

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-11-88			
Company BRAN OIL CORPORATION						Connection 10-12-88		NOV 23 '88	
Pool Pecos Slope ABO						Formation ABO		Unit ARTESIA, CERRILLO	
Completion Date 10-7-88		Total Depth 4400		Plug Back TD 4325		Elevation 3615		Farm or Lease Name OSAGE 33 COM	
Coq. Size 4 1/2	Wt. 11.5	d	Set At TD	Perforations: From 3951 To 3994		Well No. 1			
Thq. Size 2-3/8	Wt.	d	Set At 3835	Perforations: From OPEN To ENDED		Unit Sec. Twp. Rge. B 33 6S 26E			
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 8		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO	
L	H	G _a .65	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 2	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							417		420		
1.	2	x	1.375	125	3	55	398		415		1 hr.
2.	2	x	1.375	130	12	55	362		380		"
3.	2	x	1.375	130	20	60	323		345		"
4.	2	x	1.375	140	37	60	255		285		"
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	10.2	20.288	137.2	1.009	1.2403	1.0153	263
2	10.2	41.145	143.2	1.009	1.2403	1.0127	536
3	10.2	53.516	143.2	1.000	1.2403	1.0102	684
4	10.2	75.288	153.2	1.000	1.2403	1.0076	960
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas _____ X X X X X X X X
3					Specific Gravity Flowing Fluid _____ X X X X X
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

P _c 469.2 P _c ² 220					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.61$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		451.2	203.6	16.6				
2		416.2	173.2	46.9				
3		380.2	144.6	75.6				
4		313.2	98.1	122.1				
5								

Absolute Open Flow 1546 _____ Mcfd @ 15.025					Angle of Slope θ 51 _____		Slope, n .81 _____	
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Remarks: ALL BOTTOM HOLE PRESSURES DONE WITH AMERADA TYPE GAUGE.			
Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: MIKE KELLY	Checked By: