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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.

FORM APPROVED OMB No. 1004-0135 Expires: January 31, 2004

5. Lease Serial No.	,
Contract 464	
6 If Indian Allottes as 7	Ceiba Massa

		<u>"2000"</u>	<u> </u>	1 ЛсанДа Арасі	ne
SUBMIT IN TR	RIPLICATE - Other instruc	ctions on reverse	side RECEIVE		Agreement, Name and/or No.
1. Type of Well	_	2	70 FARMINGT	Lu ara	
Oil Well Gas Well	Other		JIU FARMINGI	8. Well Name a	
2. Name of Operator	Contacts I com II Donalle	1,50 45 3,50 2,50 2,50 2,50 2,50 2,50 2,50 2,50 3,50 3,50 3,50 3,50 3,50 3,50 3,50 3		Jicarilla 464-3	
Black Hills Gas Resources, Inc. 3a. Address	Contact: Lynn H. Benally	3b. Phone No. (include	area code)	9. API Well No	
		,	area couej	30-039-27731 10 Field and Po	ol, or Exploratory Area
3200 N 1st Street PO Box 249 B 4. Location of Well (Footage, Sec.,		505-634-1111 ext 27		E. Blanco/Pio	•
Surface: 660' FNL 1,050' FWL 1	NE/NW Unit C Sec. 31 T30N R			11. County or Pa	
Bottom Hole: 660' FNL 50' FEL	, NE/NE Unit A Sec. 31 T30N R	3W			
				Rio Arriba, N	
	PROPRIATE BOX(ES) TO			EPORT, OR O	THER DATA
TYPE OF SUBMISSION	`	TYI	PE OF ACTION	'	
1	Acidize	Deepen	Production (Start	/Resume)	Water Shut-Off
Notice of Intent	Alter Casing	Fracture Treat	Reclamation		Well Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete	$\overline{\mathbf{Q}}$	Other Convert Vertical
	Change Plans	Plug and Abandon	Temporarily Aba	andon	well to Horizontal well
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal		
testing has been completed. Fin determined that the site is ready The initial APD to drill a Pictured submitted and approved on July 2 KOP, Nevis plan, and the casing plans to pull 500 ft of exis drilling program and Nevis Report	d Cliff (PC) well was approved 25, 2007 to re-enter the well and program, which are appended. sting 5 1/2 production casing and t.	iled only after all require on May 7, 2004. The vocantities on the convert it to a horizont	ments, including reclar well was given API ral. Modifications we	nation, have been number 30-039-2 re made and the	completed, and the operator has 7731. A sundry was changes are reflected to the
		CONDITIONS Adhere to previous	OF APPROVA sity issued stipulation	L s.	
14. 1 hereby certify that the foregoin Name (PrintedlTyped)	g is true and correct				
Lynn H. Benally		Title Regu	latory Specialist		
Signature Musey)	Date	1 30,20	90 F	
	THIS SPACE FO	R FEDERAL OR ST	ACT IN THE PLANT OF SERVICE SAFER		the control of the state of the
Approved by (Signature)	Your love		ued/Type	ns end Titl	· P.E.
Conditions of approval, if any, are certify that the applicant holds legs which would entitle the applicant to contain the containing the con	For equitable title to those rights	does not warrant or in the subject lease	ice FFO		Date 8/1/07

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.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this

form and the number of copies to be submitted, particularly with regallocal area, or regional procedures and practices, either are shown below will be issued by, or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

. . .

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present

productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3 and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c); and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) requires us to inform you that:

This information is being collected to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0135), Bureau Clearance Officer, (WO-630), Mail Stop 401 LS, 1849 C St., N.W., Washington, D.C. 20240.



Black Hills Gas Resources (BHGR)

Jicarilla 464-31 #11

Surface Location: 660' FNL 1050' FWL NE/NW Unit C Bottom Hole Location: ±660' FNL ±50' FEL NE/NE Unit A

> Sec. 31 T30N R3W Rio Arriba County, New Mexico Jicarilla Contract 464

DRILLING PROGRAM (Per Rule 320)

The 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 APD process includes an onsite meeting as determined by Bureau of Land Management (BLM) and the Jicarilla Nation.

The APD for this well was permitted and approved on May 7, 2004. This new drilling plan addresses the horizontal re-entry into the existing Jicarilla 464-31 #11 well.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 7,138'

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

San Jose	Surface	Sandstone, shales & siltstones
Ojo Alamo	2,026'	Sandstone, shales & siltstones
Kirtland	3,307'	Sandstone, shales & siltstones
Fruitland	3,590'	Sandstone, shales & siltstones
Pictured Cliffs	3,644'	Sandstone, shales & siltstones
TOTAL DEPTH	3,820'	TVD

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

San Jose	surface	Gas	
Ojo Alamo	2,026	Gas	
Kirtland	3,307	Gas	
Fruitland	3,590°	Gas	
Pictured Cliffs	3.644	Gas	

HORIZONTAL DRILLING PROGRAM Kick Off Point (KOP) is estimated to be ± 300' TVD

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0-278' TVD	11"	8 5/8"	Existing Casing J-55 24#	Cemented to surface
278' - ±3805' TVD	7-7/8	5-1/2 "	J-55 15.5# ST&C New	TD to surface (Lead: ± 375 sxs lite standard cement. Tail: 500 sxs 50:50 poz containing 0.25 lb/sx LCM) * **
±3750' TVD- End of Lateral Bore	4-3/4"	Open Hole		Open Hole

- * Actual cement volume to be determined by caliper log.
- ** Cement will be circulated to surface

Yields:

Surface: Standard cement yield = $1.2 \text{ ft}^3/\text{sx}$ (mixed at 15.6 lb/gal)

Production: Lite Standard Cement yield: = 1.59 ft³/sx (mixed at 13.4 lb/gal)

 $50.50 \text{ poz yield} = 1.27 \text{ ft}^3/\text{sx} \text{ (mixed at 14.15 lb/gal)}$

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 conditions. 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' - TD' Clean Faze - 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 well site.

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:

None

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) H_2S :

See attached H₂S plan in event H₂S is encountered.

D) Estimated bottomhole pressure: 1,184 psi

ANTICIPATED START DATE

August 1, 2007

COMPLETION

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

Black Hills Gas Resources

July 13, 2007 REV 7-31-2007 (2)

Jicarilla 464 – 31 #11

API # 30-039-27731

660' FNL & 1050' FWL, Section 31, T30N, R03W

Rio Arriba County, New Mexico GL: 7138', KB: 7151', PBTD: 3838'

Surface casing:

8.625", 24.0 lb/ft, Casing at 278'; TOC at surface

Production casing:

5.5", 15.5 lb/ft, K-55, Casing at 3883'; Completion Report/

CBL shows good bond at 530' and fair bond at 250'

Current prod tubing:

2.375" 116 jts, 4.7#, J-55 tubing at 3684' with Arrow set

packer at 3734'.

Current pump/ rods:

N/A

Current Perforated Zones:

Pictured Cliffs:

3820' - 3840'

Fruitland Coal:

3756' - 3766'

Ojo Alamo:

3292' - 3340'

Nacimiento:

2278' - 3055' SQUEEZED

Formation Tops:

Nacimiento:

2076

Oio Alamo:

3289'

Kirtland:

3519

Fruitland:

3727

Pictured Cliffs:

3819

PLUG BACK PROCDURE: Plan to plug back the well for use as re-entry.

All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Type III, mixed at 14.8 ppg with a 1.32 cf/sx yield.

- 1. This project will use a lined reserve pit for holding waste fluids.
- 2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Black Hills safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line and blow down well; kill with water as necessary. ND wellhead and NU BOP. Test BOP.
- 3. PU on tubing and release packer. TOH and tally 116 joints 4.7#, J-55 2.375" tubing, 3684' and LD packer. Visually inspect tubing and if necessary LD and PU workstring. Round trip 5.5" gauge ring or casing scraper to 3706'. (Note: run gauge ring/scraper due to CR going through Ojo Alamo perforations).

- 4. Plug #1 (Pictured Cliffs perforations and Fruitland Coal perforations and Kirtland tops, 3840' 3420'): Note: S. Mason, BLM, approved setting CR at 3706', 7/18/07). TIH and set a 5.5" CR at 3706'. Pressure test tubing to 1000#. Mix 57 sxs Type III cement, squeeze 28 sxs (37 cu ft) below CR (100% excess) to fill Pictured Cliffs and Fruitland Coal perforations and leave 29 sxs (38.3 cu ft) above CR to cover the Fruitland and Kirtland tops. TOH with tubing.
- 5. Plug #2 (Ojo Alamo perforations and top, 3340' 3142'): Round trip 5.5" gauge ring or casing scraper to 3242' or as deep as possible. RIH and set a 5.5" CR at 3242'. Load casing with water and circulate well clean. Pressure test casing to 500#. If casing does not test, spot or tag subsequent plugs as appropriate. Mix 20 sxs (26.4 cu ft) cement under the retainer and spot a 10 sxs (13.2 cu ft) plug above the CR to isolate the Ojo Alamo formation top. TOH with tubing.
- 6. Plug #3 (2126'- 1976'): Mix 16 sxs (21.2 cu ft) cement and spot a balanced plug inside the casing to isolate the Nacimiento formation top. TOH. LD tubing.
- 7. Connect the pump line to the bradenhead valve. Load the bradenhead annulus with water, note volume to fill, and then attempt to pressure test the BH annulus to 500 PSI. If the BH annulus took a volume to fill, then calculate the BH annulus top of cement.
- 8. ND the BOP and tubing head. Weld a slip on collar on the 5.5" casing stub and pick up on the 5.5" casing to attempt to remove the wellhead slips. Note: use a <u>5.5" 11.6#, N-80 LTC slip on collar</u> and an N-80 (or L-80) pick up joint. If the slips are free then determine the free point by stretch calculation.

Notify engineering with the results of step # 8.

- 9. MIRU Wireline Specialties and run a free point in the 5.5" casing. Then chemical cut the 5.5" casing as deep as possible. Pull and LD any casing cut. Spot a cement plug at the top of the cut-off casing. This cement plug will extend into the top of the cut-off 5 ½" casing +/- 20 ft and +/- 100 ft above the cut off point.
- Install a steel plate cover on the casing head. RD and move off location.

If the casing cannot be pulled, the drilling rig will move in and will wash-over the 5 ½" casing to KOP. Prior to drilling the side track hole a cement plug will be placed at the top of the cut-off casing. This cement plug will extend into the top of the cut-off 5 ½" casing +/- 29 ft and +/- 100 ft above the cut off point.

Jicarilla 464-31 #11

Proposed Wellbore Diagram

API # 30-039-27731

UNIT A NE NE, Sec31, T30N, R03W Rio Arriba, NM

7/31/2007

Elev. GL= 7138' Elev. KB= 7150'

SURF CSG 8 5/8" 24# J-55 @266' KB, TOC surf Plug #3 🦓 🦠 2126-1976' Nacimiento perfs: 11-20-2004; 2278-2280, 2286-2288, 2389-2391, 2396-2398, 2577-2579, 2784-2788. BD HCI, Frac 50% N2 XL foam w/ 46260# 20/40 + 14960# 20/40 SLC. SQ 12-08-04 & 12-15-04 Nacimiento perfs: 11-14-2004; 2934-2936, 2951-2953, 2956-2958, 2962-2964, 2980-2982, 2986-2988, 2992-2994, 2998-3000, 3022-3024, 3026-3028, 3053-3055. BD HCI, Frac 50% N2 XL foam w/ 56000# 20/40 + 1000 # SLC SQ 1-06-04 Cement Retainer @ 3242' Ojo Alamo perfs: 11-9-2004; 3292-3300, 3304-3312, 3328-3330, 3338-3340, BD HCI, Frac50% N2 XL foam w/75000# 20/40. **PROD CASING** Cement Retainer @ 3706' 5 1/2" 15.5# K-55 @ Fruitland Coal perfs: 8-13-04; 3756-3766 BD HCI, N2 only Plug #1 3872' pump 920 sx 3840-3420 lightweight, circ 37 bbl to pit. Pictured Cliffs perfs: 8-13-04; 3820-3840' BD HCl, Frac N2 XL foam w/ 95900 # 20/40. PBTD=3862' TD = 3885'