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OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501

OCT 8 1982

Form C-122

Revised 10-1-78

4/5F
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS, D.

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9/30/82		APTESIA, OFFICE	
Company HNG Oil Company		Connection El Paso Pipeline Co.		Unit	
Pool West Malaga - 15000		Formation Atoka		Farm or Lease Name	
Completion Date 6-26-82		Total Length 12920'		Plug Back TD 11475'	
Casing Size 4 1/2"		Well ID 13.5		Set At 12920'	
Perforations: From 11290' To 11393'		Elevation 3005.5' GR		Well No. 1	
Perforations: Open Ended		Unit H		Sec. 8	
Twp. 27 7/8"		Wt. 6.5		Twp. 24s	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At 10193'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 182° 11400'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico		Meter Run 3.064	
L 11342		H -		G _g 0.6530	
% CO ₂ 0.251		% N ₂ 0.773		% H ₂ S -	
Prover -		Meter Run 3.064		Type 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							3441		PACKER		48.0 hrs
1.	3.068		2.250	290	1	94	3240	60			1.0 hr
2.	3.068		2.250	300	2	79	2691	60			1.0 hr
3.	3.068		2.250	315	3	80	2330	60			1.0 hr
4.	3.068		2.250	320	4	78	2250	60			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, F _{sp}	Rate of Flow Q, Mcfd
1	28.78	17.41	303.2	0.9688	1.237	1.024	614.88
2	28.78	25.03	313.2	0.9822	1.237	1.028	899.73
3	28.78	31.38	328.2	0.9813	1.237	1.029	1128.06
4	28.78	36.51	333.2	0.9831	1.237	1.030	1316.16
5							

Dry Gas					Mcf/bbl.	
NO.	P _r	Temp. °R	T _r	Z	A.P.L. Gravity of Liquid Hydrocarbons	Deq.
1	0.45	554	1.49	0.953	0.653	XXXXXXX
2	0.47	539	1.45	0.946	0.653	XXXXXXX
3	0.49	540	1.46	0.944	0.653	XXXXXXX
4	0.50	538	1.45	0.942	0.653	XXXXXXX
5						

Rate of Flow Calculations				Rate of Flow Calculations		
NO.	P _r	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	5991.2	5977.2	35726.9	167.6	11.229	3.603
2	5863.2	5863.2	34377.1	1517.4		
3	5790.2	5790.2	33526.4	2368.1		
4	5718.2	5718.2	32697.8	3196.7		
5						

Absolute Open Flow				Angle of Slope		Slope, n	
NO.	P _r	P _w	P _w ²	Angle of Slope	Slope, n	Angle of Slope	Slope, n
1	5991.2	5977.2	35726.9	62° 4'	0.530		
2	5863.2	5863.2	34377.1				
3	5790.2	5790.2	33526.4				
4	5718.2	5718.2	32697.8				
5							

Remarks			
* BOTTOM HOLE PRESSURE @ (-8395) 11400' USED FOR PRESSURE CALCULATIONS			
WELL PRODUCED 45 BBLs WATER IN 4.0 hrs. = 270 BWPd			
Approved By Division	Conducted By	Calculated By	Checked By
JARREL WELL TESTING, INC.	Joe A. Coleman	Joe A. Coleman	PE #2208