

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/18/81	
Company Tenneco Oil Company		Connection None	
Pool Lusk		Formation Morrow	
Completion Date 10/27/81		Total Depth 12697'	
Plug Back TD 12438'		Elevation 3525' GL+20'	
Well No. 1		Farm or Lease Name HJ 13 Federal Com	
Ceq. Size 5 1/2"		Set At 12697'	
Perforations: From 12341' To 12397'		Well No. 1	
Tng. Size 2 3/8"		Set At 12196'	
Perforations: Open Ended		Unit K	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single		Packer Set At 12196'	
Producing Thru Tubing		Reservoir Temp. °F. 188 ° 12170'	
Mean Annual Temp. °F. 60		Baro. Press. - P _a 13.2	
County Eddy		State New Mexico	
L 12369'		H -	
C _g 0.6823		% CO ₂ 1.652	
% N ₂ 0.4570		% H ₂ S -	
Prover -		Meter Run 2.900	
Taps F			
FLOW DATA			
NO.	Prover Line Size	X	Orifice Size
SI			
1.	2.900	5/64	1.000
2.	2.900	7/64	1.000
3.	2.900	10/64	1.000
4.	2.900	12/64	1.000
5.			
TUBING DATA			
NO.	Press. p.s.i.g.	Temp. °F	DWT
1.	3700	60	
2.	3616		
3.	2385		
4.	1800		
5.	1330		
CASING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
1.			48.5 hrs
2.			1.0 hr
3.			1.0 hr
4.			1.0 hr
5.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1.	4.801	54.61	298.2
2.	4.801	82.85	343.2
3.	4.801	120.62	393.2
4.	4.801	130.16	413.2
5.			
NO.	P _f	Temp. °R	T _f
1.	0.44	540	1.42
2.	0.50	540	1.42
3.	0.58	533	1.41
4.	0.61	531	1.40
5.			
Gas Liquid Hydrocarbon Ratio 13.353 Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons -			
Specific Gravity Separator Gas 0.6823			
Specific Gravity Flowing Fluid X X X X X			
Critical Pressure 680 P.S.I.A.			
Critical Temperature 379 °R			
F _c 5522.2 F _c ² 30494.7			
NO.	P _f	P _w *	P _f ² - P _w ²
1.		4531.2	20531.8
2.		3923.2	15391.5
3.		3311.2	10964.0
4.		2446.2	5983.9
5.			
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.019$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.976$			
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 964$			
Absolute Open Flow 964 Mcf @ 15.025			
Angle of Slope @ 45° 53'			
Slope, n 0.970			
Remarks: * BOTTOM HOLE PRESSURE @ (-8844) 12369' USED FOR PRESSURE CALCULATIONS			
WELL PRODUCED 7.2 BD IN 4.0 HOURS = 43.2 BD/D			
Approved By Division H. Wilson		Conducted By: JARREL WELL TESTING, INC	
Calculated By: Joe A. Coleman		Checked By: Joe A. Coleman PE #2208	