NEW MEXICO OIL CONSERVATION COMMSS

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JUL 18 19[illegible]
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 5-17-79	
Company: Southland Royalty Company			Connection: Undesignated		Unit
Pool: ~~Undesignated~~ Tres y Back Morrow			Formation: Morrow		
Completion Date: 5-14-79	Total Depth: 11775		Plug Back TD: 11520	Elevation: 3313	Farm or Lease Name: State 23A Comm.
Csg. Size: 4.500 / Wt.: 11.6 / d: 3.920 / Set At: 11775			Perforations: From 11278 To 11465		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 11165			Perforations: From 0 To 0		Unit: L / Sec.: 23 / Twp.: 19S / Rge.: 29E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 11165		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 171 @ 11372		Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11372	11372	0.650	0.89	3.24	0	0	2.1	Flange

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					3340	69			48.0
1.	2.07 x 1.000	165	12.0	75	2888	70	0	0	1.0
2.	2.07 x 1.000	165	37.0	90	2532	73	0	0	1.0
3.	2.07 x 1.000	340	28.0	85	2090	74	0	0	1.0
4.	2.07 x 1.000	340	30.0	80	1720	76	0	0	1.0
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, Mcfd
1	4.95	46.24	178.2	0.9859	1.2400	1.0152	284
2.	4.95	81.20	178.2	0.9723	1.2400	1.0135	491
3.	4.95	99.45	353.2	0.9768	1.2400	1.0282	613
4.	4.95	102.94	353.2	0.9813	1.2400	1.0294	638
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.27	535	1.47	0.970
2.	0.27	550	1.51	0.973
3.	0.53	545	1.50	0.946
4.	0.55	540	1.48	0.944
5.				

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 54.2 Deg.
Specific Gravity Separator Gas 0.650 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.650
Critical Pressure 668 P.S.I.A. 668 P.S.I.A.
Critical Temperature 364 R 364 R

P_c 3342.5 P_c^2 11172

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	8417	2890	8351	2821
2	6478	2531	6406	4766
3	4423	2091	4373	6799
4	3004	1722	2964	8208
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3611$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2631$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 806$

Absolute Open Flow 806 Mcfd @ 15.025 Angle of Slope θ 52.9 Slope, n 0.758

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	BJ TESTING	D. CRAIG	D. CRAIG