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Form 3160-5  
(August 2007)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Farmington Field Office  
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 CA. Agreement Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>860' FNL &amp; 660' FWL NW/NW Section 20 T29N R2W (UL: D)</b> <i>2</i>		8. Well Name and No. <b>Jicarilla 29-02-20 #1</b>
		9. API Well No. <b>30-039-26093</b>
		10. Field and Pool, or Exploratory Area <b>La Jara 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 reclamantion, 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 29-02-20 #1 per attached procedure.**

**A closed loop system will be use.**

OIL CONS. DIV DIST. 3

MAY 11 2015

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

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

**Notify NMOCD 24 hrs  
prior to beginning  
operations**

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

**Daniel Manus**

**Regulatory Technician II**

Signature

*Daniel Manus*

Date

*May 04, 2015*

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*Troy Salvors*

Title **PE**

Date **5/7/2015**

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)

NMOCD

KC  
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## PLUG AND ABANDONMENT PROCEDURE

April 28, 2015

### Jicarilla 29-02-20 #1

East Blanco Pictured Cliffs / Cabresto Canyon; San Jose Ext.  
860' FNL, 660' FWL, Section 20, T29N, R2W, Rio Arriba County, NM  
API 30-039-26093 / 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 project will use 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 \_\_\_\_\_, Unknown\_\_\_\_\_.  
Tubing: Yes  , No \_\_\_\_\_, Unknown\_\_\_\_\_, Size 2-7/8" , Length 3004'.  
Packer: Yes \_\_\_\_\_, No  , Unknown\_\_\_\_\_, Type \_\_\_\_\_.  
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate. Round trip 5.5" casing scraper.
- See COA*
4. **Plug #1 (Nacimiento interval, 2128' – 2028')**: PU 5.5" cement retainer and RIH; set at 2128'. Mix and pump 24 sxs Class B cement (additional 7 sxs due to open perforations). Note: This plug is to cover only the Nacimiento interval. San Jose perforations will be covered by Plug #2.
  5. **Plug #2 (San Jose perforations, 909' – 809')**: PU 5.5" cement retainer and RIH; set at 909'. Mix and pump 17 sxs Class B cement and spot above CR to isolate perforations. Pressure test casing to 800#. If casing does not test, then spot or tag subsequent plugs as appropriate.
  6. **Plug #3 (8-5/8" casing shoe and surface, 584' – 0')**: 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 70 sxs cement and spot a balanced plug from 584' 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.
  7. 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 29-02-20 #1

## Current

East Blanco Pictured Cliffs / Cabresto Canyon; San Jose Ext.  
860' FNL & 660' FWL, Section 20, T-29-N, R-2-W, Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-26093

Today's Date: 4/28/15

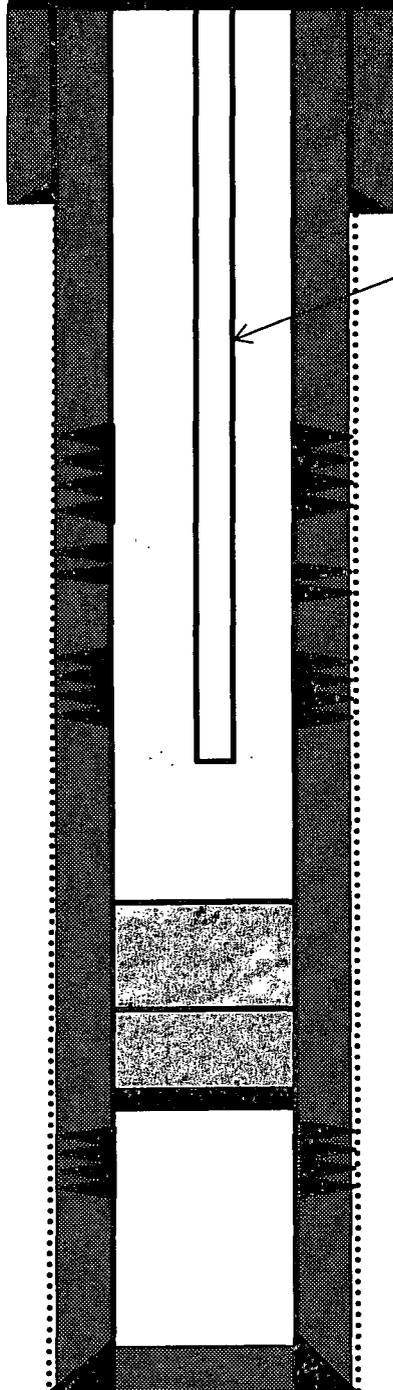
Spud: 1/17/99

Comp: 3/3/99

Elevation: 7138' GI

7151' KB

12-1/4" Hole



8-5/8" 24# K-55 Casing set @ 534'  
Cement with 350 sxs, circulated to surface

2-7/8" tubing at 3004'  
(94 jts, SN, perf jt. 117 - 1" rods and 2 1/2" pump)

San Jose Perforations:  
959' - 2018'

San Jose Perforations:  
2084' - 2096'

Nacimiento Perforations:  
2178' - 2914'

Cement Plug 3058' - 3290'  
(25 sxs cement)

Fish at +/- 3300'

CIBP @ 3458' (1999)

Fruitland Coal Perforations:  
3558' - 3585'

5.5" 15.5# K-55 Casing @ 3859'  
Cement with 650 sxs, circ 55 sxs to pit

Nacimiento @ 2096'

Ojo Alamo @ 3106'

Kirtland @ 3429'

Fruitland @ 3506'

Pictured Cliffs @ 3597'

7-7/8" Hole

3870' TD  
3746' PBD

# Jicarilla 29-02-20 #1

## Proposed P&A

East Blanco Pictured Cliffs / Cabresto Canyon; San Jose Ext.  
 860' FNL & 660' FWL, Section 20, T-29-N, R-2-W, Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-26093

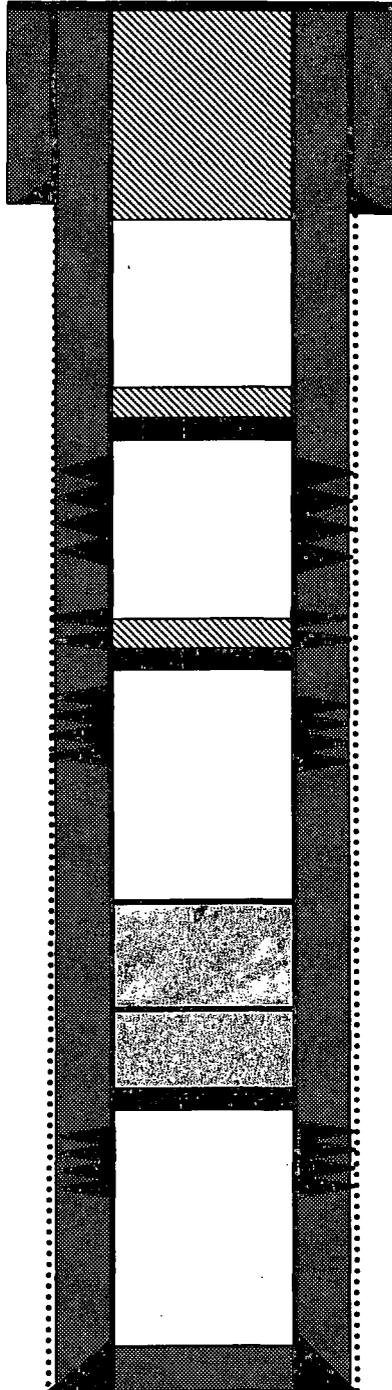
Today's Date: 4/28/15

Spud: 1/17/99

Comp: 3/3/99

Elevation: 7138' GI  
 7151' KB

12-1/4" Hole



8-5/8" 24#, K-55 Casing set @ 534'  
 Cement with 350 sxs, circulated to surface

**Plug #3: 584' - 0'**  
 Class B cement, 70 sxs

**Set CR at 909'**

San Jose Perforations:  
 959' - 2018'

**Plug #2: 909' - 809'**  
 Class B cement, 17 sxs

San Jose Perforations:  
 2084' - 2096'

**Set CR at 2128'**

Nacimiento Perforations:  
 2178' - 2914'

**Plug #1: 2128' - 2028'**  
 Class B cement, 24 sxs  
 (excess due to open perms)

Cement Plug 3058' - 3290'  
 (25 sxs cement)

Fish at +/- 3300'

CIBP @ 3458' (1999)

Fruitland Coal Perforations:  
 3558' - 3585'

Nacimiento @ 2096'

Ojo Alamo @ 3106'

Kirtland @ 3429'

Fruitland @ 3506'

Pictured Cliffs @ 3597'

7-7/8" Hole

5.5" 15.5#, K-55 Casing @ 3859'  
 Cement with 650 sxs, circ 55 sxs to pit

3870' TD  
 3746' PBD

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 29-02-20 #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 #1 to 1935 ft. to cover the Nacimiento top. Adjust cement volume accordingly.

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.