

RCVD AUG 27 '14

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OIL CONS. DIV.

DIST. 3

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 14 2014

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		4. Lease, Serial No. Jicarilla Contract 459
2. Name of Operator Black Hills Gas Resources, Inc.		6. If Indian, Allottee, or Tribe Name Jicarilla Apache Tribe
3a. Address P.O. Box 249, Bloomfield, NM 87413	3b. Phone No. (include area code) (505) 634-5104	7. If Unit or CA. Agreement Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 330' FNL & 1090' FEL NE/NE Section 18 T30N R3W (UL: A)		8. Well Name and No. Jicarilla 459-18 #15
		9. API Well No. 30-039-27777
		10. Field and Pool, or Exploratory Area WC Basin Mancos
		11. County or Parish, State Rio Arriba County, New Mexico

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 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 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 Notice shall be filed only after all requirements, including reclamentation, have been completed, and the operator has determined that the site is ready for final inspection.)

Jicarilla 459-18 #15

Per the Notice of Intent dated July 16, 2014, to plug and abandon ~~Many Canyons 29-04-26 #133~~, Black Hills Gas Resources is submitting the attached plug and abandon procedure.

BHGR will be using a closed loop system.

Notify NMOCD 24 hrs
prior to beginning
operations

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



H₂S POTENTIAL EXIST

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

Daniel Manus

Regulatory Technician

Title

Signature

Daniel Manus

Date

August 14, 2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy Salvors

Title

Petroleum Eng.

Date

8/25/2014

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

FFO

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

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PLUG AND ABANDONMENT PROCEDURE

August 13, 2014

Jicarilla 459-18 #15

WC Basin Mancos

Surface 330' FNL, 1090' FEL, Section 18, T30N, R3W, Rio Arriba County, NM

API 30-039-27777 / 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 _____, No X, Unknown _____.
 Tubing: Yes X, No _____, Unknown _____, Size 2-3/8", Length 7409.38'.
 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 4.5" casing scraper to 7328' or as deep as possible.
3. **Plug #1 (Mancos perforations, 7328' – 7228')**: TIH and set 4.5" CR or hydroset CIBP at 7328'. Pressure test tubing to 1000#. Mix 16 sxs Class B cement (Note: excess due to corroded casing above Plug #1) and spot a plug above CR or CIBP, inside the casing, to cover the Mancos perforations. PUH and WOC. TIH and tag cement, if necessary top off cement as appropriate. TOH.
4. **Plug #2 (Mancos top, 6567' – 6467')**: TIH and set 4.5" CR or hydroset CIBP at 6567'.
Pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 12 sxs Class B cement and spot a balanced plug above CR or CIBP, inside the casing, to cover the Mancos top. PUH.

See COA
5. **Plug #3 (Mesaverde and Chacra tops, 5668' – 4933')**: Mix 60 sxs Class B cement and spot a balanced plug inside the casing to cover through the Chacra top. PUH and WOC. TIH and tag TOC, if necessary top off cement as appropriate.

See COA
6. **Plug #4 (7" shoe, 4.5" liner top, Pictured Cliffs and Fruitland tops, 3913' – 3527')**: Perforate squeeze holes at 3913'. Attempt to establish rate. TIH and set CR at 3863'. Mix and pump 89 sxs Class B cement, squeeze 19 sxs outside 4.5" casing and leave 70 sxs inside casing to cover through the Fruitland top. PUH.
7. **Plug #5 (Kirtland and Ojo Alamo tops, 3380' – 3027')**: Mix 76 sxs Class B cement and spot a balanced plug inside the casing to cover Kirtland and Ojo Alamo tops. PUH.
8. **Plug #6 (Nacimiento top, 1970' – 1870')**: Mix 29 sxs Class B cement and spot a balanced plug inside the casing to cover Nacimiento top. PUH.

9. **Plug #7 (Surface, 319' - Surface):** Perforate 3 HSC holes at 319'. Mix and pump approximately 120 sxs cement down the 7" casing until good cement returns out annuli and bradenhead. Shut in well and WOC.
10. 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.

8/13/2014

Jicarilla 459-18 #15
PROPOSED P&A
API # 30-039-27777
NE NE, Sec 18, T30N, R03W Rio Arriba, NM
Spud Date 7/11/05

Spud: 7/11/05
Compl: 10/11/05

Elev. GL= 7025'
Elev. KB= 7038'

12 1/4" hole

Surface Csg

9 5/8" 36# J-55 @ 269'.
Cmt 165 sx. Circ 16.5 bbls to pit.

Plug #7: 319' - 0'
Class B cement, 120 sxs

Perforate @ 319'

8 3/4" hole

Nacimiento 1920'

Plug #6: 1970' - 1870'
Class B cement, 29 sxs

Ojo Alamo 3077'

Kirtland 3330'

Plug #5: 3380' - 3027'
Class B cement, 76 sxs

Fruitland 3577'

Pict Cliffs 3644'

See COA

Plug #4: 3913' - 3527'
Class B cement, 89 sxs:
19 outside and 70 inside

Intermediate Csg

7", 23#, L-80 @ 3863'. Cmt 390 sx. Top of cmt at 740' (CBL-9/3/05)

Top of liner 3761'

Set CR @ 3863'

Perforate @ 3913'

6 1/4" hole

KOP for sidetrack @ 4060'

TOC orig hole 4060' (KOP)

Top of cmt 4 1/2" csg @ 4300' (CBL 9/3/05)

See COA

Chacra interval 4983'-5146'

Plug #3: 5668' - 4933'
Class B cement, 60 sxs

Mesa Verde 5618'

Plug #2: 6567' - 6467'
Class B cement, 12 sxs

Mancos 6517'

Plug #1: 7328' - 7228'
Class B cement, 16 sxs

Set CR @ 6567' (for plug #2)

Corroded 4 1/2" csg from 6620' to 7060'.

Set CR @ 7328' (for plug #1)

Mancos perms: 7378-7384, 7420-7426, 7460-7466, 7490-7500'.

Cmt plugs Orig Hole:

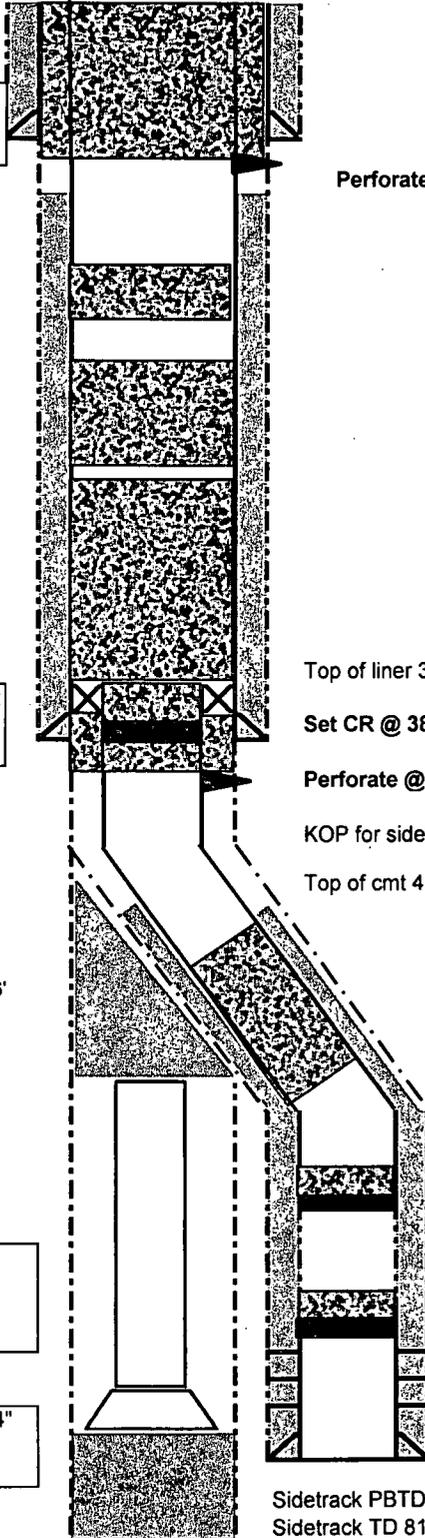
Top of cmt at 4060'
Plug #1 @ 4665', 118 cf
Plug #2 @ 4649', 171 cf
Plug #3 @ 4525', 171 cf

Fish Orig Hole:

3 1/2" DP, 4 3/4" DC's, 6 1/4" bit. Top of fish @ 4665'.
Bottom of fish @ 7962'.

Prod Liner (Sidetrack hole)

4 1/2", 11.6#, J-55 liner from 3761' to 8167'.
Cmt 365 sx. Top of cmt at 4300' (CBL-9/3/05)



Sidetrack PBT 8125'
Sidetrack TD 8167'

Orig Hole TD 8334'

8/13/2014

Jicarilla 459-18 #15
CURRENT Wellbore Diagram
 API # 30-039-27777
 NE NE, Sec 18, T30N, R03W Rio Arriba, NM
 Spud Date 7/11/05

Spud: 7/11/05
 Compl: 10/11/05

Elev. GL= 7025'
 Elev. KB= 7038'

Tubing Detail - 8/19/06

KB	11
235 jts 2 3/8" tbg	7394.14
1.78" R profile	0.9
2' pup	2.01
WLREG	0.43
EOT	7409.38

12 1/4" hole

Surface Csg

9 5/8" 36# J-55 @ 269'.
 Cmt 165 sx. Circ 16.5 bbls
 to pit.

8 3/4" hole

Nacimiento 1920'

Ojo Alamo 3077'

Kirtland 3330'

Fruitland 3577'

Pict Cliffs 3644'

Lewis 3758'

Intermediate Csg

7", 23#, L-80 @ 3863'. Cmt
 390 sx. Top of cmt at 740'
 (CBL-9/3/05)

6 1/4" hole

TOC orig hole 4060' (KOP)

KOP for sidetrack @ 4060'

Top of cmt 4 1/2" csg @ 4300' (CBL 9/3/05)

Chacra interval 4983'-5146'

Mesa Verde 5618'

Mancos 6517'

Cmt plugs Orig Hole:

Top of cmt at 4060'
 Plug #1 @ 4665', 118 cf
 Plug #2 @ 4649', 171 cf
 Plug #3 @ 4525', 171 cf

Fish Orig Hole:

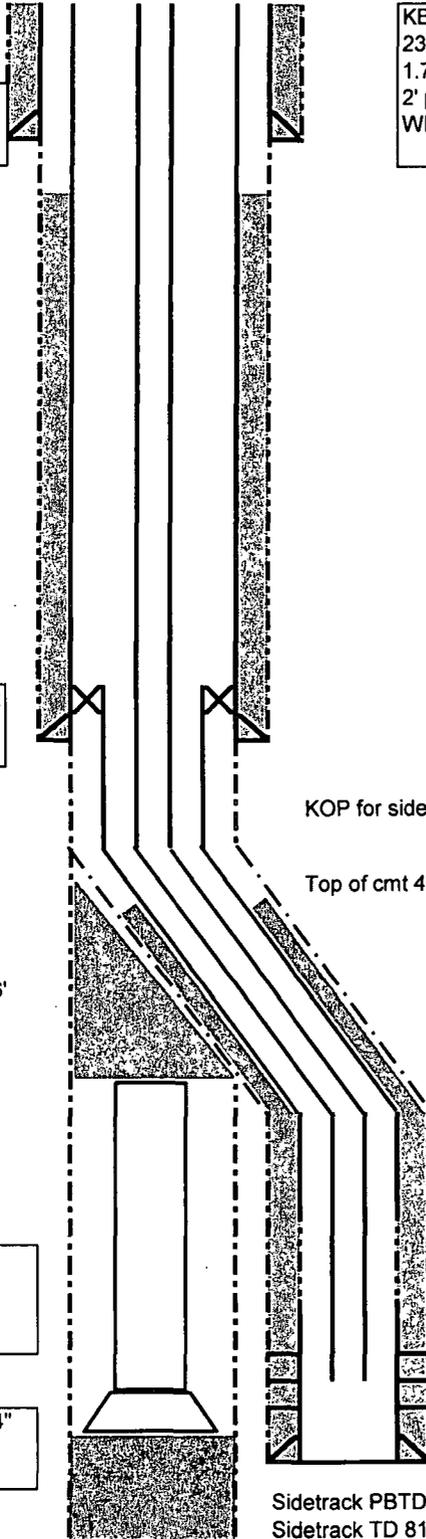
3 1/2" DP, 4 3/4" DC's, 6 1/4"
 bit. Top of fish @ 4665'.
 Bottom of fish @ 7962'.

Corroded 4 1/2" csg from 6620' to 7060'.

Mancos perms: 7378-7384, 7420-7426,
 7460-7466, 7490-7500'.

Prod Liner (Sidetrack hole)

4 1/2", 11.6#, J-55 liner from 3761' to 8167'.
 Cmt 365 sx. Top of cmt at 4300' (CBL-
 9/3/05)



Orig Hole TD 8334'

Sidetrack PBTD 8125'
 Sidetrack TD 8167'

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 459-18 #15

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) Bring the top of plug #3 to 4626 ft. to cover the Mesaverde and Chacra tops. Adjust cement volume accordingly.
 - b) Bring the top of plug #4 to 3477 ft. to cover the 7" shoe, 4.5" liner top, Pictured Cliffs and Fruitland tops. Adjust cement volume accordingly.

Note: High to very high concentrations of H₂S (135ppm-3000 ppm GSV) have been reported in several wells which produce gas from the San Jose, Nacimiento and Ojo Alamo formations within a 1 mile radius of this location. It is imperative that H₂S 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.