

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

Form O-177
Revised 9-1-65

RECEIVED

JSF
File

JUN 13 1983

Type Test: ☐ Initial ☐ Annual ☒ Special						Test Date: 5-6-83		JUN 13 1983	
Company: WALLACE OIL & GAS				Connection: AIR NEW WELL				O. C. D.	
Well: 40 <i>Walden</i>				Formation: ABO				Artesia, Office	
Completion Date: 4-24-83 5-6-83		Total Depth: 4204 4179		Plug back TD: 4204 4179		Elevation: 3505		Name of Lease: PAYTON	
Casing Size: 4.500	ID: 10.5	d: 4.052	Set At: 4134	Perforations: From 4006 To 4020	Well No.: 1				
Reg. Size: 2.375	ID: 4.7	d: 1.995	Set At: 3994	Perforations: From 0 To 0	Unit: J Sec. 8 Twp. 11S Rge. 25E				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At: 0		County: CHAVES	
Producing thru: TUBING		Reservoir Temp. °F: 100 @ 4013		Mean Annual Temp. °F: 60.0		Baro. Press. - P _a : 13.2		State: NEW MEXICO	
L: 4013	H: 4013	G _g : 0.685	% CO ₂ : 2.58	% N ₂ : 7.39	% H ₂ S: 0	Provor: 0	Meter Run: 3.1	Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Provor 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.		CHOKE
5!							646	72°			72.0
1.	3.07	X	0.250	400	8.0	90°	629	72°	635	4/64	1.0
2.	3.07	X	0.250	460	12.0	91°	616	72°	620	5/64	1.0
3.	3.07	X	0.250	460	19.0	85°	603	72°	605	6/64	1.0
4.	3.07	X	0.250	480	29.5	79°	586	72°	588	7/64	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compens. Factor, F _{sp}	Rate of Flow Q, Mcf/D
1	0.30	57.49	413.2	0.9723	1.2082	1.0308	21
2	0.30	75.36	473.2	0.9715	1.2082	1.0349	27
3	0.30	94.82	473.2	0.9768	1.2082	1.0364	35
4	0.30	120.62	493.2	0.9822	1.2082	1.0395	44
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbon	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.62	550.	1.53	0.941	0	0	0.685	0.685	667	361
2	0.71	551.	1.53	0.934						
3	0.71	545.	1.51	0.931						
4	0.74	539.	1.49	0.925						
5										

NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} =$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$
1	412.	641.	411.	22.	5.7733	3.5337
2	396.	628.	394.	38.		
3	380.	615.	378.	55.		
4	359.	598.	358.	75.		
5						

Absolute Open Flow: 155. Mcf/D @ 15.025 Angle of Slope θ : 54.25 Slope, n: 0.720

Remarks:

Approved By Commission:	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT & CATHEY	Checked By:
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Post ID-2
 6-24-83
 Comp & BK