Form 3160-3 (August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0136 Expires November 30, 2000

BUKEAU U	IF LAND	MANAGE	IMEN I

5. Lease Serial No. MDA 701-98-0013,

APPLICATION FOR PERMIT TO DRILL OR REENTER		
	7. If Unit or CA Agreement, Name an	d No.
er Single Zone 🛭 Multiple Zone	8. Lease Name and Well No. JIC 29-02-18 13	420
	9. API Well No. 30-039-2948	<u>šl</u>
3b. Phone No. (include area code) Ph: 303-820-4480 Fx: 303-820-4124	10. Field and Pool, or Exploratory E BLANCO/PICTURED CLIF	FFS
nce with any State requirements.*)	11. Sec., T., R., M., or Blk. and Surve	y or Area
At surface NWNE 685FNL 2345FEL		•
	B	
	12. County or Parish RIO ARRIBA	13. State NM
16. No. of Acres in Lease	17. Spacing Unit dedicated to this well	11
9920.00	1600 NE/4	
19. Proposed Depth	20. BLM/BIA Bond No. on file	
4000 MD	NMB000230	
21. Elevations (Show whether DF, KB, RT, GL, etc. 7357 GL 22. Approximate date work will start 04/04/2005		
24. Attachments		
	er Single Zone Multiple Zone KATHY L SCHNEEBECK E-Mail: BPMIBlackHills@banko1.com 3b. Phone No. (include area code) Ph: 303-820-4480 Fx: 303-820-4124 nce with any State requirements.*) office* 16. No. of Acres in Lease 9920.00 19. Proposed Depth 4000 MD 22. Approximate date work will start 04/04/2005	The state of the s

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- 1. Well plat certified by a registered surveyor.
- A Drilling Plan.
 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
 Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY L SCHNEEBECK Ph: 303-820-4480	Date 03/01/2005
Title PERMIT AGENT FOR BLACK HILLS		
Approved by signature)	Name (Printed/Typed)	Date 1/27/06
Title A Ime AAM	Office	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
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 #54653 verified by the BLM Well Information System/ For BLACK HILLS GAS RESOURCES, sent to the Rio Puerco

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

NMOCD



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

DISTRICT II 1301 W. Grand Ave., Artesia, N.M. 88210

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

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-102 Revised June 10, 2003 Submit to Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT IV 1220 South St. Francis Dr., Santa Fe, NM 87505 ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT *Pool Code Pool Name API Number 0-039-294 E. Blanco / Pictured Cliffs 72400 Well Number Property Name Property Code JICARILLA 29-02-18 13 24245 OGRID No. *Operator Name * Elevation BLACK HILLS GAS RESOURCES 7357' 013925 10 Surface Location UL or lot no. Section Lot Idn Feet from the North/South line Feet from the East/Vest line Township Range County R 18 29-N 2-W 685 NORTH 2345 EAST RIO ARRIBA ¹¹ Bottom Hole Location If Different From Surface

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

FD. 2 1/2" BC. U.S.G.L.O. 1917	S 89-12-52 W	5099.84' (M)	FD. P & C. "LS 8894" 2345'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein to true and complete to the best of my knowledge and belief
201			(M)	
LOT 2	LAT. 36'43'49.9"N LONG. 107'05'01.3"		N 00-01	Hardy & Schnebeck Signature Kethy L. Schneebeck Printed Name Permit Agent for Black Hills Title March 1, 2005
LOT 3			FD. MARKED STONE WITH P & C. "LS 8894"	Date 18 SURVEYOR CERTIFICATION I hereby certify that the west tocation shown on this pict was plotted from field color of actual curveys made by me or under my supervision, and that the same in true and correct to the best of my deligit. Date of Bar MF.
LOT 4		. 1		Sgradury are Sky of Prospected Surveyor. (14631) Sylveyor Surveyor. (14631) Sylveyor. (14631) Sylveyor.

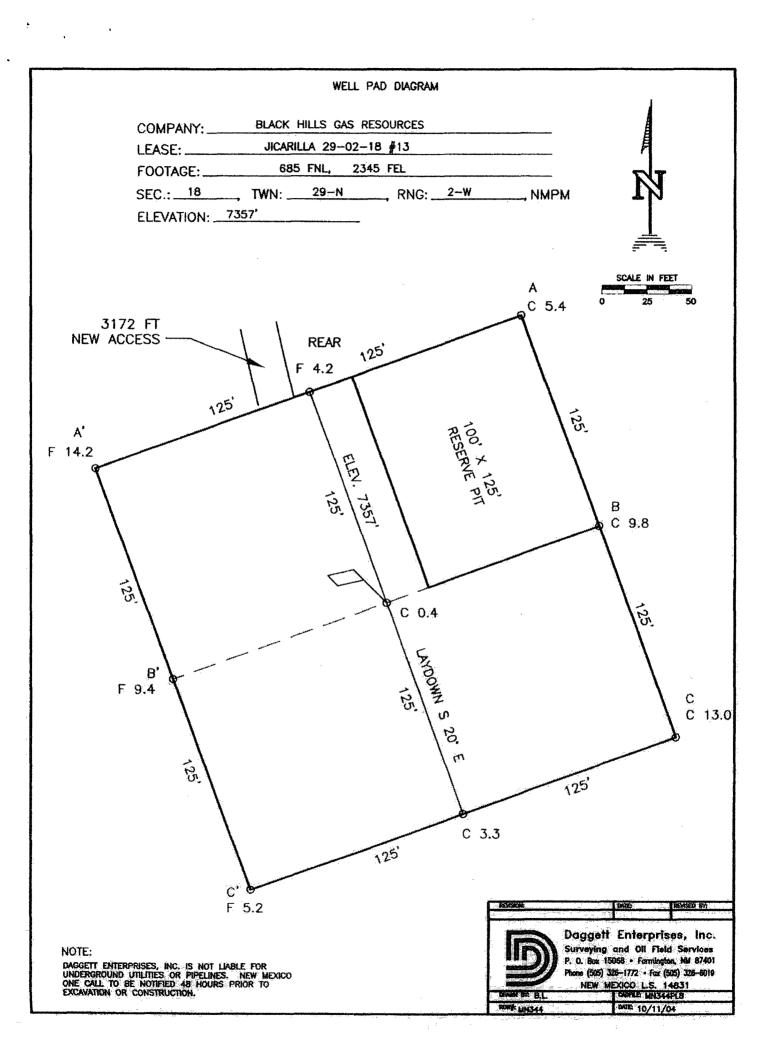
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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-gra	de tank			
Operator: Black Hills Gas Resources, Inc.	Telephone: 720-210-1300 e-mail add	ress: cmaybe@bhep.com			
Address: 300 Indiana St, Suite 400, Golden, CO 80401	30-039-29481				
Facility or well name: Jicarilla 29-02-18 13 API #: Pending U/L or Qir/Qir NW NE Sec 18 T 28N R 2W					
County: Rio Arriba Latitude 36° 43' 49.9" Longitude 107° 05' (
Pit	Below-grade tank				
Type: Drilling Production Disposal	Volume:bbi Type of fluid:				
Workover	Construction material:				
Lined Unlined 🛮	Double-walled, with leak detection? Yes [] If not	, explain why not.			
Liner type: Synthetic Thicknessnil Clay 🛛		CONTRACTOR			
Pit Volume <u>±17,811</u> 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)			
	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)			
	Less than 200 feet	(20)			
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(20 points)			
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	(10 points)			
		(O points)			
	Ranking Score (Total Points)	0 points			
If this is a pit closure: (1) attach a diagram of the facility showing the pit's					
your are burying in place) onsite 🔲 offsite 🔲 If offsite, name of facility_					
remediation start date and end date. (4) Groundwater encountered: No 🗌 3	es 🔲 If yes, show depth below ground surface	ft. and attach sample results. (5)			
Attach soil sample results and a diagram of sample locations and excavation					
Additional Comments:					
I hereby certify that the information above is true and complete to the best has been/will be constructed or closed according to NMOCD guideline. Date:03/01/05	of my knowledge and belief. I further certify that these is ⊠, a general permit □, or an (attached) alternat	e above-described pit or below-grade tank ive OCD-approved plan □.			
Printed Name/Title Kathy L. Schneebeck / Permit Agent for Black Hills C	Sas Resources, Inc. Signature	4 Lahabak			
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve the regulations.	of relieve the operator of liability should the contents.	if the nit or tank contaminate argued water or			
Approval: OFFUTY OR & GAS INSPECTOR, DIST. 43	1.41_	JAN 3 0 2006			
Printed Name/Title	Signature	Dite:			



WELL PAD CROSS-SECTIONAL DIAGRAM

COMPANY: ______BLACK HILLS GAS RESOURCES

LEASE: ______JICARILLA 29-02-18 #13

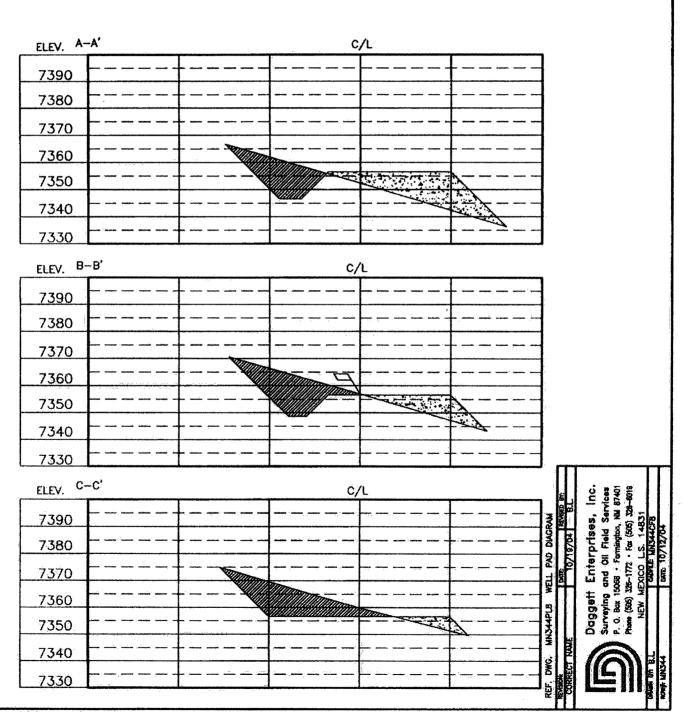
FOOTAGE: _______685 FNL, 2345 FEL

SEC.: _____18 _____, TWN: _________, RNG: _________, NMPM

ELEVATION: 7357'

NOTE:

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



Black Hills Gas Resources, Inc. **Jicarilla 29-02-18 13** 585' FNL 2.345' FEL (NW/4 NE/4

685' FNL 2,345' FEL (NW/4 NE/4) Sec. 18 T29N R2W

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 12, 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 - 7,357'

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)*

^{*} 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 EOUIPMENT

- 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: None

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) H₂S: None anticipated

D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

April 4, 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

