

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

RCVD AUG 27 '14  
OIL CONS. DIV.

AUG 15 2014

DIST 3  
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>Jicarilla Contract 458-5 #2</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>1850' FSL &amp; 790' FWL NW/SW Section 5 T30N R3W (UL: L)</b>		8. Well Name and No. <b>Jicarilla 458-05 #2</b>
		9. API Well No. <b>30-039-25781</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 recompleate 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 recompleation 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.)

Per the Notice of Intent dated May 14, 2014, to plug and abandon Jicarilla 458-05 #2, Black Hills Gas Resources is submitting the attached plug and abandon procedure.

BHGR will be using a closed loop system.

**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**



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

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

**Daniel Manus**

**Regulatory Technician II**

Title

Signature

Date

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

Approved by

**Troy Salvess**

Title

**Petroleum Eng.**

Date

**8/25/2014**

Office

**FFO**

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.

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**

*ke*

*5*

## PLUG AND ABANDONMENT PROCEDURE

July 16, 2014

### Jicarilla 458-05 #2

East Blanco Pictured Cliffs

Surface 1850' FSL, 790' FWL, Section 5, T30N, R3W, Rio Arriba County, NM

API 30-039-25781 / 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 X, No \_\_\_\_\_, Unknown\_\_\_\_\_.  
Tubing: Yes X, No \_\_\_\_\_, Unknown\_\_\_\_\_, Size 2-7/8", Length 3944'.  
Packer: Yes \_\_\_\_\_, No X, 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 to 3722' or as deep as possible.
3. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo tops):** RIH and set 5.5" CR at 3722'. Pressure test tubing to 1000#. Pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 71 sxs Class B cement and spot a balanced plug above CR, inside the casing, to cover the Pictured Cliffs interval and the Fruitland, Kirtland and Ojo Alamo tops. PUH. (3722 - 3152) FL.
4. **Plug #2 (Nacimiento top, 2094' - 1994'):** Mix 17 sxs Class B cement and spot a balanced plug inside the casing to cover Nacimiento top. PUH.
5. **Plug #3 (Surface, 584' - 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 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.
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.

7/16/2014

**Jicarilla 458-05 #2**  
Current Wellbore  
NWSW Sec 5, T30N, R03W  
Rio Arriba, NM  
API# 30-039-25781

Spud: 3/17/98  
Compl: 4/4/98

7147' GL  
7161' KB

12 1/4" hole

8 5/8" 24#, J-55 surface casing set @ 534', cmt w/ 300 sx. Circ 95 sx to surface

7 7/8" hole

Nacimiento 2044'

Ojo Alamo 3202'

Kirtland 3418'

Fruitland 3657'

Window from 3754-3765'

Pict Cliffs 3772'

5 1/2" 15.5# J-55 prod casing set @ 4039'. Cmt w/ 720 sx, circ 100 sx to surface.

PBTD = 3985'  
TD = 4060'

**2 3/8" TUBING DETAIL (9/11/07)**

124 jts 2 7/8" J-55 tbg	
SN	3908'
4' perf sub	
1 jt 2 7/8" mud anchor	
bull plug	
EOT	3944'

**ROD DETAIL (9/11/07)**

26' x 1 1/4" polish rod
151 - 3/4" rods
4 - 3/4" guided rods
2 1/2 x 1 1/4 x 12 RHAC

San Jose perms: 1552-1564, 1581-1615'. Sqz'd w/ 75 sx 8/6/2005

Ojo Alamo perms: 3212-3244'. Sqz'd w/ 75 sx 8/5/2005.

4 3/4" lateral hole 3760' - 6587' MD

**Uncemented Tubing Liner:**

2 7/8" 8.7#, N-80 tubing cutoff at 3780'. End of tbg at 6500'. (82 jts and 5 perforated jts)

7/16/2014

**Jicarilla 458-05 #2**  
Proposed P&A  
NWSW Sec 5, T30N, R03W  
Rio Arriba, NM  
API# 30-039-25781

Spud: 3/17/98  
Compl: 4/4/98

7147' GL  
7161' KB

12 1/4" hole

8 5/8" 24#, J-55 surface  
casing set @ 534', cmt  
w/ 300 sx. Circ 95 sx to  
surface

7 7/8" hole

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

**San Jose perms: 1552-1564, 1581-1615' .** Sqz'd  
w/ 75 sx 8/6/2005

Nacimiento 2044'

**Plug #2: 2094' - 1994'**  
Class B cement, 17 sxs

Ojo Alamo 3202'

**Ojo Alamo perms: 3212-3244' .**  
Sqz'd w/ 75 sx 8/5/2005.

Kirtland 3418'

Fruitland 3657'

**Plug #1: 3722' - 3152'**  
Class B cement, 71 sxs  
Set CR @ 3722'

**Window from 3754-3765'**

Pict Cliffs 3772'

5 1/2" 15.5# J-55 prod  
casing set @ 4039'.  
Cmt w/ 720 sx, circ 100  
sx to surface.

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2 7/8" 8.7#, N-80 tubing cutoff at 3780'. End of tbg at 6500'.  
(82 jts and 5 perforated jts)

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 458-05 #2

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.

Note: Operator reports very high concentrations of H<sub>2</sub>S 1085 ppm GSV at this location from the Ojo Alamo formation. It is imperative that H<sub>2</sub>S monitoring and safety equipment be on location during the P&A 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.