

CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1/25/82			
Company HNG Oil Company				Connection Transwestern					
Pool Vaca Draw				Formation Wolfcamp				Unit	
Completion Date 1/15/82		Total Depth 15,930'		Plug Back TD 14883'		Elevation 3408'		Farm or Lease Name Bell Lake 11 Federal	
Coz. Size 4 1/2" Liner	Wt. 15.1	d 3.826	Set At 15909	Perforations: From 13684 To 13693		Well No. 1			
Tqz. Size 2 7/8"	Wt. 6.50	d 2.441	Set At 12666'	Perforations: Open Ender From To		Unit B 11 25S 33e			
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 12666'		County Lea			
Producing Thru Tubing		Reservoir Temp. °F 1		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 13688'	H -	G _g 0.9017	% CO ₂ 0.738	% N ₂ 2.555	% H ₂ S -	Prover	Meter Run 2"	Taps F	

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. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							8130				45.0 hrs
1.	2"	1.375	800	8	54	7445	60	PACKER			2.25 hr
2.	2"	1.375	800	18	54	7050	60				1.25 hr
3.	2"	1.375	800	31	52	6500	60				1.00 hr
4.	2"	1.375	805	40	51	5750	60				8.00 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	10.20	80.66	813.2	1.006	1.053	1.206	1051.07
2	10.20	120.99	813.2	1.006	1.053	1.206	1576.61
3	10.20	158.77	813.2	1.008	1.053	1.218	2093.65
4	10.20	180.21	818.2	1.009	1.053	1.222	2395.82
5							

NO.	P _r	Temp. °R	T _r	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	1.23	514	1.17	0.687	37.309 Mcf/bbl.	61.7 Deg.	0.9017	XXXXXX	661 P.S.I.A.	441 °R
2	1.23	514	1.17	0.687						
3	1.23	512	1.16	0.674						
4	1.24	511	1.16	0.671						
5										

NO.	P _i ²	P _w ²	P _w ²	P _i ² - P _w ²	(1) $\frac{P_c^2}{P_i^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_i^2 - P_w^2} \right]^n =$
1	9882.2	97657.9	17586.6		2.881	2.359
2	9452.2	89344.1	25900.4			
3	8674.2	75241.1	40003.4			
4	8222.2	67604.6	47639.9			
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Absolute Open Flow 4939 Mcfd @ 15.025		Angle of Slope 50° 58'		Slope, n 0.811	
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Remarks: * BOTTOM HOLE PRESSURE @ (-10280)13688' USED FOR PRESSURE CALCULATIONS
WELL PRODUCED 24.84 BD in 12.5 HOURS = 47.69 BD/D

Approved By Division JERREL WELL TESTING, INC.	Conducted By: JOE A. COLEMAN	Calculated By: JOE A. COLEMAN	Checked By: PE #2208 Joe A. Coleman
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