

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

RECEIVED Form C-122
Rev. 11-9-1-65

NOV - 8 1978

Type Test ☒ Initial ☐ Annual		Date 10-12-78		SPUR DATE 06-10-78	
Company Read and Stevens, Inc. ✓		Connection To Air		ARTESIA, OFFICE	
Pool Buffalo Valley		Formation Penn		Unit I	
Completion Date 10-12-78		Total Depth 9550		Perforations 8880	
Csg. Size 5 1/2	Wt. 4.7	d 1.995	Set At 8533	Perforations: From 8542 To 8616	Well No. 3
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 8533	Perforations: From open To end	Unit Sec. Twp. Rge. I 7 15 28
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				County Chaves	
Producing Thru Tbg.		Reservoir Temp. °F 134 @ 8640		State New Mexico	
L 8640	H 8640	Gg .674	% CO ₂	% N ₂	% H ₂ S
Prover 4"			Meter Run Flg.		

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.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							2247				42 hrs.
1.	4 x	.500		480	8.0	95	2015				1 hr.
2.	4 x	.500		485	20.0	88	1844				1 hr.
3.	4 x	.500		490	33.0	84	1657				1 hr.
4.	4 x	.500		495	64.0	82	1373				1 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, Mcfd
1	1.182	62.81	493.2	.9680	1.218	1.044	91
2	1.182	99.82	498.2	.9741	1.218	1.047	147
3	1.182	128.86	503.2	.9777	1.218	1.049	190
4	1.182	180.35	508.2	.9795	1.218	1.049	267
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	TSTM	Mcf/bbl.
1	.74	555	1.45	.917	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	.74	548	1.43	.913	Specific Gravity Separator Gas	XXXXXXX	
3	.75	544	1.42	.909	Specific Gravity Flowing Fluid	XXXXX	
4	.76	542	1.42	.908	Critical Pressure	669	P.S.I.A.
5					Critical Temperature	382	R

NO.	P _g	P _w	P _w ²	P _g ² - P _w ²
1	2968.2	2046.0	4186.1	922.4
2	2759.2	1901.0	3613.8	1494.7
3	2526.2	1742.2	3035.3	2093.2
4	2180.2	1512.1	2286.4	2822.1
5				

(1) $\frac{P_g^2}{P_g^2 - P_w^2} = \frac{1810}{P_g^2 - P_w^2}$

ACF = $\left[\frac{P_g^2}{P_g^2 - P_w^2} \right]^n = .474$

(2) $\left[\frac{P_g^2}{P_g^2 - P_w^2} \right]^n = 1.774$

Absolute Open Flow	474	Mcf/d @ 15.025	Angle of Slope	46	Slope, n	.966
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Remarks: Calculated from known B.H.P. Bottom hole shut-in pressure 3248.2. Made small amount of fluid.

Approved By Commission:	Conducted By: Reston, Pagan	Calculated By: Reggie Reston	Checked By:
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