

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 Lynx Petroleum Consultants, Inc.					Lease or Unit Name Lee "K" Federal				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7/21/94		Well No. 1		
Completion Date 7/18/94		Total Depth 11,810		Plug Back TD 11,390		Elevation 3346' GL		Unit Ltr. - Sec. - TWP - Rge. J-21-22S-26E	
Csg. Size 5 1/2"	Wt. 17#	d L-80	Set At K-55	Perforations: From: 10,574' To: 10,580'			County Eddy		
Tbg. Size 2 3/8"	Wt. 4.6#	d N-80	Set At 10,484	Perforations: From: To:			Pool Wildcat Atoka Gas		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 10,484'			Formation Atoka	
Producing Thru Tbg		Reservoir Temp. °F 170		Mean Annual Temp. °F 70		Baro. Press - P _a 13.2		Connection	
L 10574	H 10574	Gg 0.608	% CO ₂ 0.37	% N ₂ 0.73	% H ₂ S 0.0	Prover		Meter Run 2"	Taps Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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						3794		PACKER	
1.	2 x 0.375		450	2	60	3484	70		
2.	2 x 1.000		445	5	55	2944	70		
3.	2 x 1.000		445	11	55	1980	70		
4.	2 x 1.000		450	22	50	970	70		
5.									

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	.6689	30.4	463.2	1.0	1.282	1.041	27
2.	4.946	47.9	458.2	1.005	1.282	1.043	318
3.	4.946	71.0	458.2	1.005	1.282	1.043	472
4.	4.946	100.9	463.2	1.010	1.282	1.045	675
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.69	520	1.44	0.922	500	
2.	0.68	515	1.43	0.919	58	
3.	0.68	515	1.43	0.919		
4.	0.69	510	1.42	0.916		
5.						

P _c 3807.2 P _c ² 14495		A.P.I. Gravity of Liquid Hydrocarbons 58 Deg.	
		Specific Gravity Separator Gas 0.608 XXXXXXXXXX	
		Specific Gravity Flowing Fluid XXXXX 0.614	
		Critical Pressure 671 P.S.I.A. P.S.I.A.	
		Critical Temperature 360 R R	

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	12230.0	3501	12257	2238
2.	8745.0	2962	8773	5722
3.	3972.8	1998	3992	10503
4.	966.7	991	982	13513
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.073$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 727$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.078$

Absolute Open Flow 727	Mcf/d @ 15.025	Angle of Slope θ	Slope, n 1.06
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Remarks:

Approved By Division

Conducted By:

Calculated By:

Checked By:

Keltic Services

Marc Wise