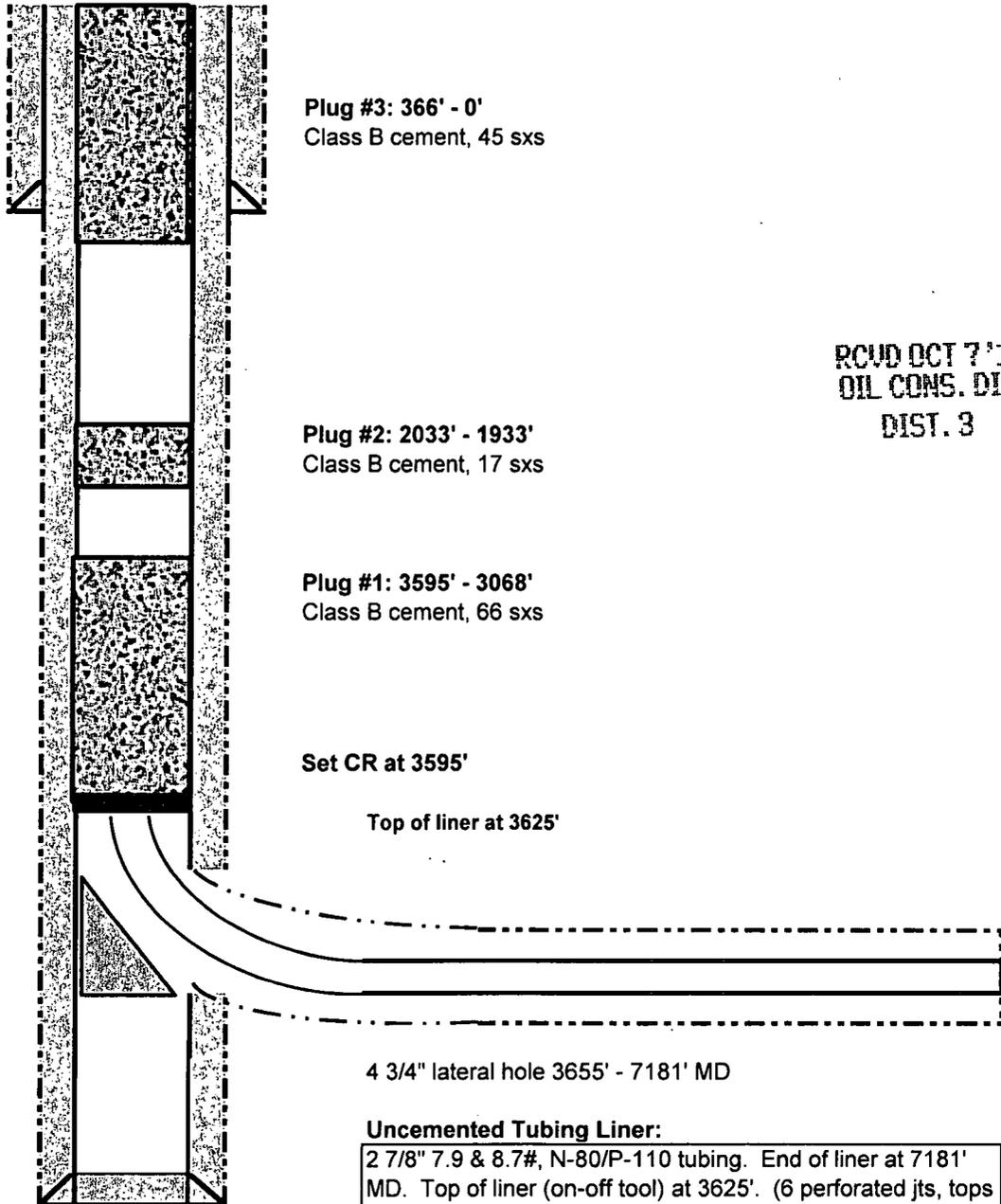
5 1/2" 15.5# J-55 prod casing set @ 3844'. Cmt w/ 800 sx, circ 40 bbls cmt to surface.

**Orig TD = 3844'**

**Uncemented Tubing Liner:**

2 7/8" 7.9 & 8.7#, N-80/P-110 tubing. End of liner at 7181' MD. Top of liner (on-off tool) at 3625'. (6 perforated jts, tops at 4608', 5120', 5627', 6136', 6646', 7151')

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**Jicarilla 30-03-33 #31**  
**Current Wellbore**  
**NWSW Sec 33, T30N, R03W**  
**Rio Arriba, NM**  
**API# 30-039-29446**

9/2/2014

Spud: 12/26/06  
 Compl: 1/29/07

7075' GL  
 7087' KB

12 1/4" hole

8 5/8" 24#, J-55 surface casing set @ 316', cmt w/ 250 sx. Circ 8 bbls cmt to surface.

7 7/8" hole

Nacimiento 1983'

Ojo Alamo 3118'

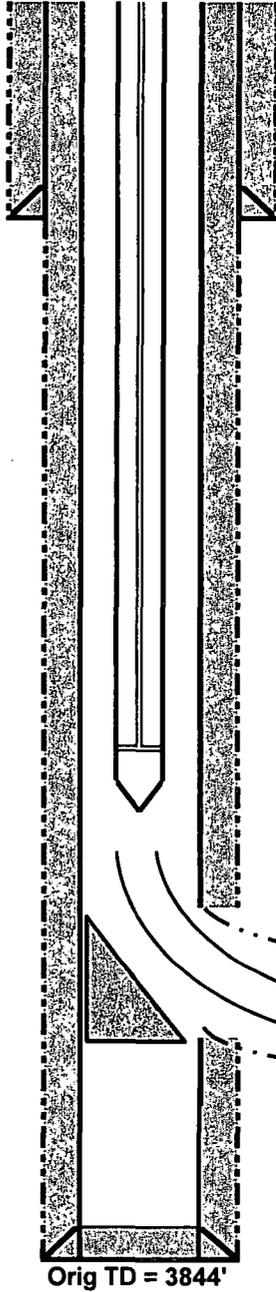
Kirtland 3367'

Fruitland 3492'

Pictured Cliffs 3645'

**Window 3655-3668'**  
 Whipstock

5 1/2" 15.5# J-55 prod casing set @ 3844'. Cmt w/ 800 sx, circ 40 bbls cmt to surface.



**TUBING DETAIL (1/5/08)**

1 jt 2 3/8" tbg  
 6' x 2 3/8" pup jt  
 108 jts 2 3/8" J-55 tbg  
 SN  
 4' x 3 1/2" perf sub  
 2 jts 3 1/2" tbg, bullplugged  
**EOT 3605'**

**ROD DETAIL (1/9/08)**

3 - 3/4" pony rods  
 136 - 3/4" rods  
 4 - 3/4" guided rods  
 2 x 1 1/2 x 16 RWAC

Top of liner at 3625'

4 3/4" lateral hole 3655' - 7181' MD

**Uncemented Tubing Liner:**

2 7/8" 7.9 & 8.7#, N-80/P-110 tubing. End of liner at 7181' MD. Top of liner (on-off tool) at 3625'. (6 perforated jts, tops at 4608', 5120', 5627', 6136', 6646', 7151')

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UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
FARMINGTON DISTRICT OFFICE  
6251 COLLEGE BLVD.  
FARMINGTON, NEW MEXICO 87402

Attachment to notice of  
Intention to Abandon:

Re: Permanent Abandonment  
Well: Jicarilla 30-03-33 #31

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Leases."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
  - a) Bring the top of plug #2 to 1871 ft. to cover the Nacimiento top. Adjust cement volume accordingly.

Note: High to very high concentrations of H<sub>2</sub>S (205 ppm-1731ppm GSV) have been reported in wells which produce gas from the Nacimiento, Ojo Alamo and San Jose formations within a 1 mile radius of this location. It is imperative that H<sub>2</sub>S monitoring and safety equipment be on location during the plugging operations at this wellsite.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.