FORM APPROVED

(August 1999) UNITED ST DEPARTMENT OF T	OMB No. 1004-0136 Expires November 30, 2000		
BUREAU OF LAND N		5. Lease Serial No. MDA 701-98-0013,	
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe Na JICARILLA APACHE NA	
1a. Type of Work: DRILL REENTER		7. If Unit or CA Agreement, Nan	ne and No.
lb. Type of Well: ☐ Oil Well     ☐ Oth	<del>-</del>	<b></b>	1960
2. Name of Operator Contact: BLACK HILLS GAS RESOURCES, #M@ii: BPMIBIa	10723	9. API Well No. 30-039-294	197
3a. Address 350 INDIANA STREET, SUITE 400 GOLDEN, CO 80401	3b. Phone No. (include area code) Ph: 303-820-4480 Fx: 303-820-4124	10. Field and Pool, or Explorator E BLANCO/PICTURED  12400	ČLIFFS
4. Location of Well (Report location clearly and in accorded	nce with any State requirements.*)	11. Sec., T., R., M., or Blk. and	Survey or Area
At surface NWSW 1855FSL 645FWL		Sec 13 T29N R3W Mer	NMP
At proposed prod. zone NWSW 1855FSL 645FWL		L	
<ol> <li>Distance in miles and direction from nearest town or post</li> <li>MILES FROM BLOOMFIELD, NEW MEXICO</li> </ol>		12. County or Parish RIO BLANCO	13. State NM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 5,925' FWL (LEASE LINE)	16. No. of Acres in Lease 9920.00	17. Spacing Unit dedicated to th	
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.</li> <li>2,900' FROM JICARILLA 29-03-13 2</li> </ol>	19. Proposed Depth 4000 MD	20. BLM/BIA Bond No. on file NMB000230	
21. Elevations (Show whether DF, KB, RT, GL, etc. 7065 GL	22. Approximate date work will start 04/12/2005	23. Estimated duration	
	24. Attachments		
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached to	this form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Sys SUPO shall be filed with the appropriate Forest Service Of</li> </ol>	Item 20 above).  5. Operator certification	ons unless covered by an existing be formation and/or plans as may be re	`
25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY L SCHNEEBECK Ph: 303-820-		ate 03/15/2005
Title PERMIT AGENT FOR BLACK HILLS			~
Approved by Signature)	Name (Printed/Typed) Wagne Townsen	Di	2/10/06
Title Acting AFM	Office FF0		
Application approval does not warrant or certify the applicant ho operations thereon.	lds legal or equitable title to those rights in the subject le	ease which would entitle the applica	int to conduct

Conditions of approval, if any, are attached.

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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## Additional Operator Remarks (see next page)

Electronic Submission #54918 verified by the BLM Well Information System For BLACK HILLS GAS RESOURCES, INC, sent to the Rio Puerco

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED

NMOCD

303 868 8983

298

DISTRICT I 1625 N. Prench Dr., Hobbs, N.M. 88240

DESTRUCT II 1901 V. Grand Ave., Artesia, N.M. 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Revised June 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

Certificate Number

DISTRICT IV 1220 South St. Francis Dr., Santa Pe, NM 87506

П	<b>AMENDED</b>	REPORT

		•••		COLLIO		244/11/42/				
	Number	949	<b>1</b>	*Pool Code		E Blanco	Pool Nam			
Property Co		29497 72400 E. Blanco / Pictured Cliffs  *Property Name* **Vell Number*								
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013743			······································							
	r - <u>-</u>				<sup>10</sup> Surface					
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AL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acre	9		<sup>18</sup> Joint or	Indii	** Consolidation	Code	*Order No.			
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U.S.G.L.O. 1917

2633.66' (M)

1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 June 1, 2004 For drilling and production facilities, submit to appropriate NMOCD District Office.

For downstream facilities, submit to Santa Fe

office

## Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes 🖾 No 🗌

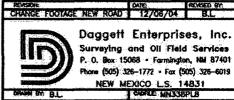
Type of action: Registration of a pit or below-grade tank 🖾 Closure of a pit or below-grade tank 🗌

Operator: Black Hills Gas Resources, Inc. T	elephone: *720-210-3100 e-mail a	ddress:		
	30-039-29497			
,		Sec 13 T 29N R 3W		
County: Rio Arriba Latitude 36° 43' 22.5" Longitude 107° 06'				
<u>Pit</u>	Below-grade tank	P. (B. 1941)		
Type:     Drilling ☑ Production ☐ Disposal ☐     Volume:    bbl Type of fluid:				
Workover				
Lined ☐ Unlined ☑ Double-walled, with leak detection? Yes ☐ If not, explain why not.				
Liner type: Synthetic Thicknessmil Clay 🖾				
Pit Volume ±17,811 bbl				
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)		
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)		
The state of the s	100 feet or more	( 0 points)		
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)		
water source, or less than 1000 feet from all other water sources.)	No	(_0 points)		
THE STREET OF THE TANK TONE HOLD THE MICH STREET	Less than 200 feet	(20 naints)		
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(20 points) (10 points)		
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet of more, that less than 1000 feet	( O points)		
		1 o pomesi		
	Ranking Score (Total Points)	1 0 points		
If this is a pit closure: (1) attach a diagram of the facility showing the pit?	s relationship to other equipment and tanks. (2) India	cate disposal location: (check the onsite box if		
your are burying in place) onsite offsite file offsite, name of facility	. (3) Attach a general	description of remedial action taken including		
remediation start date and end date. (4) Groundwater encountered: No [				
Attach soil sample results and a diagram of sample locations and excavation	ns.			
Additional Comments:				
* Local contact in New Mexico is Lynn Benelly at 505-634-1111 Ext. 27		-		
Landau Caracteria de la constanta de la consta		and the second s		
I hereby certify that the information above is true and complete to the best has been/will be constructed or closed according to NMOCD guidelin Date: 03/10/05				
Printed Name/Title Kathy L. Schneebeck / Permit Agent for Black Hills	Gas Resources, Inc. Signature	they of ischneileck		
Your certification and NMOCD approval of this application/closure does otherwise endanger public health or the environment. Nor does it relieve regulations.	not relieve the operator of liability should the conten	ts of the pit or tank contaminate ground water or		
		, , , , , , , , , , , , , , , , , , ,		
Approval:  Printed Name/Title DEPUTY OIL & GAS INSPECTOR, DIST.		FEB 1 3 2006		
Printed Name/Title DEFUTT OR & ONE HER	Signature	Date;		

## WELL PAD DIAGRAM BLACK HILLS GAS RESOURCES COMPANY: \_ JICARILLA 29-03-13 #31 LEASE: \_ 1855 FSL, 645 FWL FOOTAGE: \_\_ SEC.: 13 ELEVATION: 7065' 125' C 4.7 125' C 11.8 9 100' X 125' RESERVE PIT 25 F 4.8 LAYDOWN N 86' E ELEV. 7065' 125' C 3.1 C 0.5 125' REAR 25 461 FT. **NEW ACCESS** F 9.1 125 A' 8, 125' F 4.3 F 1.3

NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



DATE: 10/11/04

## WELL PAD CROSS-SECTIONAL DIAGRAM BLACK HILLS GAS RESOURCES COMPANY: \_\_ JICARILLA 29-03-13 #31 LEASE: \_\_ 1855 FSL, 645 FWL FOOTAGE: \_ SEC .: 13 \_\_\_\_\_, NMPM ELEVATION: 7065' NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION. ELEV. A-A' C/L 7090 7080 7070 7060 7050 7040 7030 ELEV. B-8' C/L 7090 7080 7070 7060 7050 7040 7030 ELEV. C-C' Surveying and Oil Field Services P. O. Box 15088 - Famington, NN 87401 Phone (505) 336–1772 - Fox (505) 336–6019 NEW MEXICO L.S., 14833 7090 7080 2 7070 7060 7050 7040 7030

## Black Hills Gas Resources, Inc. **Jicarilla 29-03-13 31** 1,855' FSL 645' FWL (NW/4 SW/4) Sec. 13 T29N R3W

Rio Arriba County, New Mexico Lease: MDA 701-98-0013, Tract 1

#### **DRILLING PROGRAM**

This Application for Permit to Drill (APD) was initiated under the NOS process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process includes an onsite meeting which was held on October 14, 2004, as determined by BLM, Bureau of Indian Affairs (BIA) and Jicarilla Oil & Gas Administration (JOGA), and at which time the specific concerns of Black Hills Gas Resources, Inc. (Black Hills), BLM, BIA and JOGA were discussed.

#### **SURFACE FORMATION** – San Jose

### **GROUND ELEVATION - 7,065'**

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	1,977'	Sandstone, shales & siltstones
Ojo Alamo	3,185'	Sandstone, shales & siltstones
Fruitland	3,611'	Sandstone, shales & siltstones
Pictured Cliffs	3,700'	Sandstone, shales & siltstones
Lewis	3,808'	Sandstone, shales & siltstones

TOTAL DEPTH 4,000'

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

Tertiary

San Jose	surface	Gas
Nacimiento	1,977'	Gas
Ojo Alamo	3,185'	Gas
Fruitland	3,611'	Gas
Pictured Cliffs	3,700'	Gas

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 250'	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface (±175 sxs Class B)
0' - T.D.	7-7/8"	5-1/2"	J-55 15.5# LT&C New	TD to surface (±630 sxs lite or 65:35 poz and ±270 sxs 50:50 poz)*

<sup>\*</sup> Actual cement volume to be determined by caliper log.

Yields: Class B yield =  $1.18 \text{ ft}^3/\text{sx}$ 

65:35 Poz yield =  $1.62 \text{ ft}^3/\text{sx}$ 50:50 Poz yield =  $1.26 \text{ ft}^3/\text{sx}$ 

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

0' - 250' Fresh water - M.W. 8.5 ppg, Vis 30-33
250' - TD Fresh water - 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: DIL-CNL-FDC-GR - TD - BSC (GR to surface)

Sonic (BSC to TD)

B) Coring: Non-

C) Testing: Possible DST – None anticipated. Drill stem tests may be run on shows of interest

#### 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: None anticipated

D) Estimated bottomhole pressure: 1,240 psi

#### **ANTICIPATED START DATE**

April 12, 2005

### **COMPLETION**

The location pad will be 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.

2-M SYSTEM Black Hills Gas Resources, Inc.

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS BOP PRESSURE TEST TO 1,000 PSI

