

AUG 15 '89

Form C-122
Revised 10-1-78

451
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
ARTESIA OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 8-8-89				
Company CHEVRON USA ✓				Connection AIR					
Pool HAPPEY VALLEY				Formation MORROW				Unit L	
Completion Date 7-25-89		Total Depth 11810		Plug Back TD 11805		Elevation 3346		Farm or Lease Name LEE "K" FEDERAL	
Csg. Size 5.500	Wt. 17.0	d 4.892	Set At 11810	Perforations: From 11487 To 11627		Well No. 1			
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 11461	Perforations: From To		Unit Sec. Twp. Rge. J 21 22S 26E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE-GAS					Packer Set At 11422		County EDDY		
Producing Thru TUBING		Reservoir Temp. °F 186 @ 11557		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 11557	H 11557	G _g 0.587	% CO ₂ 0.99	% N ₂ 0.51	% H ₂ S 0	Prover 0	Meter Run 4.026	Taps FLANGE	

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							3750	70			90.0
1.	4.026 X 1.250			500	8	95	3479	60	PKR		1.0
2.	4.026 X 1.250			503	16	100	3341	60			1.0
3.	4.026 X 1.250			505	43	100	3141	60			1.0
4.	4.026 X 1.250			505	71	79	2880	60			1.0
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	7.47	64.07	513.2	.9680	1.3052	1.0327	624
2	7.47	90.88	516.2	.9636	1.3052	1.0318	881
3	7.47	149.27	518.2	.9636	1.3052	1.0319	1447
4	7.47	191.81	518.2	.9822	1.3052	1.0371	1905
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.76	555	1.58	.938	0	
2	.76	560	1.59	.939		
3	.77	560	1.59	.939		
4	.77	539	1.53	.930		
5						

A.P.L. Gravity of Liquid Hydrocarbons 0					Deg.	
Specific Gravity Separator Gas 0.587					XXXXXX	
Specific Gravity Flowing Fluid XXXXX					0.587	
Critical Pressure 677					P.S.I.A. 677	
Critical Temperature 351					R 351	

$P_c = 3752 - 4 P_c^2 = 14080$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.5204$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.5204$	
NO.	P _r	P _w	P _w ²	P _c ² - P _w ²				
1	12195	3497	12226	1854				
2	11251	3360	11292	2788				
3	9949	3167	10029	4051				
4	8371	2914	8494	5586				
5								

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4801$				
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Absolute Open Flow 4801		Mcf @ 15.025		Angle of Slope @ 45.0		Slope, n 1.000	
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Remarks: CHOKES 1ST RATE 3/64 2ND RATE 4.5/64 3RD RATE 6/64 4TH RATE 7.5/64			
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Approved By Division	Conducted By: Bennett & Cathey	Calculated By: Matt Lee	Checked By:
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