

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 20045. Lease Serial No.
Jicarilla Contract 4601a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

Jicarilla Apache Tribe

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.

Jicarilla 460-15 No. 2

9. API Well No.

30-039-27850

10. Field and Pool, or Exploratory
Cabresto Canyon, Tertiary11. Sec., T., R., M., on Block and Survey
or Area Sec. 15, T30N-R03W

12. County or Parish

Rio Arriba

13. State

NM

17. Elevations (DF, RKB, RT, GL)*

7291' KB, 7290' DF, 7278' GL

2. Name of Operator

Black Hills Gas Resources, Inc

3. Address

350 Indiana Street, Suite 400 Golden, CO 80401

3a. Phone No. (include area code)

720-210-1308

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface 515' FNL & 655' FWL (NWNW) Unit D.

At top prod. interval reported below 515' FNL & 655' FWL (NWNW) Unit D

At total depth 515' FNL & 655' FWL (NWNW) Unit D

14. Date Spudded

8/22/2004

15. Date T.D. Reached

8/26/2004

16. Date Completed

☐ D & A☒ Ready to Prod.

11/7/05

18. Total Depth: MD 3900'
TVD19. Plug Back T.D.: MD 3867'
TVD20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

SDL/DSN, HRI

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12 1/4"	8 5/8"	24	0'	280'		175 & A		surface;	
								circ 4bbls	
								to surface	
7 7/8"	5 1/2"	17	0'	3886'		600		surface;	
								circ 0bbls	
								to surface	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8"	3790'							

25. Producing Intervals

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Ojo Alamo	3588	3592	3588-3592	2	8	
B)			3250-52,56-58,62-64,72-74,78-80,	2	28	3286-3288
C) Nacimiento	2758	3070	2758-62,67-69,3026-28,49-51,62-	2	28	64,3068-70
D) San Jose	1662	1680	1662-68,71-73,76-80	4	48	

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
3250-3295	Acidize w/ 700 gal of 3% HCl. Frac: 70Q Lightning 17, 31,000 16/30 brown & 69,340 16/30 sb excel sand. 1,043.3 mscf N2.
3250-3288	cement squeezed, displaced 19.5 bbls fluid.
2758-3070	Acidize w/700gal 3%HCl.
1662-1680	Acidize w/600gal 3%HCl, 480,000 scf/N2. Frac: 60Q Lightning 20, 24,060# 16/30 sb excel sand. 840 scf N2.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
	12/30/04	24	<input type="checkbox"/>		110				Flowing
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>					Waiting on Pipeline	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg. Press. Flwg. SI	Call Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

(See instructions and spaces for additional data on next page)

NM000

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2 2005

2005 FEB 14 AM 10 45
RECEIVED
070 FARMINGTON NM
ACCEPTED FOR RECORD

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

29. Disposition of Gas (Sold used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				San Jose	surface
				Nacimiento	2170'
				Ojo Alamo	3250'
				Kirtland	3480'
				Fruitland	3691'
				Pictured Cliffs	3791'

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

- ☒ 1 Electrical/Mechanical Logs (1 full set req'd.)
 ☐ 2 Geologic Report
 ☐ 3 DST Report
 ☐ 4 Directional Survey
☐ 5 Sundry Notice for plugging and cement verification
☐ 6 Core Analysis
☐ 7 Other: _____

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Allison Newcomb

Title Engineering Technician

Signature

Allison Newcomb

Date 2/8/2005

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.