

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

1. TYPE OF WELL

Oil Well ☐ Gas Well ☒ Other: \_\_\_\_\_

2. NAME OF OPERATOR

**Black Hills Gas Resources, Inc.**

3. ADDRESS AND TELEPHONE NO.

350 Indiana Street, Suite 400  
Golden CO 80401

CONTACT: Lynn Benally (local)  
PHONE: 505.634.1111 Ext. 27  
Fax: 505.634.1116

4. LOCATION OF WELL (Footage, T, R, M, or Survey Description)

2,050' FNL 630' FEL

Sec. 11 T 29N R 3W

5. LEASE SERIAL NO.

MDA 701-98-0013, Tract 1

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache Nation

7. IF UNIT OR CA, AGREEMENT DESIGNATION

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8. WELL NAME AND NO.

Jicarilla 29-03-11 2

9. API WELL NO.

30-039-26731

10. FIELD AND POOL, OR EXPLORATORY AREA

East Blanco / Pictured Cliffs

11. COUNTY OR PARISH, STATE

Rio Arriba New Mexico

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

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Reclamation

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (start/resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other  
Lateral Re-drill  
due to collapse.

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 be 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 Notices 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.

The location was permitted for Mallon Oil Company, now known as Black Hills Gas Resources, Inc. (Black Hills), with an APD submitted to the Bureau of Land Management (BLM) in Rio Puerco, New Mexico and New Mexico Oil Conservation Division (NMOCD) on February 22, 2001. The well was approved by the BLM on March 28, 2001, with first production in August, 2001. A Sundry Notice was submitted the the BLM on June 7, 2004, for a horizontal re-entry. The lateral portion of this well collapsed and Black Hills proposes to re-enter and re-drill the lateral portion with the end of the lateral bore still proposed at 660' FNL 630' FEL of Sec. 11 T29N R3W and no change in azimuth.

Please send a copy of all correspondence to Banko Petroleum Management Inc. at 385 Inverness Parkway, Suite 420, Englewood, CO 80112-5849. Please contact David Banko or Kathy Schneebeck at 303-820-4480, or david@banko1.com or kathys@banko1.com, respectively, if you have any questions. Thank you.

CONDITIONS OF APPROVAL  
Adhere to previously issued stipulations.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Kathy L. Schneebeck - 303-820-4480

Title: Permit Agent for Black Hills Gas Resources, Inc.

Signature

*Kathy L. Schneebeck*

Date: July 29, 2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE.

Approved by

*Jim Lovato*

Title

*Petr. Eng.*

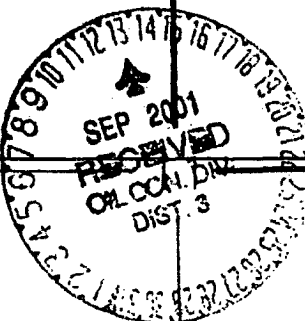
Date

*8/5/05*

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

MAINTAIN FOR directional survey & change in status to: **NMOCD**  
Jicarilla 29 3 11 # 3

FD. BC U.S.C.L.O. 1917	S 89-33-42 W 3272.2	FD. BC U.S.C.L.O. 1917	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
Proposed BHL		2050'	
		830'	
		LAT. 36°44'30"N LONG. 107°06'47"W	
		3203.6	
			18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge.
		S 00-06-48 E 781.5	
			Date of Survey: 10-31-00 Signature: [Signature] Seal of Professional Surveyor: [Seal] Title: REG. A. RUSH Certificate Number: 8894
			U.S.C.L.O. 1917

Black Hills Gas Resources, Inc.  
**Jicarilla 29-03-11 2**  
**API #30-039-26731**  
**Surface: 2,050' FNL 630' FEL (SE/4 NE/4)**  
**End of Horizontal Hole: 660' FNL 660' FWL (NW/4 NW/4)**  
Sec. 11 T29N R3W  
Rio Arriba County, New Mexico  
Lease: MDA 701-98-0013 Tract 1

### DRILLING PROGRAM

This Sundry Notice is submitted per CFR 3162.3-2. The existing well pad and reserve pit will be utilized "as is."

**This is a lateral re-drill of the collapsed existing well Jicarilla 29-03-112 to the Pictured Cliffs Formation.**

**SURFACE FORMATION** – San Jose. Surface water protection plan: Surface casing will be cemented to surface.

**GROUND ELEVATION** – 7,208' GL

**ESTIMATED FORMATION TOPS** (Water, oil, gas and/or other mineral-bearing formations).

**All Depths are True Vertical Depth (TVD)**

San Jose	Surface	Sandstone, shales and siltstones
Fruitland Coal	3,622'	Sandstone, shales and siltstones
Pictured Cliffs	3,714'	Sandstone, shales and siltstones
Lewis Shale	3,816'	Sandstone, shales and siltstones

TOTAL DEPTH	3,766' TVD (end of horizontal hole)	7,985' (anticipated horizontal section)
	5,880' MD	

Estimated depths of anticipated fresh water, oil, or gas:

Tertiary

Pictured Cliffs	3,714'	Gas
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### RE-ENTRY – HORIZONTAL DRILLING PROGRAM

- A) A 2,000-psi WP double-gated BOP will be installed on the tubing head with blind rams on bottom and pipe rams on top controlled by an accumulator placed within easy access to drill and other crew members.
- B) No annular preventor will be placed above BOP stack.
- C) Closed perforations at 1,260' – 1,521' (San Jose) and 2,270' – 2,960' (Nacimiento).
- D) Cast iron bridge plug at 3,710' to be set for whipstock.
- E) Window was milled out of 5-1/2" csg at ±3,693' – 3,700'.
- F) Open hole lateral from 3,693' – 7,397'.
- G) Re-drill Lateral Kick Off Point is estimated to be at 3,900'.

CASING PROGRAM

True Vertical Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 254'	12-1/4"	8-5/8"	K-55 24# ST&C	To surface (previously set)
0' – 4,014'	7-7/8"	5-1/2"	K-55 17# LT&C	To surface (previously set)
3,693' – 7,397' (MD)	4-3/4"	Open hole	None	None

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and protected.

PRESSURE CONTROL

BOPs and choke manifold will be installed and pressure tested before drilling out under surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventors and related pressure control equipment will be pressure tested to 1,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 1,000 psi. All casing strings will be pressure tested to 0.22 psi/ft. or 1,000 psi, whichever is greater, not to exceed 70% of internal yield.

BOP to be either double gate rams or an annular preventor as per Onshore Order No. 2.

Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2M systems.

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the BLM supervised BOP test.

MUD PROGRAM

3,700' – 7,985' MD      Low solids non-dispersed  
                                  M.W. 8.5 – 9.2 ppg  
                                  Vis – 28 – 50 sec  
                                  W.L. 15cc or less

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at wellsite.

AUXILIARY EQUIPMENT

- A) A Kelly cock will be kept in the drill string at all times
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed

LOGGING, CORING, TESTING PROGRAM

- A) Logging:
- B) Coring: None
- C) Testing: None anticipated

ABNORMAL CONDITIONS

- A) Pressures: No abnormal conditions are anticipated  
Bottom hole pressure gradient – 0.31 psi/ft
- B) Temperatures: No abnormal conditions are anticipated
- C) H<sub>2</sub>S: See Hydrogen Sulfide Drilling Operations Plan if H<sub>2</sub>S is encountered.
- D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

August 6, 2005

COMPLETION

The location pad is of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8" J-55 4.7#/ft tubing will be run for a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.

# Hydrogen Sulfide Drilling Operations Plan

## I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide ( $H_2S$ ).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of  $H_2S$  detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of  $H_2S$  on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the  $H_2S$  Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable  $H_2S$  zone (within 3 days or 500 feet) and weekly  $H_2S$  and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific  $H_2S$  Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

## II. $H_2S$ Safety Equipment and Systems

Note: All  $H_2S$  safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain  $H_2S$ .

### A. Well control equipment:

1. Choke manifold with a minimum of one remote choke.
2. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

### B. Protective equipment for essential personnel:

1. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

C. H<sub>2</sub>S detection and monitoring equipment:

1. Two portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 10 ppm are reached.

D. Visual warning systems:

1. Wind direction indicators as shown on well site diagram.
2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud program:

1. The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

F. Metallurgy:

1. All drill strings, casings, tubing, wellhead, blowout preventors, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.
2. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

G. Communication:

1. Cellular telephone communications in company vehicles.

H. Well testing:

1. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.

API No. 3003926731

2050' FNL & 630' FEL (SE/NE) Unit H

Section 11 T29N - R03W

East Blanco Field, Rio Arriba County, New Mexico

Top of Coal:	3622
Bottom of Coal:	3686
KOP:	3700
At Well -	
Top of PC Target:	3717 (+3503' ss)
Bottom of Sump:	3875 MD
PC Target Kick-Off	3900 MD
Top of Lewis:	3816
At BHL -	
Proposed BHL:	660 FNL & 660 FWL
Azimuth	289
Top of PC:	3668
PC Target:	3770

Ground Elevation:	7208'		
KB Elevation:	7220" (12' KB)		
Surface Casing:	8-5/8" 24# K-55 ST&C @ 254'		
Production Casing:	5-1/2" 17# K-55 LT&C @ 4014'		
Plugback TD:	3711' (Whipstock)		
Closed	San Jose:	1260-64, 95-1301, 28-30, 1515-21 @ 2 spf (36 holes)	
Closed	Nacimiento:	2270-76, 2939-42, 44-46, 52-60 @ 2 spf (38 holes)	
	CIBP	3710' to be set for whipstock	
Open	Pictured Cliffs:	3693-3700 (Window) - 3693-7397 (Openhole Lateral)	
Completion:	2-3/8" Nipple (2" Length)	0.17	11.17
	String Float	1.10	12.27



# Black Hills Exploration & Production

**Horizontal Well Plan**  
 Jicarilla 29-03-11 #2HR  
 API: 30039267310100

**Surface Location**  
 2,050 FNL & 630 FEL Sec. 11 T29N - R03W  
 East Blanco Field, Pictured Cliffs Pool  
 Rio Arriba County, New Mexico

**Lease**  
 MDA 701-98-0013  
 Jicarilla Apache Nation

**Prognosis**  
 Fruitland Coal Top at 3622'  
 Pictured Cliffs Top at 3714'  
 Kick-off at +/-3700'  
 Bottom of Sump: 3875' MD (3805' TVD)  
 Redrill Lateral Kick-Off at 3900' MD  
 PC Target Entry Point: 3900' MD (3805' TVD)  
 PC Target End Point: 3770'  
 PC Top at Toe = 3668'  
 Constant Build From Redrill Kick-Off to Toe  
 MD of Lateral = 7985'

**BH Location**  
 660 FNL & 660 FWL Sec. 11 T29N - R03W

