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Form 3160-5  
(August 2007)

SEP 14 2015

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. <b>MDA 701-98-0013, Tract 1</b>
2. Name of Operator <b>Black Hills Gas Resources, Inc.</b>		6. If Indian, Allottee, or Tribe Name <b>Jicarilla Apache Tribe</b>
3a. Address <b>P.O. Box 249 Bloomfield, NM 87413</b>	3b. Phone No. (include area code) <b>(505) 634-5104</b>	7. If Unit or C.A. Agreement Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>2340' FSL &amp; 2335' FEL NW/SE Section 12 T29N R3W (UL: J)</b>		8. Well Name and No. <b>Jicarilla 29-03-12 #1</b>
		9. API Well No. <b>30-039-26395</b>
		10. Field and Pool, or Exploratory Area <b>Cabresto Canyon Tertiary</b>
		11. County or Parish, State <b>Rio Arriba County, New Mexico</b>

**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 recompleat 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 recompleat 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.)

**Black Hills Gas Resources intends to plug and abandon Jicarilla 29-03-12 #1 per attached procedure. BHGR will be using a close-loops system**

Attachments:  
P&A proposed procedure  
Reclamation Plan

OIL CONS. DIV DIST. 3  
SEP 25 2015

**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**

Notify NMOCD 24 hrs  
prior to beginning  
operations



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

14. I hereby certify that the foregoing is true and correct. Name (Printed/ Typed) <b>Daniel Manus</b>		Regulatory Technician II	
Signature <i>Daniel Manus</i>		Date <i>September 14, 2015</i>	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE			
Approved by <i>Troy Salvors</i>		Title <b>PE</b>	Date <i>9/22/2015</i>
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 <b>FFO</b>	

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)

NMOCD

KC  
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## PLUG AND ABANDONMENT PROCEDURE

August 24, 2015

### Jicarilla 29-03-12 #1

East Blanco PC /Cabresto Canyon; Tertiary  
2240' FSL, 2335' FEL, Section 12, T29N, R3W, Rio Arriba County, NM  
API 30-039-26395 / 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.

1. This well requires the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. 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.
3. Rods: Yes \_\_\_\_\_, No X, Unknown \_\_\_\_\_.  
Tubing: Yes X, No \_\_\_\_\_, Unknown \_\_\_\_\_, Size 2-3/8", Length 3700'.  
Packer: Yes \_\_\_\_\_, No X, Unknown \_\_\_\_\_, Type \_\_\_\_\_.  
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.
4. **Plug #1 (Pictured Cliffs, Fruitland, Kirtland and Ojo Alamo interval, Nacimiento perforations, 3593' – 2832'):** Round trip 5.5" casing scraper to 3593' or as deep as possible. TIH and set 5.5" CR at 3593'. Pressure test tubing to 1000#. Mix 100 sxs Class B cement (100% excess over open perforations) and spot a plug to isolated the PC, Fruitland, Kirtland and Ojo Alamo tops and Nacimiento perforations. PUH and WOC. TIH and tag TOC 50' higher than top Nacimiento perf. If tag is low spot additional cement as required. TOH.
5. **Plug #2 (Nacimiento top, 2176' – 2076'):** <sup>See COA</sup> Mix 17 sxs Class B cement and spot a balanced plug inside the casing to isolate the Nacimiento top. TOH and WOC. RIH and tag at 50' above Nacimiento top. TOH.
6. **Plug #3 (San Jose perforations, 1192' – 1092'):** TIH and set 5.5" CR at 1192'. Attempt to pressure test casing to 1000#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 17 sxs Class B cement and spot a balanced plug inside casing above CR to isolate the San Jose interval. PUH.
7. **Plug #4 (8-5/8" Surface casing shoe, 292' - 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 35 sxs cement and spot a balanced plug from 292' 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 casing from 292' and the annulus from the squeeze holes to surface. Shut in well and WOC.
8. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and cut off anchors. Restore location per BLM stipulations.

# Jicarilla 29-03-12 #1

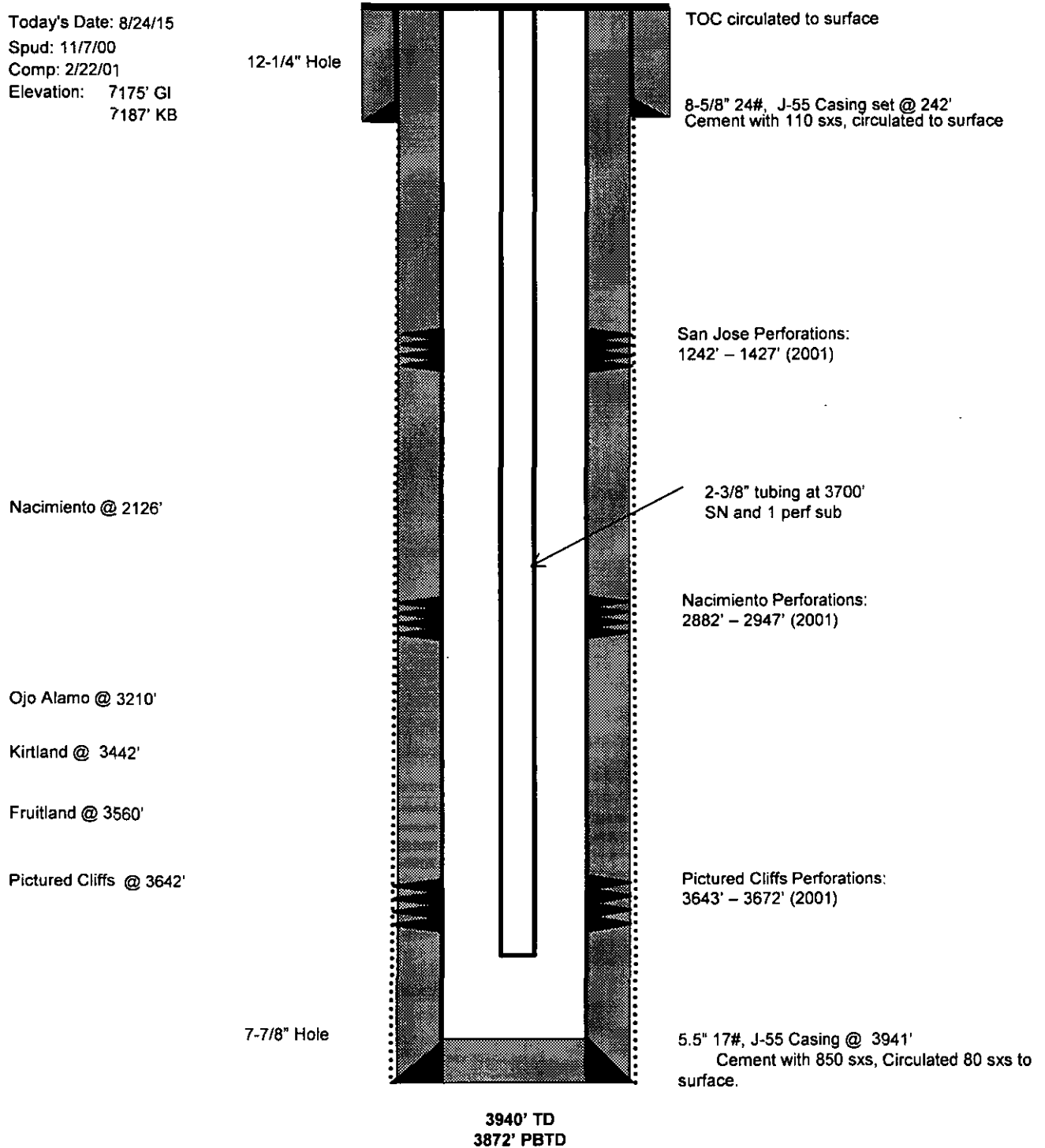
## Current

East Blanco PC/ Cabresto Canyon Tertiary

2240' FSL & 2335' FEL, Section 12, T-29-N, R-3-W , Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-26395

Today's Date: 8/24/15  
Spud: 11/7/00  
Comp: 2/22/01  
Elevation: 7175' GI  
7187' KB



# Jicarilla 29-03-12 #1

## Proposed P&A

East Blanco PC/ Cabresto Canyon Tertiary

2240' FSL & 2335' FEL, Section 12, T-29-N, R-3-W, Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-26395

Today's Date: 8/24/15

Spud: 11/7/00

Comp: 2/22/01

Elevation: 7175' GI  
7187' KB

12-1/4" Hole

TOC circulated to surface

Plug #4: 292' - 0'  
Class B cement, 35 sxs

8-5/8" 24#, J-55 Casing set @ 242'  
Cement with 110 sxs, circulated to surface

Plug #3: 1192' - 1092'  
Class B cement, 17 sxs

Set CR @ 1192'

San Jose Perforations:  
1242' - 1427' (2001)

Plug #2: 2176' - 2076'  
Class B cement, 17 sxs

Nacimiento @ 2126'

Nacimiento Perforations:  
2882' - 2947' (2001)

Ojo Alamo @ 3210'

Plug #1: 3593' - 2832'  
Class B cement, 100 sxs  
(100% excess over open  
perfs)

Kirtland @ 3442'

Set CR @ 3593'

Fruitland @ 3560'

Pictured Cliffs Perforations:  
3643' - 3672' (2001)

Pictured Cliffs @ 3642'

7-7/8" Hole

5.5" 17#, J-55 Casing @ 3941'  
Cement with 850 sxs, Circulated 80 sxs to  
surface.

3940' TD  
3872' PBTD

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 29-03-12 #1

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 1971 ft. to cover the Nacimiento top. Adjust cement volume accordingly.

Note: High to very high concentrations of H<sub>2</sub>S have been reported in wells which produce gas from the Nacimiento, Ojo Alamo and San Jose formations to the north 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.