

RECEIVED

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Alamogordo Field Office

MAR 26 2013

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		6. If Indian, Allottee, or Tribe Name Jicarilla Apache Tribe	
2. Name of Operator Black Hills Gas Resources, Inc.		7. If Unit or CA. Agreement Name and/or No. Jicarilla 460-16 #4	
3a. Address 3200 N 1st St, Bloomfield, NM 87413	3b. Phone No. (include area code) (505) 634-5104	9. API Well No. 30-039-25785	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 840' FSL & 1180' FWL Section 16 T30N R3W(UL: M)		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 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.)

Per the Notice of Intent dated February 21, 2013, to plug and abandon Jicarilla 460-16 #4, Black Hills Gas Resources is submitting the attached plug and abandon procedure.

Notify NMOC 24 hrs
prior to beginning
operations

**RCVD APR 2 '13
OIL CONS. DIV.
DIST. 3**

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

Daniel Manus

Regulatory Technician

Title

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

MAR 28 2013

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 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)

NMOC

PLUG AND ABANDONMENT PROCEDURE

March 12, 2013

Jicarilla 460-16 #4

East Blanco PC / Cabresto Canyon Ojo Alamo Ext.
840' FSL, 1180' FWL, Section 16, T30N, R3W, Rio Arriba County, NM
API 30-039-25785 / 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 requires a NMOCD C-144 CLEZ Closed-Loop System Permit for 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 _____, Unknown _____.
Tubing: Yes X, No _____, Unknown _____, Size 2-3/8", Length 3814'.
Packer: Yes X, _____, Unknown _____, Type A-1X packer at 3742'.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.

NOTE: Due to high probability of holes in tubing (bradenhead test indicated casing and tubing had 53# pressure) and scale buildup and restricted ID through Ojo Alamo perforations above packer, the decision was made to leave the packer in the well. PU on tubing and release from on/off tool. TOH and LD tubing. PU workstring.

4. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo tops, (3742' – 3194')):** TIH with workstring and tag packer. Mix 53 sxs Class B cement (note: 100% excess over perforations) and spot a plug above the packer to isolate the PC interval and cover through the Ojo Alamo perforations. PUH and WOC. TIH and tag cement. Plug should be at least 50' above the top of the Ojo Alamo. PUH.
5. **Plug #2 (Nacimiento top, ²⁰⁷⁶2101' – ¹⁹⁷⁶2001')**: Mix 12 sxs Class B cement and spot a balanced plug inside the casing to cover the Nacimiento top. PUH.
6. **Plug #3 (8-5/8" Surface casing shoe, 594' - 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 50 sxs cement and spot a balanced plug from 594' 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 594' and the annulus from the squeeze holes 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. RD, MOL and cut off anchors. Restore location per BLM stipulations.

Jicarilla 460-16 #4

Current

East Blanco PC/ Cabresto Canyon Ojo Alamo Ext.

840' FSL & 1180' FWL, Section 16, T-30-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-25785

Today's Date: 3/12/13

Spud: 3/23/98

PC Comp: 4/12/98

Ojo Alamo Ext. Comp: 3/22/05

Elevation: 7251' GI

7263' KB

12-1/4" Hole

TOC circulated to surface
per completion report

8-5/8" 24#, K-55 Casing set @ 544'
Cement with 300 sxs, circulated 84 sx to
surface

Nacimiento @ 2051' *est

2-3/8" tubing at 3814'
(121 jts, 4 pup jts, on-off tool, R nipple, A-1X pkr)

Ojo Alamo @ 3244'

Ojo Alamo Perforations:
3247' - 3291'

Kirtland @ 3482'

Fruitland @ 3665'

A-1X packer at 3742'

Pictured Cliffs @ 3780'

Pictured Cliffs Perforations:
3780' - 3856'

7-7/8" Hole

4.5" 10.5#, J-55 Casing @ 4049'
Cement with 870 sxs, circ 10 sxs to surface

4070' TD
3841' COTD

Jicarilla 460-16 #4

Proposed P&A

East Blanco PC/ Cabresto Canyon Ojo Alamo Ext.

840' FSL & 1180' FWL, Section 16, T-30-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-25785

Today's Date: 3/12/13

Spud: 3/23/98

PC Comp: 4/12/98

Ojo Alamo Ext. Comp: 3/22/05

Elevation: 7251' GI
7263' KB

12-1/4" Hole

Nacimiento @ 2051' *est

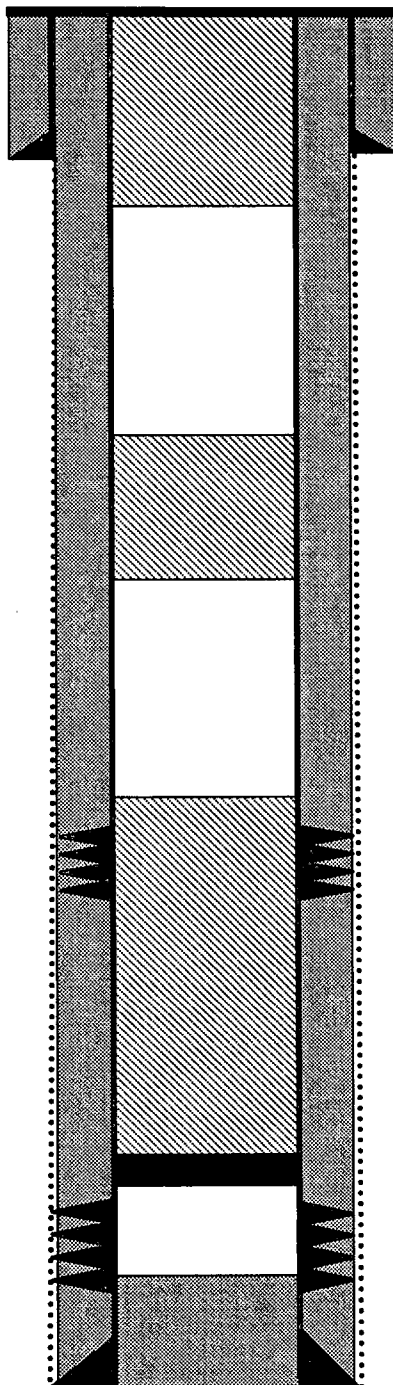
Ojo Alamo @ 3244'

Kirtland @ 3482'

Fruitland @ 3665'

Pictured Cliffs @ 3780'

7-7/8" Hole



TOC circulated to surface
per completion report

8-5/8" 24#, K-55 Casing set @ 544'
Cement with 300 sxs, circulated 84 sx to
surface

Plug #3: 594' - 0'
Class B cement, 50 sxs

Plug #2: 2101' - 2001'
Class B cement, 12 sxs

Ojo Alamo Perforations:
3247' - 3291'

Plug #1: 3742' - 3194'
Class B cement, 53 sxs
(100% excess over perfs)

A-1X packer at 3742'

Pictured Cliffs Perforations:
3780' - 3856'

4.5" 10.5#, J-55 Casing @ 4049'
Cement with 870 sxs, circ 10 sxs to surface

4070' TD
3841' COTD

The Jicarilla Apache Nation requires 45 days to evaluate this well beginning from February 22, 2013 in order to determine if they would like to assume ownership of the well. If the Jicarilla Apache Nation has not contacted your office before the end of the 45 days you may proceed with plugging operations.

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: 4 Jicarilla 460-16

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
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) Place the Nacimiento plug from 2076' - 1976'.
 - b) You are required to have H₂S monitoring equipment and personnel on location during plugging operations.

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.