Form 3160-4
(September 2001)

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, 2004

5. Lease Serial No.
Jicarilla Contract 459

1a. Type of Well ☐ Oil Well ☑ Gas Well ☐ Dry Other
b. Type of Completion: ☐ New Well ☑ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

2004 NOV 12 PM 2 32

RECEIVED
070 FARMINGTON NM

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Tribe

7. Unit or CA Agreement Name and No.
22862

2. Name of Operator
Black Hills Gas Resources, Inc

8. Lease Name and Well No.
Jicarilla 459-20 No. 7

3. Address
350 Indiana Street, Suite 400 Golden, CO 80401

3a. Phone No. *(include area code)*
720-210-1308

9. API Well No.
30-039-25786

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

At surface 1535' FNL & 2255' FEL (SWNE) Unit G

At top prod. interval reported below 1535' FNL & 2255' FEL (SWNE) Unit G

At total depth 1535' FNL & 2255' FEL (SWNE) Unit G

10. Field and Pool, or Exploratory
East Blanco, Pictured Cliffs

11. Sec., T., R., M., on Block and Survey or Area
Sec. 20, T30N-R03W

12. County or Parish
Rio Arriba

13. State
NM

DEC 2004
OIL CONS. DIV.
DIST. 3

14. Date Spudded
3/16/1998

15. Date T.D. Reached
3/23/1998

16. Date Completed
☐ D&A ☑ Ready to Prod.
10/19/2004

17. Elevations (DF, RKB, RT, GL)*
7239' GL

18. Total Depth: MD
TVD 4070'

19. Plug Back T.D.: MD
TVD 4021'

20. Depth Bridge Plug Set: MD
TVD

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

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 Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12 1/4"	8 5/8"	24	0	507'		300 & "B"		surface;	
								circ 93sx	
								to surface	
7 7/8"	5 1/2"	15.5	0	4065'		607 sx		surface;	
								circ 52sx	
								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"	3859.66' KB	3363.2'						

25. Producing Intervals / 26. Perforation Record

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Pictured Cliffs	3777	3830	3777-3782, 3787-3795,	2 jspf		
B)			3809-3813, 3830-3840			
C)						
D)						

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

Depth Interval	Amount and Type of Material
3777-3840	PUMP 70Q FOAM PAD OF 107 BBLS @ 25 BPM X 2000 PSI. 1ST STAGE OF 70Q FOAM W/ 1 PPG SAND CONC=PUMP 59 OUT OF 82 BBLS
	SLURRY. 70Q FOAM FLUSH OF 35 BBLS @ 25 BPM.70Q FOAM PAD TO 4100 PSI-208 BBLS @ X 23.2 BPM. SLURRY RATE TO 2 PPG OF
	70Q FOAM (186 BBLS) @ 24.2 BPM @ 4850 PSI. STAGE 3. 3 PPG AF 68Q FOAM OF 124 BBLS X 21.4 BPM. GO TO STAGE 4- 4 PPG OF
	65Q FOAM OF 124 BBLS X 21.4 BPM. GO TO FLUSH OF 65Q FOAM, 23 BBLS. @ 28.1 BPM @ 5000#. PUMPED 100,000# SAND TOTAL

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
10/15/04	10/19/04	24	☐		810				Flowing
Choke Size	**Tbg. Press. Flgw. SI**	**Csg. Press**	**24 Hr. Rate**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas: Oil Ratio**	**Well Status**	
1/2"			☐					Producing	

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
			☐						
Choke Size	**Tbg. Press. Flwg. SI**	**Call Press**	**24 Hr. Rate**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas: Oil Ratio**	**Well Status**	
			☐				NMOCD		

ACCEPTED FOR RECORD
DEC 10 2004

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

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

Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

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

Choke Size	Thg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

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
				Ojo Alamo	3246'
				Kirtland	3480'
				Fruitland	3669'
				Pictured Cliffs	3776'
				Lewis	3860'

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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 11/8/2004

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.