

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9/9/82		RECEIVED	
Company Sanders Oil & Gas Company				Connection Transwestern Pipeline				NOV 3 1982	
Pool Penjack <i>Abn</i>				Formation Abo				Unit O.C.D.	
Completion Date 9/6/82		Total Depth 4451		Plug Back TD 4420		Elevation 3649 GL.		Form 11111 <i>11111</i> Mesa Diablo Federal	
Ceq. Size 4 1/2	Wt. 10.5	d 	Set At 4420	Perforations: From 3945 To 4340		Well No. 1			
Trq. Size 2 3/8	Wt. 4.7	d 	Set At 3920	Perforations: From NA To		Unit 9	Sec. 35	Twp. 9S	Rye. 25E
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At None		County Chaves	
Producing Thru Perf.		Reservoir Temp. °F 102 @ 4137		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.20		State New Mexico	
L 4137	H 4137	Gg 0.657	% CO ₂ 0.16	% N ₂ 7.58	% H ₂ S 0	Prover 0	Meter Run 4.0	Taps Flange	

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									1126	102	63
1.	4.03 X 1.500			450	8.0	64	0	0	1093	102	1.0
2.	4.03 X 1.500			455	2.0	56	0	0	1059	102	1.0
3.	4.03 X 1.500			450	43.0	56	0	0	1035	102	1.0
4.	4.03 X 1.500			455	71.0	67	0	0	979	102	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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	60.87	463.2	0.9962	1.2336	1.0400	843
2	10.84	96.77	463.2	1.0039	1.2336	1.0430	1355
3	10.84	141.13	463.2	1.0039	1.2336	1.0425	1975
4	10.84	182.32	468.2	0.9933	1.2336	1.0395	2518
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
1	0.70	524	1.47	0.925	0	0
2	0.71	516	1.45	0.919	0.657	XXXXXXX
3	0.70	516	1.45	0.920	XXXXX	0.657
4	0.71	527	1.48	0.926	657. _____ P.S.I.A.	657. _____ P.S.I.A.
5					355. _____ R	355. _____ R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		991	982	59.
2		961	924	117.
3		940	883	158.
4		890	793	248.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.1936$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.9625$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7459$

Absolute Open Flow <u>7459</u> Mcfd @ 15.025	Angle of Slope @ <u>45</u>	Slope, n <u>.758</u>
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Remarks: _____

Approved By Division	Conducted By:	Calculated By:	Checked By:
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