

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11/4/82		RECEIVED NOV 16 1982	
Company HNG Oil Company				Connection Llano Inc.					
Pool Dublin Ranch				Formation Morrow				Unit O. C. D.	
Completion Date 8-23-82		Total Depth 12584'		Plug Back TD 12,524'		Elevation 3033.3 GR		APTESA License Name Faulk 32 Com	
Coq. Size 4 1/2"	Wt. 13.5	d 3.920	Set At 12582'	Perforations: From 12,063' To 12497'				Well No. 1	
Trq. Size 2	Wt. 4.7	d 1.995	Set At 10760'	Perforations: Open Ended				Unit Sec. Twp. Range I 32 22s 28e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At ISA 10,705'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F -		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 12422	H -	G _g 0.5750	% CO ₂ 1.108	% N ₂ 0.238	% H ₂ S -	Prover -	Meter Run 2.900	Taps F	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3125		PACKER		48.0 hrs
1.	2.90		0.875	505	3.0	63	2957	67			1.0 hr
2.	2.90		0.875	505	6.5	67	2810	69			1.0 hr
3.	2.90		0.875	510	13.0	72	2615	69			1.0 hr
4.	2.90		0.875	510	22.0	75	2345	69			1.0 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, Fpv	Rate of Flow Q, Mcf/d
1	3.657	39.43	518.2	0.9971	1.319	1.036	196.47
2	3.657	58.04	518.2	0.9933	1.319	1.035	287.82
3	3.657	82.47	523.2	0.9887	1.319	1.035	407.07
4	3.657	107.29	523.2	0.9859	1.319	1.034	527.57
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	0.76	523	1.54	0.931	A.P.I. Gravity of Liquid Hydrocarbons	-	Deq.
2	0.76	527	1.55	0.933	Specific Gravity Separator Gas	0.575	XXXXXXXXXX
3	0.77	532	1.56	0.933	Specific Gravity Flowing Fluid	XXXXXX	
4	0.77	535	1.57	0.935	Critical Pressure	679 P.S.I.A.	- P.S.I.A.
5					Critical Temperature	340 R	- R

P _c 4177.2 P _w ² 17449.0				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.305$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.915$	
NO.	P _i ²	P _w *	P _w ²	P _c ² - P _w ²			
1		3909.2	15281.8	2167.2			
2		3721.2	13847.3	3601.7			
3		3487.2	12160.6	5288.4			
4		3143.2	9879.7	7569.3			
5							

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1010.3$

Absolute Open Flow 1010 Mcfd @ 15.025 Angle of Slope 52° 7' Slope, n 0.778

Remarks: * BOTTOM HOLE PRESSURE @ (-9389) 12422' USED FOR PRESSURE CALCULATIONS

Approved By Division	Conducted By: Jarrel Well Testing, Inc.	Calculated By: Joe A. Coleman	Checked By: PE #2208 Joe A. Coleman
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