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Form C-122
Revision 9-1-55

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

RECEIVED

FEB 26 1976

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-7-76			
Company LLANO, INC. ✓				Connection		O.C.C. ARTESIA, OFFICE	
Pool Atoka Penn (Gas)				Formation Morrow		Unit	
Completion Date 2-7-76		Total Depth 9342		Plug Back TD 9275		Elevation 3287.5 GL	
Form or Lease Name Higgins Trust, Inc.							
Csg. Size 4 1/2"		Wt. 10.5/11.6		Perforations: 9150 To 9164		Well No. 1	
Teg. Size 2 3/8"		Wt. 4.7		Perforations: 9167 To 9175		Unit Sec. Twp. R1/4	
Type Well - Single - Bradenhead - G.O. or G.O. Multiple Single		Packoff Set At 8911		County Eddy		State New Mexico	
Producing Thru TBG		Reservoir Temp. °F 152 @ 9150		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 9150		H 9150		Gg .5941		% CO ₂ .516	
				% N ₂ .308		% H ₂ S 0	
Prover		Meter Run 3"		Taps FLG			

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							2803.0		Pkr		2
1.	3 x 1.75			525.0	9.75	114	2730.0	71	"		1
2.	3 x 1.75			535.0	25.5	94	2650.0	73	"		1
3.	3 x 1.75			545.0	52.5	79	2535.0	74	"		1
4.	3 x 1.75			560.0	91	85	2396.5	69	"		1
5.	S.I.						2790.0		"		1

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	15.61	72.44	538.2	.9518	1.298	1.031	1440
2	15.61	118.23	548.2	.9688	1.298	1.036	2404
3	15.61	171.19	558.2	.9822	1.298	1.041	3547
4	15.61	228.39	573.2	.9768	1.298	1.040	4701
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	No fluid	Mcf/bbl.
1	.80	574	1.62	.941	A.P.I. Gravity of Liquid Hydrocarbons	52 @ 68	
2.	.82	554	1.57	.931	Specific Gravity Separator Gas	.5941	X X X X X X X X
3.	.83	539	1.52	.922	Specific Gravity Flowing Fluid	X X X X X	-
4.	.85	545	1.54	.924	Critical Pressure	672	- P.S.I.A.
5.					Critical Temperature	354	- R

P _c 2816.2 P _c 27931.0				
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1	7525.1	2753.0	7579.0	352
2	7092.6	2692.0	7246.9	684.1
3	6493.3	2611.3	6818.9	1112.1
4	5806.7	2524.0	6370.6	1560.4
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 22.531$$

$$ACF = Q \left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = 18,462 \text{ MCFPD}$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 12.821$$

Absolute Open Flow	18,462	Mcf/d @ 15.025	Angle of Slope °	50.680	Slope, n	.819
Remarks:						

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
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