At tag prod. Interval reported below 1975 FNL & 2070 FWL, Unit F 2.00 M 2 No. 1970 FNL &											•						45	
WELL COMPLETION OR RECOMPLETION REPORT AND LOG  1. Type of Yord:													FORM APPROVED					
WELL COMPLETION OR RECOMPLETION REPORT AND LOG  1. Type of Yord:	(April 2004) DEPARTMENT OF THE INTERIOR												OMB NO. 1004-0137					
WELL COMPLETION OR RECOMPLETION REPORT AND LOC    1.   Expert of Computing   Color   C	BUREAU OF LAND MANAGEMENT												Express Materials 2007					
1. Type of Week	WELL COMPLETION OR RECOMPLETION REPORT AND LOG												5. LEAS	E DESIGN	ATION AND	SERIAL	. NO.	
Type   Completion   No.   Dots   Do														Jicari	illa Contra	ct 462	Z Z	
Type   Completion   No.   Dots   Do	la. Type of Well	Oil We	ı X	Gas Well		Dry		Other	5070	N1011	r) r	::5   2	6. CINDIA	N ALLOT	TEE OR TRIE	E NAM	IE .	
1.		etion <b>V</b>	لسا		orkover	Г	7 <sub>Dece</sub>	ven l	Plug Bacl	րյան			11	licari	ila Anacha	Trib		
2.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	A		···الـــا		<u> </u>				1	لسبا		7. UNIT			1110		
Black Hills   Gas Resources, Inc.			Otl	her						i s		1						
Second   S				_		'			Ų.	$  J  _{\mathbb{R}^2}I$			8. FARM	OR LEAS	SE NAME			
3. Address  F.O. Biox 249, Bloomfield, NM 87413  4. Location of Well (Player) Incomes (seely and in a covolation vall Private Production of Well (Player) Incomes (seely and in a covolation vall Private Pri	Black	t Hills Gas Rest	ources,	inc.								- 1		Jicar	illa 462-22	#722		
1975 FNL & 2970 FWL, Unit F   1975 FNL & 2970 FNL & 2970 FWL, Unit F   1975 FNL & 2970 FNL & 29	3. Address					······································		3a.	Phone No. (inc	lude area	code)		9. APIW					
1975 FNL & 2070 FWI, Unit F   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI, Unit F   20 FM   1975 FNL & 2070 FWI   19	P.O Box 249, Bloomfield, NM 87413 505 634-1111 30-039-2988900 S I														eı			
1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FW   1975 FNL & 2976 FWL, Dail F   2,076 FWL, RICH REP   1,076 FWL, RICH REP	4. Location of Wel																	
Comparison   Com	At surface	ACCRETION A ACCRETION TO A ACCRETION OF THE PROPERTY OF THE PR																
At that all epith   St.   Date   Life   St.	1975' FNL & 2070' FWL, Unit F 11. SEC. T. R. M., OR BLOCK AND SURVEY																	
At that all epith   State   Production   Production   State   Production   Preference   Production	At top prod. Interval reported below  OR AREA Sec, 22, T30N,R3W																	
18   Date Speeded   15   Date 1.01   Reached   16   Date Competed   17   ELEVATIONS IDF RER. N.T. Cit. Res.   17   Cit.   18	<b>▼</b>																	
18. Jul-106																		
18. Total Depth: MD																		
21.   Type Electric & other Logs Run (Submit a copy of each)   Type													2'					
Type   Electric & other Logs Rum (Submit a copy of each)   CAMMA RAY, DENSITY, NEUTRON, INDUCTION, CBL   22. Wis well cored?   No.	MD 6347 - MD																	
Casing and Liner Record (Report all strings set in well)							TVD	<u> </u>						TVD	<u> </u>			
23. Casing and Liner Record (Report all strings set in well) Hole Size Size Grade W. (s/n.) Top (MD) Bottom/MD) Stage Cementer Depth No. of Six. A Type of Cement Top* Amount Pulled Cement 12 1/4" 9 5/8", 1-55 36/8 Surf 3920' 105 Type G Poz 1175 cut ft Surf 0 - 8 3/4" 7", N-80 2-38 Surf 3920' 700 Type G Poz 1175 cut ft Surf 0 - 6 1/4" 4 1/2", P-110 11.6# 3702' 8349' 430 sx Dk Lite 765 cu ft 3702' 0 - 6 1/4" 4 1/2", P-110 11.6# 3702' 8349' 430 sx Dk Lite 765 cu ft 3702' 0 - 2 3/8" 7187' N/A 50 2- 2 3/8" 7187' N/A 50 2- 2 3/8" 7187' N/A 50 5/8" N/A 5/8" 7187' N/A 5/8" N/A 5/8" 7187' N/A 5/8" N	ا البنية البنية البنية المسال													it analysis)				
22. Casing and Liner Record (Report all strings set in well)  Hole Size Size Grade Wt. (##h.) Top (MD) Bottom(MD) Stage Cementer Depth No. of Six. & Type of Concent  12 1/4" 9 5/8", 3-55 36# Surf 333" 165 Type G 195 cu ft Surf 0  3 3/4" 7, N-80 23# Surf 3920" 700 Type C Foz 1175 cu ft Surf 0  6 1/4" 4 1/2", P-110 11.6# 3702" 8349" 430 sx Dk Lite 765 cu ft 3702" 0  24. Tubing Record Pepth (MD) Packer Depth (MD) Size Depth Set (		GAMMA RAY, DENSITY, NEUTRON, INDUCTION, CBL Was										as DST run?	T run? Yes (Submit report)					
Hole Size   Size Grade   Wt. (MR)   Top (MD)   Bottom(MD)   Singe Cementer Depth   No. of Size   Type of   Sturry Vol. (Bb)   Cement Top*   Amount Polled	Directional Survey? No X Yes (Submit copy)																	
12   14"   9   558"   3-55   3-68"   Surf   333'   1-65   Type G   Poz   1175 cut ft   Surf   0	23. Casing	and Liner Reco	rd (Repo	ort all strin	gs set	in well)												
12   14   9   9   58   3.4   Surf   333   165   Type G   Poz   175 cu ft   Surf   0	Hole Size	Size/ Grade	Wt	(#/ft )	Top (	MD)	Bottom(MD) Stage Cer			ter Depth			Sherry V	Slurry Vol. (Bbl) Cement To		n*	Amount Pulled	
33/4"   7", N-80   23#   Surf   3920'   700 Type G Poz   1175 ca ft   Surf   0   6 1/4"   4 1/2", F-110   11.6#   3702'   8349'   430 sx Dk Lite   765 cu ft   3702'   0									J									
A																-+		
24.   Tubing Record   Size   Depth Set (MD)   Packer Depth (MD)   Size   Depth Set (MD)   Packer Depth (MD)   Size   Depth Set (MD)   Packer Depth (MD)   Packer Dep																		
Size   Depth Set (MD)   Packer Depth (MD)   Size   Depth Set (MD)   Packer Depth (MD)   2 3/8"   7187"   N/A																_		
Size   Depth Set (MD)   Packer Depth (MD)   Size   Depth Set (MD)   Packer Depth (MD)   2 3/8"   7187"   N/A																		
Size   Depth Set (MD)   Packer Depth (MD)   Size   Depth Set (MD)   Packer Depth (MD)   2 3/8"   7187"   N/A																		
2.3/8"   7187'   N/A																		
25. Producting Intervals    Formation   Top   Bottom   Performed Interval   Size   No. of Holes   Perf. Status			) P:		MD)	Size	-	Dept	h Set (MD)	Packer	Depth (MD)	Si	ze	Dept	h Set (MD)	Pac	ker Depth (MD)	
Perforated lateval   Size   No. of Holes   Perf. Status				N/A						<u> </u>				L		J		
Mancos   7272   8142   8042-44, 8060-62, 8076-79, 8134-42.   34"   22   open				Top		Botton	m	26.				Sina	No. of	fUoles		Deef Co	-atua	
Total Production   Test Date   Hours Tested   Froduction   Test Production   Test Date   Hours Tested   Test Production   Test Date   Hours Tested   Test Date   Hours Tested Date Date Date Date Date Date Date Date								8042-44,		2.	2.							
Production   Interval   BD w/ 1000 gal 7 1/2% HCl, 3 settlings w/ PKR and RBP & 76 balls. Frac w/ 75000 gal XL gel and 800000 gal XL gel and 8000000 gal XL gel and 8000000000000000000000000000000000000	A)	Mancos	1	7272 81									-		open			
	В)										.34"		76		open			
C)  27. Acid,Fracture Treatment, Cement Squeeze, Etc.  Depth Interval  BD w/258 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4200# 20/40 RC sand, screen out. Re-BD w/ 650 gal 7 1/2% HCl, pressure out, SD, set composite BP @ 8015'  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  Reformation and Type of Material  BD w/258 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4200# 20/40 RC sand, screene out. Re-BD w/ 650 gal 7 1/2% HCl, pressure out, SD, set composite BP @ 8015'  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 75000 gal XL gel and 80000# 20/40 RC sand  28. Production-Interval A  Date First Produced  Test Date Hours Tested Test Oil Bbl Gas MCF Water Bbl Corr. API Gas Gravity Production Method Produce  11/2/1006 8  161 1.6  Flowing  ACCEPTED FOR RECORD  NOV 0 4 2006  Choke Size Tog. Press Csg Press. 24 Hr. Rate Oil Bbl Gas MCF Water Bbl Corr. API Gas: Oil Gravity Corr. API Gas Gravity Production Method NOV 0 4 2006  Choke Size Tog. Press Csg Press. 24 Hr. Rate Oil Bbl Gas MCF Water Bbl Corr. API Gas: Oil Gravity Production Method NOV 0 4 2006  Choke Size Tog. Press Csg Press. 24 Hr. Rate Oil Bbl Gas MCF Water Bbl Corr. API Gas: Oil Gravity Production Mothod NOV 0 4 2006													4" 58		onen			
Amount and Type of Material  8042-8142  BD w/259 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4200# 20/40 RC sand, screen out. Re-BD w/ 659 gal 7 1/2% HCl, pressure out, SD. set composite BP @ 8015*  7658-7956  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7692*  7272-7568  BD w/ 1000 gal 7 1/2% HCl, 3 settings w/ PKR and RBP & 76 balls. Frac w/ 75000 gal XL gel and 80000# 20/40 RC sand  28. Production- Interval A  Date First Produced  112/2006  Ready to Production Method Production  112/2006  Ready to Produce  112"  Gas MCF Water Bbl Gas MCF Water Bbl Gas MCF Water Bbl Gas: Oil Ratio Well Status  Ready to Produce  ACCEPTED FOR RECORD  NOV 0 4 2006  Choke Size  Tog. Press Flwg. S1  Cag Press. 24 Hr. Rate  Oil Bbl Gas MCP Water Bbl Corr. API  Test Date Production  Test Date Hours Tested Froduction  Tost Date Froduction  Tost Dat	C)			<u> </u>				7,511-13,	7,700*00			T	3	,		ope		
BD w/250 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4200# 20/40 RC sand, screen out. Re-BD w/ 650 gal 7 1/2% HCl, pressure out, SD, set composite BP @ 801.5'  7658-7956  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  BD w/250 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4200# RC sand, screened out. Set RBP @ 7658-7956  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  BD w/250 gal 10% Acetic w/ 21 balls, 20000 gal XL gel w/ 4000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCl water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  BD w/250 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  BD w/250 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP @ 7658-7956  Production Interval A  Date First Test Date Hours Tested Test Flowing  ACCEPTED FOR SECORD  NOV 0 4 2006  Choke Size Tog. Press Flwg. S1  Test Date Hours Tested Test Forduction Flowing  ACCEPTED FOR SECORD  NOV 0 4 2006  Choke Size Tog. Press Flwg. S1  Test Date Hours Tested Test Forduction Flowing  ACCEPTED FOR SECORD  NOV 0 4 2006  Choke Size Tog. Press Flwg. S1  Test Flowing  ACCEPTED FOR SECORD  NOV 0 4 2006	27. Acid,Fi	racture Treatme	nt, Cem	ent Squeez	e, Etc													
Ready to Produced   Test Date   Hours Tested   Test Flyur   Si   62   320   ACCEPTED FOR RECORD   Date First Produced   Test Date Flyur	D	epth Interval		DD 25-5	1100	A		10000							***	<del></del>		
Perforate and BD w/ 6 propellant charges. BD w/ 6 settings PKR/RBP & KCI water. Frac 21300 gal XL gel w/ 3000# 20/40 RC sand, screened out. Set RBP (2 7602')  7272-7568  BD w/ 1000 gal 7 1/2% HCl, 3 settings w/ PKR and RBP & 76 balls. Frac w/ 75000 gal XL gel and 80000# 20/40 RC sand  28. Production- Interval A  Date First Produced  Test Date Hours Tested Production  11/2/2006  8	8	042-8142			ai 10% .	Acetic w/ 21	balls, 2	oudo gal :	x.L gel w/ 4200	# 20/40 RC	sand, scree	n out. Re-Bl	⊅ w/ 650 g	pal 7 1/2%	HCL pressure	out, SI	, set composite	
7272-7568  BD w/ 1000 gal 7 1/2% HCl, 3 settings w/ PKR and RBP & 76 balls. Frac w/ 75000 gal XL gel and 80000# 20/40 RC sand  28. Production- Interval A  Date First Test Date Hours Tested Production  11/2/2006  8				Perforate as	rd BD w	/ 6 propella	nt char	ges. BD w	/ 6 settings PK	R/RBP &	KCl water.	Frac 21300 g	al XL gel	w/ 3000#	20/40 RC sand	i, screei	ted out. Set RBP	
28. Production-Interval A  Date First Produced  11/2/2006  11/2/2006  10					gal 7 1/	2% HCl. 3 «	ettings	w/ PKR a	nd RBP & 761	balls. Frac	w/ 75000 oa	i XL gel and	80000# 24	0/40 RC **	and			
Date First Producted  11/2/2006  8	<u> </u>			1	- · -/							Ov. mm/r		8				
The Press Flag.  1/2" SI 62 320  28a. Production- Interval B  Date First Produced  Tog. Press First Produced  Tog. Press First Produced  Tog. Press First First Produced  Tog. Press First Flow.  Tog. Press First Produced  Tog. Press First Flow.  Tog. Press First Froduced  Tog. Press First Froduced  Tog. Press First First Produced  Tog. Press First First Froduced  Tog. Press First First Froduced  Tog. Press First First Froduced  Tog. Press First First First Froduced  Tog. Press First First First Froduced  Tog. Press First Fi	Date First		Hours Te			Oil Bbl	Gas	MCF		1		as Gravity	Prod	luction Me	thod			
Choke Size   Tog. Press   Csg   Press.   24 Hr. Rate   Oil Bbl   Gas MCF   Bbl   Gas: Oil Ratio   Well Status   Ready to Produce	Produced	11/0/000	٥	Produc	tion			161	1	Corr. API			j		T77			
Fivg.   SI   62   320   482   5	Choke Size			css. 24 Hr.	Rate	Oil Bbl				Gas: Oil I	Ratio	Well Status		n.			100	
28a. Production- Interval B  Date First Produced  Test Date Production  Test Date Produc		Flwg.					1		вы	1	Ì			ĸe	auy to P	rvul	ict	
Date First Produced  Test Date Hours Tested Production NOV 0 4 2006  Choke Size Tog. Press Flwg. S1  Cas MCF Bbl  Gas MCF Water Bbl  Gas MCF Water Bbl  Gas Cil Ratio Well Status  FARMINGTON FIELD OFFICE BY 1 2006		62	320			L		482	5	<u> </u>							***************************************	
Produced  Production  Tog. Press Flwg. SI  Production  Oil Bbl  Gas MCF  Water  Bbl  Gas: Oil Ratio  Well Status  FARMING SAME BY  SAME BY																		
Choke Size Tog. Press Csg Press. 24 Hr. Rate Oil Bbl Gas MCF Water Gas: Oil Ratio Well Status FARMING CAN FIELD GEFICE BY L.S. A.V. C. B. C. G. C.	Produced	1 cst Date	nours l'e	1	tion	ON RDI	Gas	MCF			-	as Gravity	Prod	ouction Me		v o	h 2000	
Five. St. Salvets			<u> </u>	l_			1		<u></u>				1		L NU	V U	4 2006	
SI	Choke Size	_	Csg Pro	ess. 24 Hr.	Rate	Oil Bbl	Gas	MCF	1	Gas: Oil 1	Ratio	Well Status			FARMIN	IGTON	FIELD OFFICE	
* See instructions and spaces for additional data on page 2)			]	I					1001		ŀ	Į.	1	1	0115	۵۵	TAK! 2	
	* See instructionsor	nd spaces for addition	nal data or	page 2)		L_,				1	NAME	cn '	2-44	a				

28b. Production- Interval C													
					Test Production	Oil Bbl	Gas MCF	Water Bbl		Gravity . API	Gas Gravity	Production Method	
Choke Size Tbg. Press Flwg. SI			Csg P	Press.	24 Hr. Rate	Oil Bbl	Gas MCF	Water Bbl	Gas:	Oil Ratio Well Status			
28c. Production- Interval D													
Date First Produced													
Choke Size	Tbg. Press Csg Press. 24   Flwg. SI					Oil Bbl	Gas MCF	Water Bbl	Gas:	Oil Ratio	Well Status		
29. Disposition of Gas (Sold, used for fuel, vented, etc.)  Vent													
30. Summary Show all impo interval tested.	ortant zones	of porosity	y and co	ntents t	hereof: Cored		all drill-stem test	s, including d		31. Form	ation (Log) Ma	rkers:	
Formation Top Bottom Descriptions Contents, Etc. Name Top  Measured De											Top Measured Depth		
Mancos 6558 8299  32. Additional remarks (include plugging pro					procedure)	:				San Jose Nacimiento Ojo Alamo Kirtland Fruitland Pictured Cliffs Lewis Cliffhouse Menefec Point Lookout Mancos   Dakota			0 2075 3191 3421 3601 3699 3922 5687 5909 6043 6558 8299
Electrical Sundry N	l/ Mechanica	al Logs (I	full set i	required	tion		in the appro Geologic Re Core Analysi	port		DST Re X Other:		X Directional Sur Wellbore D  thed instructions)*	
Name (pleas		Loren			anominate	on a comple	io aint collect				t (Agent)	nea risuucuons)*	
Signature	~ print)	Te	1		/	) ic	<u> </u>	Da			(-02-c	X6	
			-										

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.

## 11/2/2006

## Black Hills Gas Resources, Inc. Jicarilla 462-22 #722

## **Current Wellbore Diagram**

API # 30-039-29889

## UNIT F SE NW, Sec 22, T30N, R03W Rio Arriba, NM Spud Date 7-18-2006

