

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3/23/87			
Company Samedan Oil Corporation						Connection None			
Well Queen Unit <i>Jalmat</i>						Formation Yates			
Completion Date 3/9/87		Total Depth 3725'		Plug Back TD 3285'		Elevation 3304' GL		Farm or Lease Name Hughes Federal	
Cas. Size 4 1/2"	Wt. 10.5#	d 4.052	Set At 3725'	Perforations: From 2608 To 2883		Well No. 3			
Tub. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 2579	Perforations: From Open To Ended		Unit Sec. Twp. Rge. N 17 23s 37e			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 2579'		County Lea	
Producing Thru Tbg		Reservoir Temp. °F 100@ 2579'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 2579	H 2579	Gg .765	% CO ₂ 7.442	% N ₂ 11.07	% H ₂ S -	Prover -	Meter Run 2"	Taps Flg	

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							1258		PACKER		264 hrs
1.	2	X	1.00	40	5	60	1248				1 hr
2.	2	X	1.00	40	12	60	1238				1 hr
3.	2	X	1.00	40	26	60	1230				1 hr
4.	2	X	1.00	40	54	60	1201				1 hr
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, Mscfd
1	4.946	16.31	53.2	1.00	1.143	Nil	92
2	4.946	25.27	53.2	1.00	1.431	Nil	143
3	4.946	37.19	53.2	1.00	1.143	Nil	210
4	4.946	53.60	53.2	1.00	1.143	Nil	303
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcl/bbl.			
1	.08	520	1.42	Nil	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
2	.08	520	1.42	Nil	Specific Gravity Separator Gas .765 XXXXXXXXXX			
3	.08	520	1.42	Nil	Specific Gravity Flowing Fluid XXXXXX			
4	.08	520	1.42	Nil	Critical Pressure 678 P.S.I.A. _____ P.S.I.A.			
5					Critical Temperature 366 °R _____ °R			

F _c 1271.2 P _c ² 1616					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 11.461$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.434$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1,646$			
1	1591	1261.2	1591	25				
2	1565	1251.3	1566	50				
3	1546	1243.4	1546	70				
4	1474	1214.6	1475	141				
5								

Absolute Open Flow 1,646		Mscfd @ 15.025		Angle of Slope @ 55.25°		Slope, n .694	
Remarks:							

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: D. Dickerson	Checked By: D. Dickerson
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