

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4/5/83	
Company The Desana Corporation		Connection None	
Pool Undesignated		Formation San Andres	
Completion Date 3/25/83		Total Depth 7250'	Plug Back TD 2310'
		Elevation 4602' GL	
Cas. Size 4 1/2"	Wt. 10.5	d 4.090	Set At 2464'
		Perforations: From 2070' To 2091'	
Trp. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 2020'
		Perforations: From Open To Ended	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At 2020'	Well No. 1
Producing Thru Tubing		Reservoir Temp. °F 166 @ 2080'	Mean Annual Temp. °F 60
		Baro. Press. - P _a 13.2	County Quay
State New Mexico			
L 2080	H -	G _g 0.8807	% CO ₂ 0.211
		% N ₂ 71.503	% H ₂ S -
Prover -		Meter Run 1.939	Taps F

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							680	60	PACKER		8 DAYS
1.	1.939	7/64	1.00	80	10	62	633	60			0.75 hr
2.	1.939	8.5/64	1.00	80	18	62	575	60			1.0 hr
3.	1.939	10/64	1.00	80	27	62	510	61			1.0 hr
4.	1.939	11.5/64	1.00	80	32	62	430	61			1.0 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.999	30.53	93.2	0.9981	1.065	-	162.23
2	4.999	40.96	93.2	0.9981	1.065	-	217.65
3	4.999	50.16	93.2	0.9981	1.065	-	266.54
4	4.999	54.61	93.2	0.9981	1.065	-	290.19
5							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.		
					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
					Specific Gravity Separator Gas _____ 0.8807 _____ X X X X X X X X		
					Specific Gravity Flowing Fluid _____ X X X X X		
					Critical Pressure _____ 545 _____ P.S.I.A. _____ P.S.I.A.		
					Critical Temperature _____ 254 _____ R _____ R		

P _c 725.2 P _c ² 525.9			
NO.	P ₁ ²	P _w *	P _w ²
1		663.2	439.8
2		625.2	390.9
3		583.2	340.1
4		510.2	260.3
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.830$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 519.22$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.948$$

Absolute Open Flow _____ 519 _____ Mcfd @ 15.025	Angle of Slope @ _____ 57° 20'	Slope, n _____ 0.641
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Remarks: * BOTTOM HOLE PRESSURE @ (+2522) 2080' USED FOR PRESSURE CALCULATIONS

Approved By Division	Conducted By: JARREL WELL TESTING INC.	Calculated By: D. Dickerson	Checked By: PE #2208 Joe A. Coleman
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