

CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2000
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 9/30/83	
Company HNG Oil Company		Connection Transwestern Pipeline	
Field Pitchfork Ranch		Formation Atoka	
Completion Date 6/10/83	Total Depth 15435'	Plug Back To 14103'	Elevation 3394' GL
Casing Size 4 1/2" ID 13.5 WT.		Perforations From 13924' To 13930'	
Tubing Size 2 7/8" ID 7.9 WT.		Perforations From Open To Ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 12723'	County Lea
Producing thru Tubing	Reservoir Temp. °F 213° 13927'	Mean Annual Temp. °F 60°	Buro. Press. - P _a 13.2
L 13927	H 13927	G _g .6431	% CO ₂ .365
		% N ₂ 1.136	% H ₂ S Prover
			Meter Run 2.067
			Steps 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.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							8370				24.00 hr
1.	2	X	1.250	875	11.0	90	8270	62	PKR		1.00 hr
2.	2	X	1.250	885	18.0	90	8180	62	PKR		1.00 hr
3.	2	X	1.250	890	35.0	80	8060	61	PKR		0.45 Min
4.	2	X	1.250	905	84.0	70	7660	61	PKR		1.00 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (4 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf/d
1	8.120	98.84	888.2	.9723	1.247	1.075	1046
2	8.120	127.15	898.2	.9723	1.247	1.076	1347
3	8.120	177.80	903.2	.9813	1.247	1.081	1910
4	8.120	277.72	918.2	.9905	1.247	1.091	3039
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	1.33	550	1.48	.865	52.967	52 @ 60°	.6431	.700	670	372
2	1.34	550	1.48	.864						
3	1.35	540	1.45	.855						
4	1.37	530	1.42	.840						
5										

NO.	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1	10455.2	8463.2	71626.4	7.322	3.583
2	10387.2	8398.2	70530.2		
3	10277.2	8295.6	68816.3		
4	9926.2	7968.8	63501.7		
5	10571.2	SIP			

Absolute Open Flow	10888	Mscf @ 15.025	Angle of Slope θ	57.25°	Slope, n	.641
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Remarks: PRODUCED 5.4 BBL'S OF DISTILLATE DURING THE TEST
* CALCULATED FROM BOTTOM HOLE PRESSURE TAKEN @ 13927'.

Approved by Division ORIGINAL SIGNED BY JERRY SEXTON	Conducted By: JARREL WELL TESTING INC.	Calculated By: Rick Pagan	Checked By: Rick Pagan
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