

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

*Copy 4 SF
10-22-2*

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3/21/74			
Company Black River Corporation				Connection None					
Pool Wichita River South Side				Formation Delaware				Unit E	
Completion Date 3/21/74		Total Depth 1414		Plug Back TD 1378		Elevation 3773		Farm or Lease Name Black River Fed. 4	
Csg. Size 5.5	Wt. 14.0	d 5.012	Set At 1414	Perforations: From 1331 To 1335		Well No. 3			
Tbg. Size 2.375	Wt. 4.6	d 1.005	Set At 1340	Perforations: From To		Unit Sec. Twp. Rge. E 4 26 24			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At		County Pecos	
Producing Thru Top		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a 13.2		State New Mexico	
L	H	Gg 550 Assumed	% CO ₂	% N ₂	% H ₂ S	Prover 2"	Meter Run	Type	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							463		463		72 hr.
1.			1.2	450		56	450	48	449		1 hr.
2.			2.4	424		62	424	54	425		1 hr.
3.			3.6	400		64	400	67	402		1 hr.
4.			4.8	373		67	373	70	377		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd
1.	2648		463.2	1.004	1.325	1.037	169
2.	5082		427.2	.9941	1.325	1.034	354
3.	8303		413.2	.9962	1.325	1.032	472
4.	1087		386.2	.9933	1.325	1.029	569
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.69	516	1.40	.020	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.65	522	1.51	.036	Specific Gravity Separator Gas _____
3.	.61	524	1.51	.039	Specific Gravity Flowing Fluid _____
4.	.57	527	1.52	.044	Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ °R _____ °R

P _c 476.2 P _c ² 226,600			
NO.	P _r	P _w	P _w ²
1		463.2	213,400
2		427.2	182,400
3		413.2	170,600
4		386.2	149,100
5			

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 3.040$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.376$

ACF = 0 $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.067$

Absolute Open Flow	1.067	Mcfd @ 15.025	Angle of Slope θ	60.5	Slope, n	.566
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Remarks: Well made a small mist of water during third and fourth rates.

Approved By Commission:	Conducted By: Reggie Reston	Calculated By: Reggie Reston	Checked By:
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BLACK RIVER CORPORATION
 Black River Federal 4 No. 3
 E 4-26-24 Eddy County, New Mexico
 March 21, 1974

P₂ P₀² W (0.005)

LOG LOGARITHMIC
 3 X 3 CYCLES
 45 7400
 MADE IN U.S.A.
 KIEFFEL & ESSER CO.

