c/SF

Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: Nearburg Producing Company							Lease or Unit Name: Black River 3 Federal Com				
Type Test: [X] Initial [ ] Annual [ ] Special							Test Date: 04/08/97			Well No.: 1	
Completion Date: 01/24/97		Total Depth: 11832		Plug Back TD: 11730			Elevation: 3340' GL			Unit Ltr. - Sec. - TWP - Rge.: K 3 24s 26e	
Csg. Size: 5½	Wt.: 23#	d: 4.670	Set At: 11832	Perforations: From: 11310		To: 11406				County: Eddy	
Tbg. Size: 2 7/8	Wt.: 6.5#	d: 2.441	Set At: 11237	Perforations: From: OPEN		To: ENDED				Pool: Morrow South Carlsbad	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single				Packer Set At: 11237						Formation: Morrow	
Producing Thru: Tbg	Reservoir Temp. °F: 186 @ 11237	Mean Annual Temp. °F: 60		Baro. Press - P_a: 13.2						Connection: EPNG	
L: 11237	H: 11237	Gg: 0.580	% CO_2: 1.14	% N_2: 0.16		% H_2S	Prover			Meter Run: 4.026	Taps: FLG

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					1556		PACKER		24 Hrs
1.	4.026 x 2.500	359	2.89	82	1519				1 Hr
2.	4.026 x 2.500	384	13.00	82	1423				1 Hr
3.	4.026 x 2.500	397	24.01	78	1293				1 Hr
4.	4.026 x 2.500	410	38.40	78	1113				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, F pv.	Rate of Flow Q, Mcfd
1.	32.64	32.80	372.2	.9795	1.313	1.026	1413
2.	32.64	71.86	397.2	.9795	1.313	1.028	3101
3.	32.64	99.24	410.2	.9831	1.313	1.028	4298
4.	32.64	127.48	423.2	.9831	1.313	1.030	5532
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.55	542	1.55	.950
2.	.58	542	1.55	.947
3.	.60	538	1.54	.946
4.	.62	538	1.54	.943
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Dry Deg.
Specific Gravity Separator Gas: .580 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: * 676 P.S.I.A. P.S.I.A.
Critical Temperature: * 349 R R

P_c 1569.2 P_c^2 2462.4

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		1539.5	2370.1	92.3
2.		1473.5	2171.2	291.2
3.		1384.2	1916.1	546.2
4.		1272.9	1620.2	842.2
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.924$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.931$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 10.682$

Absolute Open Flow: 10,682 Mcfd @ 15.025 | Angle of Slope θ: 58.46 | Slope, n: .6135

Remarks: * Corrected To 1.14% CO_2
No Fluid Produced

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Jarrel Services, Inc.	Bob Murray	Bob Murray

[redacted]

Job separation sheet