

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 Harvey E. Yates Company				Lease or Unit Name Lynx 19 Federal			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6/18/00		Well No. 1	
Completion Date 6/17/00		Total Depth 11200		Plug Back TD 10995		Elevation 3564' GL + 17' KB	
Csg. Size 5 1/2		Wt. 17#		d 4.892		Set At 11200	
Tbg. Size 2 3/8		Wt. 4.7#		d 1.995		Set At 10841	
Perforations: From: 10918 To: 10946				Pool Eddy			
Perforations: From: Open To: Ended				Turkey Track North			
Type Well: Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10841		Formation Middle Morrow	
Producing Thru Tbg		Reservoir Temp. °F 60		Mean Annual Temp. °F 60		Baro. Press. - P. 13.2	
L 10841		H 10841		Gg .671		% CO ₂ .407	
				% N ₂ .462		% H ₂ S 	
				Prover 		Meter Run 3.068	
						Taps FLG	

10841	10841	.671	.407	.402	TUBING DATA		CASING DATA		Duration of Flow
FLOW DATA					Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	
51							3040	PACKER	24 Hrs
1	3.068	x 1.500		222	1.8	70	2690	"	1 Hr
2	3.068	x 1.500		223	6.8	84	2385	"	1 Hr
3	3.068	x 1.500		228	11.4	87	2145	"	1 Hr
4	3.068	x 1.500		232	19.8	78	1870	"	1 Hr
5									

RATE OF FLOW CALCULATIONS							
NO	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	11.13	20.58	235.2	.9905	1.221	1.025	284
2	11.13	40.08	236.2	.9777	1.221	1.022	544
3	11.13	52.44	241.2	.9750	1.221	1.022	710
4	11.13	69.68	245.2	.9831	1.221	1.023	952
5							

NO	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.35	530	1.38	.952	N/A	N/A	.671	XXXXXXX	669	382
2	.35	544	1.42	.957				XXXXX		
3	.36	547	1.43	.957						
4	.36	538	1.40	.955						
5										

P _c 3053.2	P _c 9322.0									
NO	P _i	P _w	P _w ²	P _c ² - P _w ²	$1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.622$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.622$					
1		2703.7	7309.8	2012.2	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.544$					
2		2400.1	5760.3	3561.7						
3		2161.7	4672.9	4649.1						
4		1890.4	3573.5	5748.5						
5										

Absolute Open Flow **1.544** Mcfd @ 15.025 Angle of Slope θ **45** Slope, n **1.000**

Remarks **Well produced 5 bbls water - no oil**

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