

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

3 NMOCD 1 File

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2-1-89	
Company DUGAN PRODUCTION CORP.		Connection	
Pool Basin Dakota		Formation Dakota	
Completion Date		Total Depth 6024'	Plug Back TD 5922'
		Elevation 5685' GL	
Farm or Lease Name Nice		Well No. 2	
Csq. Size 4 1/2"	Wt. 10.5 #	Set At 6024'	Perforations: From To
Thq. Size 2-1/16"	Wt. 3.3#	Set At 5820'	Perforations: From To
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single		Packer Set At	County San Juan
Producing Thru		Reservoir Temp. °F	Mean Annual Temp. °F
		Baro. Press. - P _a	
State New Mexico			
L	H	G _g .650	% CO ₂ % N ₂ % H ₂ S
Prover		Meter Run	Taps

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							1590		1680		7 days
1.											
2.											
3.	1/2" choke						70		320		3 hrs
4.											
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							
2							
3	5.4315		82	.9887	.9837	1.000	433
4							
5							

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

P _c 1692	P _c ² 2,862,864		
NO.	P _t ²	P _w	P _w ²
1			
2			
3	332	110,224	2,752,640
4			
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0400$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 446$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^{.75} = 1.0299$

Absolute Open Flow	446	Mcf/d @ 15.025	Angle of Slope	.75
Remarks:				

Approved By Division	Conducted By: Brown	Calculated By: Jacobs	Checked By:
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